

ENGINEERING INVESTIGATIONS AT INACTIVE HAZARDOUS WASTE SITES

PHASE 1 INVESTIGATION

Serv-All Laundry

Site No. 152077

Town of Islip, Suffolk County

Final - June 1987



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**BUREAU OF
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DIVISION OF SOLID AND
HAZARDOUS WASTE**

New York State Department of Environmental Conservation

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

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

Prepared by:



**EA SCIENCE AND
TECHNOLOGY**

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

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

**SERV-ALL LAUNDRY
TOWN OF ISLIP, SUFFOLK COUNTY
NEW YORK I.D. NO. 152077**

Prepared for

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

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December 1986

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1. EXECUTIVE SUMMARY

The Serv-All Laundry site (New York I.D. No. 152077, EPA I.D. No. DO6 8026657) is a laundry/dry-cleaning establishment located at 8 Drayton Avenue, Town of Islip, Suffolk County, New York (Figures 1-1 and 1-2, Photos 1-1 through 1-8). The property is owned and operated by Mr. Ralph Colantuoni of Serv-All Uniform Rentals, Inc. In 1966, the Town of Islip Building Department issued a certificate of occupancy for the building. In 1969, Serv-All, under the name of Collep Association Corporation, assumed ownership of the property for the purpose of establishing a laundry service. In 1972, the Town of Islip issued a certificate of occupancy for an addition to the existing building which included the addition of dry-cleaning machines.

Since approximately the early 1970s, Serv-All has been disposing of unknown quantities of washwater overflow without a SPDES permit. According to onsite sampling of leachpools, cesspools, and storm drains conducted by the Suffolk County Department of Health Services (SCDHS) between 1978 and 1983, washwater and sludge were contaminated with tetrachlorethylene, heavy metals, and vinyl chloride. Serv-All was notified repeatedly during 1979-1983 to discontinue unlicensed discharges. Serv-All removed contaminated water and sludge from its leachpools and backfilled and paved over the area in 1982-1983.

In 1983, a SCDHS Bureau of Water Resources report discussed a ground-water contamination plume in the area of Serv-All and further indicated Serv-All as the only probable source for the contamination. Further investigations and monitoring would be necessary to establish proof that Serv-All was the source of contamination.

The preliminary HRS scores for this site are as follows: Migration Score (S_M) = 37.93 (S_{gw} = 65.62, S_{sw} = 0, S_a = 0), Fire and Explosion Score (S_{FE}) = N/A, and Direct Contact Score (S_{DC}) = 0. There is insufficient data available to confirm a release of contaminants to ground water. Although analytical data is available for wastewater samples and sludge samples, ground-water data from the site are lacking, requiring performance of a Phase II investigation. The proposed Phase II investigation will include geophysical surveys, the installation and testing of three observation wells, and the collection and analysis of ground-water and sediment samples. The estimated cost of the proposed Phase II study is \$59,625.

Site Coordinates:
 Latitude: 40° 45' 16"
 Longitude: 73° 15' 43"

SERV-ALL LAUNDRY

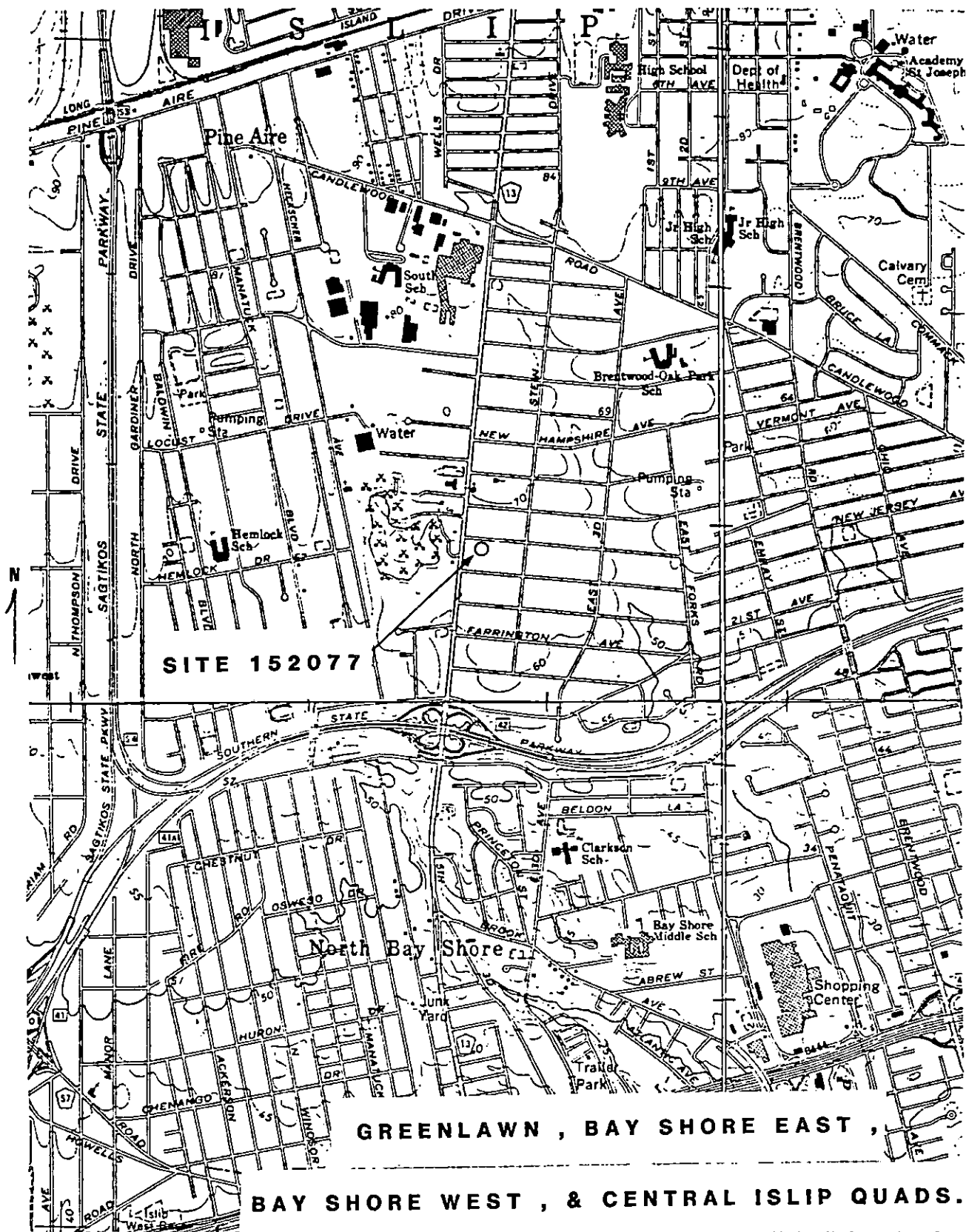


Figure 1-1.

Scale 1:24,000

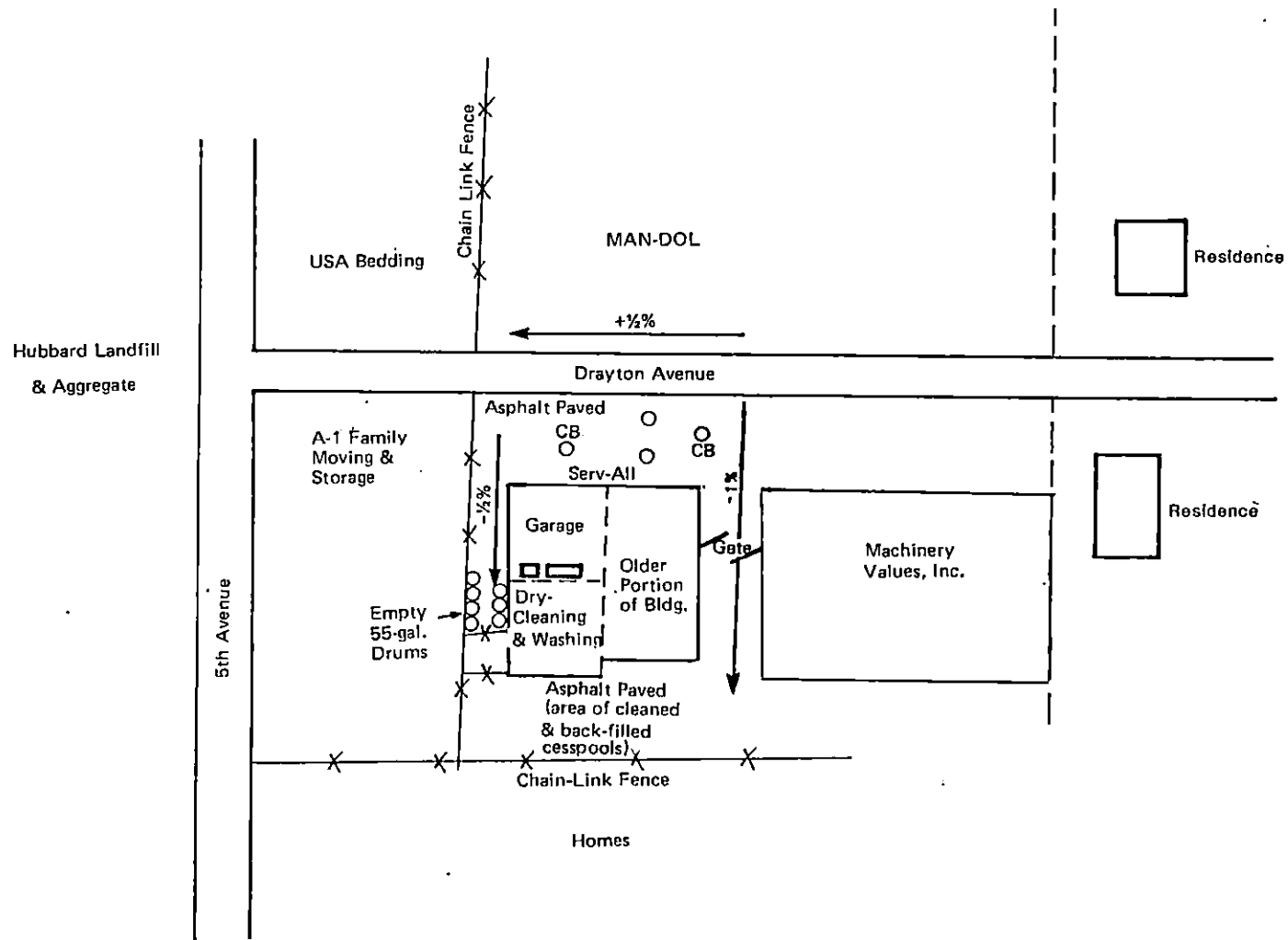
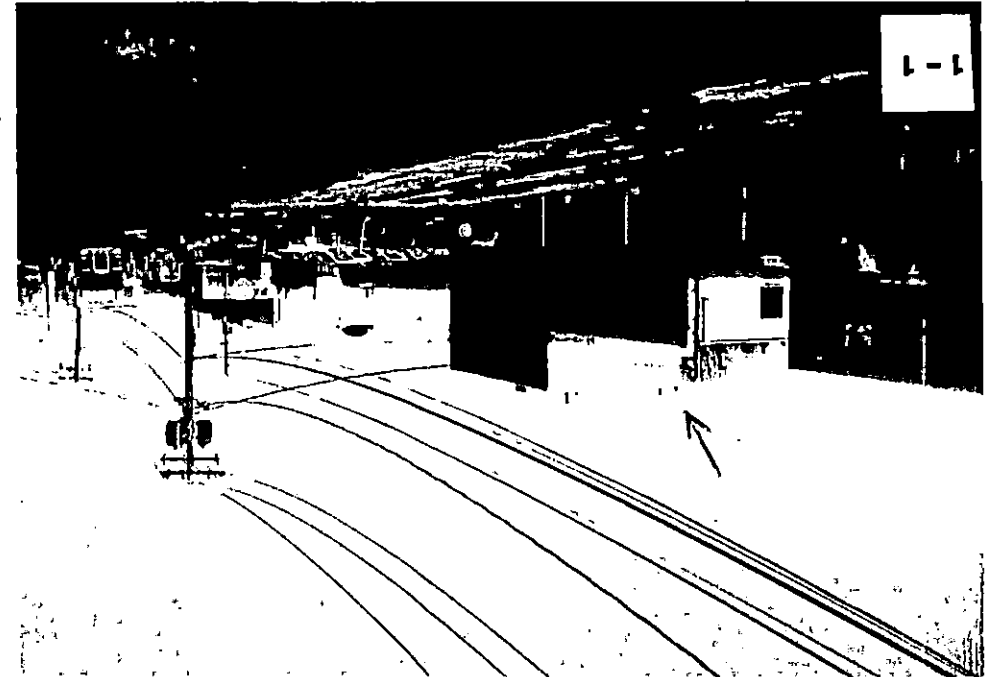
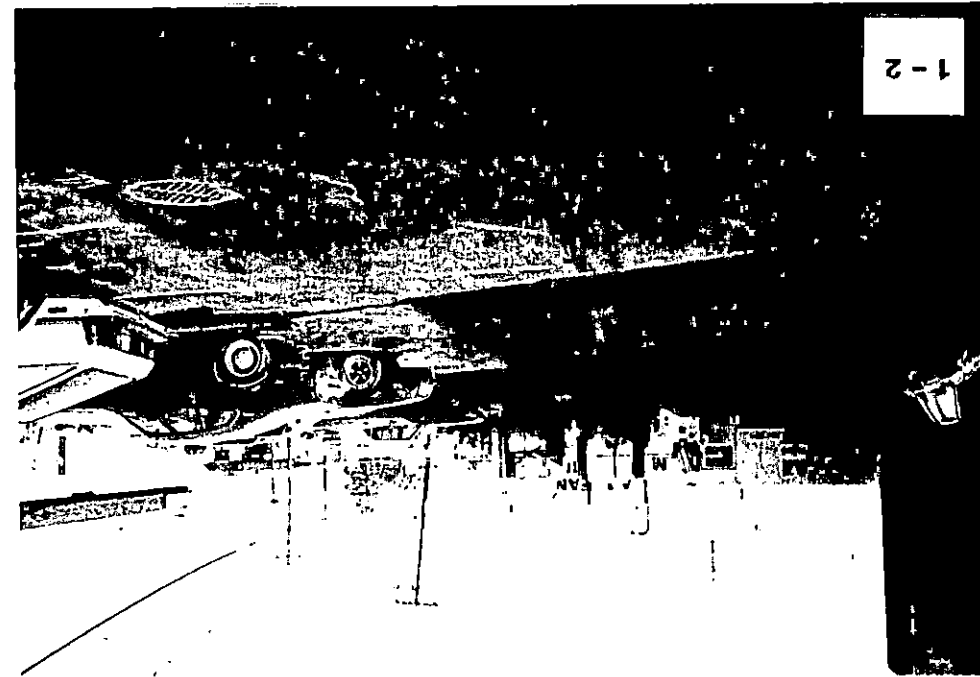
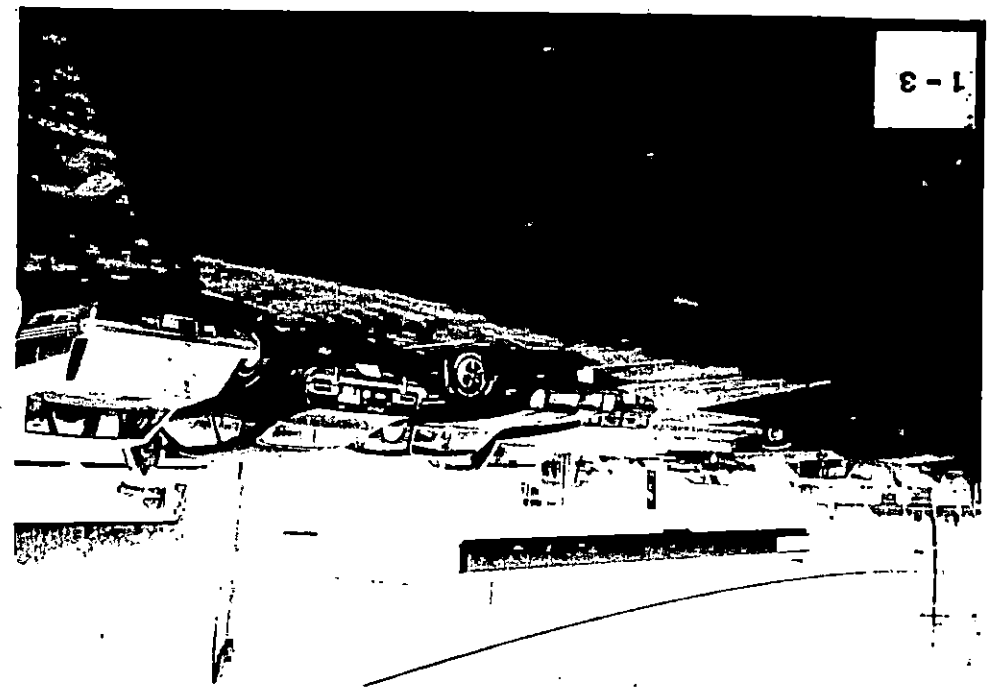


Figure 1-2. Site sketch. Serv-All Laundry, 22 January 1986. (No scale.)



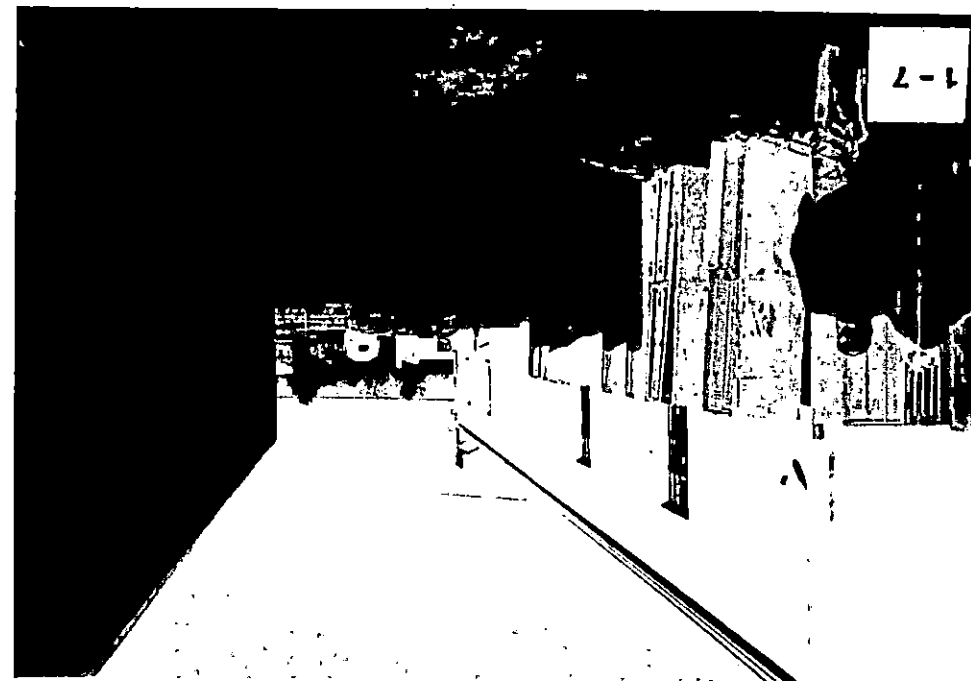
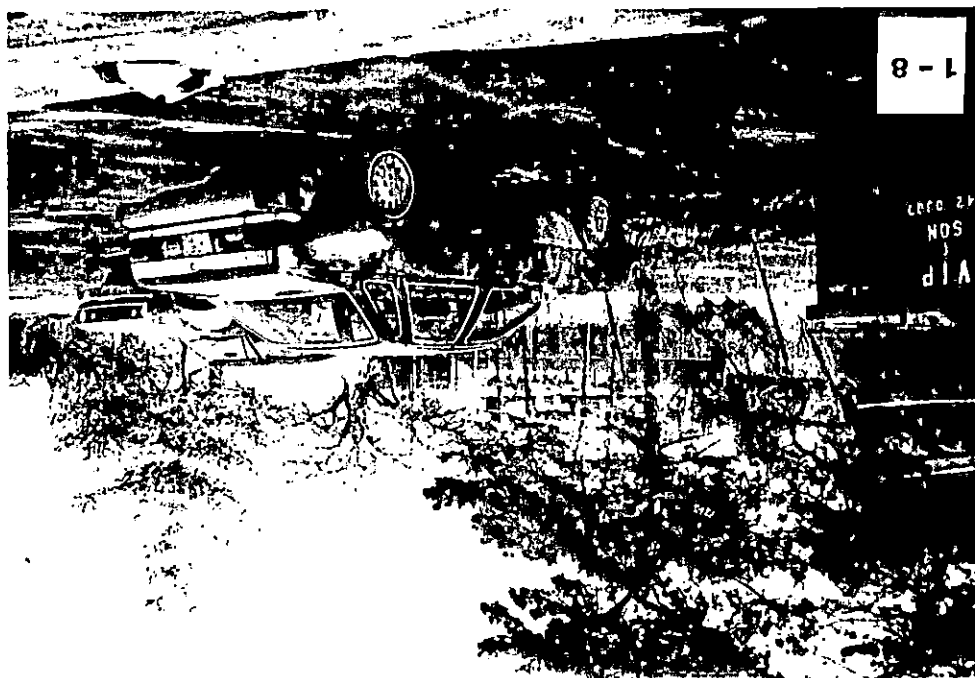


PHOTO LOG - SERV-ALL LAUNDRY

<u>Photo</u>	<u>Description</u>
1-1	Southwest view across the front of the Serv-All facility and adjacent properties east and west of the site.
1-2	Western view across the paved area located in front of the Serv-All facility. The eastern-most catch basin is located in the lower-right portion of the photo.
1-3	Northwestern view across a portion of the paved area located in front of the Serv-All facility. The northern-most sanitary pool manhole cover is located in the lower-left portion of the photo.
1-4	Southern view along the western side of the Serv-All facility including a portion of a garage door in the front of the building.
1-5 through 1-7	Panoramic view from the southeast corner of the Serv-All property, beginning with a western view (Photo 1-5) across the southern portion of the facility and ending with a northerly view (Photo 1-7) along the eastern side of the Serv-All building.
1-8	Southwest view from the southern edge of the Serv-All property across the northern end of an adjacent residential property.

2. PURPOSE

The Serv-All Laundry site was listed in the New York State Registry of Inactive Hazardous Wastes Sites because of a history of unpermitted discharges of contaminated washwater and sniffer condensate to onsite cesspools/leachpools which are the suspected source of ground-water contamination with various organic solvents southeast of the site.

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

3. SCOPE OF WORK

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

<u>Contact</u>	<u>Information Received</u>
Mr. Ralph Colantuoni Serv-All Uniform Rental, Inc. 8 Drayton Avenue Bay Shore, New York 11706	Site Interview
Mr. Vincent J. Hand Attorney and Counsellor at Law 260 West Main Street Bay Shore, New York 11706 (516) 666-4600	Site Interview
Mr. Donald M. Hand, P.E. 144 Medford Avenue Patchogue, New York 11772 (516) 475-0349	Site Interview
Mr. Isidore H. Doroski Public Health Sanitarian Suffolk County Department of Health Services Bureau of Environmental Health 15 Horseblock Place Farmingville, New York 11738 (516) 451-4633	Site Interview
Mr. Anthony Candela, P.E. Senior Sanitary Engineer New York State Department of Environmental Conservation SUNY Campus - Building 40 Stony Brook, New York 11790 (516) 751-7900	Site file
Mr. James H. Pim, P.E. Suffolk County Department of Health Services Hazardous Materials Management 15 Horseblock Place Farmingville, New York 11738 (516) 451-4634	Interview and site file

Contact

Mr. Steve Carey/Mr. Dennis Moran
Suffolk County Department of Health Services
Bureau of Water Resources
225 Rabro Drive East
Hauppauge, New York 11788
(516) 348-2893

Mr. William Schickler/Mr. Robert Bowen
Suffolk County Water Authority
Sunrise Highway and Pond Road
Oakdale, New York 11769
(516) 589-5200

Mr. Dan Fricke
Suffolk County Cooperative
Extension Association
264 Griffing Avenue
Riverhead, New York 11901
(516) 727-7850

Mr. Doug Pica
New York State Department of
Environmental Conservation
Division of Water
The Loop Road
SUNY Campus - Building 40
Stony Brook, New York 11790
(516) 751-7900

Mr. Allan S. Connell
District Conservationist
U.S. Department of Agriculture
Soil Conservation Survey
127 East Main Street
Riverhead, New York 11901

Mr. Tom Greene
Chief Fire Inspector
Town of Islip
1 Maniton Court
Islip, New York 11751
(516) 224-5477

Mr. Kevin Walter, P.E.
New York State Department of
Environmental Conservation
Division of Hazardous Waste Enforcement
50 Wolf Road
Albany, New York 12233-0001
(518) 457-5637

Information Received

Ground-water use; public
water supplies and ground-
water monitoring information.

Public water supply and
distribution

Ground-water and surface
water use for irrigation

Ground-water use for
irrigation

Ground-water use for
irrigation

Information regarding the
threat of fire and/or
explosion at the site

No file/information

Contact

Information Received

Mr. John Iannotti, P.E.
New York State Department of
Environmental Conservation
Bureau of Remedial Action
50 Wolf Road
Albany, New York 12233-0001
(518) 457-5637

No file/information

Mr. Earl Barcomb, P.E.
New York State Department of
Environmental Conservation
Bureau of Municipal Wastes
Section of Landfill Operations
Vatrano Road
Albany, New York 12205
(518) 457-2051

No file/information

Mr. Peter Skinner, P.E.
New York State Attorney
General's Office
Room 221
Justice Building
Albany, New York 12224
(518) 474-2432

No file/information

Mr. Ron Tramontano/Mr. Charlie Hudson
New York State Department of Health
Bureau of Toxic Substances Assessment
Nelson A. Rockefeller Empire State Plaza
Corning Tower Building, Room 342
Albany, New York 12237
(518) 473-8427

Site file

Mr. James Covey, P.E.
New York State Department of Health
Nelson A. Rockefeller Empire State Plaza
Corning Tower Building
Albany, New York 12237
(518) 473-4637

Community Water
Supply Atlas

Mr. Rocky Paggione, Atty./
Mr. Louis A. Evans, Atty.
New York State Department of
Environmental Conservation
Division of Environmental Enforcement
202 Mamaroneck Avenue
White Plains, New York 10601-5381
(914) 761-6660

No file/information

Contact

Mr. Marsden Chen, P.E.
New York State Department of
Environmental Conservation
Bureau of Site Control
50 Wolf Road
Albany, New York 12233-0001
(518) 457-0639

Mr. John W. Ozard
Senior Wildlife Biologist
New York State Department of
Environmental Conservation
Wildlife Resources Center
Significant Habitat Unit
Delmar, New York 12054
(518) 439-7486

Mr. Perry Katz
U.S. Environmental Protection Agency
Region II
Room 757
26 Federal Plaza
New York, New York 10278
(212) 264-4595

Mr. Charles Guthrie
Regional Fisheries Manager
New York State Department of
Environmental Conservation
SUNY Campus - Building 40
Stony Brook, New York 11790
(516) 751-7900

Mr. Brando
Superintendent
Brentwood Water District
(516) 273-4565

Information Received

Registry form

Significant habitats

No file/information

Recreational use of
surface water

Public water safety

4. SITE ASSESSMENT - SERV-ALL LAUNDRY

4.1 SITE HISTORY

The Serv-All Laundry site is a commercial washing and dry cleaning establishment located at 8 Drayton Avenue in the Town of Islip, Suffolk County, New York. The two-story, freestanding industrial building contains 9,430 ft² and is situated on a 20,000 ft² lot. The property is owned and operated by Mr. Ralph Colantuoni of Serv-All Uniform Rental, Inc. (Appendixes 1.1-1 and 1.1-2).

In 1966, the Islip Town Building Department issued a certificate of occupancy and, in 1969, Serv-All, under the name of Collep Assoc. Corp., assumed ownership of the property for laundering services. In 1972, the Building Department issued a certificate of occupancy for an addition to the building which included the addition of dry-cleaning machines (Appendix 1.1-2).

Serv-All's first inspection occurred in April 1978 and the related SCDEC industrial waste inspection report noted 50 drums of waste dry-cleaning solvent sludge (tetrachloroethylene aka perchloroethylene, grease, and detergent) stored behind the building and ordered Serv-All to have them removed. Hicky Carting, an unlicensed carter, was engaged by Serv-All and removed the drums to the Islip Town Landfill sometime in June 1978. Serv-All was exempt from a NYSDEC hearing (concerning its discharge without a valid SPDES permit) when it agreed to testify against Hicky Carting for depositing hazardous waste drums in the Islip Landfill. In January 1979, however, misdemeanor information was

filed against Serv-All by the SCDA Frauds Bureau for violations of the Suffolk County Sanitary Code, E.C.L., and penal law (action was apparently never pursued) (Appendix 1.1-2).

In May 1979, a SCDHS "for the record" memorandum describes complaints of overflowing cesspools and noxious odors on Serv-All's property. SCDHS officials were refused access but from adjacent property observed and noted the overflow and odors in addition to 12 leaking storage drums stored outside the Serv-All building (Appendix 1.1-3).

August 1979 samples from an overflowing leachpool at Serv-All collected by SCDHS revealed excessive amounts of pH, iron, lead, and cadmium. Serv-All was again informed of its E.C.L violation in discharging washwater without a SPDES permit, and SPDES application forms were enclosed with this notice (Appendixes 1.1-4 through 1.1-7).

In January and February 1980, Serv-All was first advised, then notified, to hold rather than discharge the contaminated water from its sniffer condensate which had shown 262,000 ppb and 620 ppb tetrachloroethylene in SCDHS samples (Appendixes 1.1-2 and 1.1-8).

In August 1980, Serv-All had signed an Order on Consent requiring a fee penalty payment, submission of an engineering report, sealing of all floor drains, pumping out of contaminated pools, and the installation of a high level alarm system (Appendixes 1.1-2 and 1.1-9). However, analytical results of samples collected from leachpools by SCDHS on 27 August 1980 and 17 February 1981, and inspections continued to reveal excess metals in tanks, pools, and discharge

washwater (Appendixes 1.1-2 and 1.1-10). The leachpools were pumped out on 27 March 1980 (Appendix 1.1-2). Samples were again collected from various leachpools by SCDHS on 16 June 1982 and 5 November 1982. The results indicated excessive levels of copper, iron, nickel, zinc, lead, cadmium, silver, tetrachloroethylene, and six other organic compounds (Appendixes 1.1-2 and 1.1-11).

At an informal SCDHS meeting on 4 November 1982, Serv-All agreed not to discharge industrial wastes without a SPDES permit, to submit an updated engineering report, pump out all contaminated pools, and pay a \$250 fine with \$250 suspended as per the Order on Consent (Appendixes 1.1-2 and 1.1-12). Between December 1982 and March 1983, Serv-All had storm drains cleaned, contaminated water and sludge removed from various leachpools, and six of nine cesspools abandoned (Appendixes 1.1-2 and 1.1-13 through 1.1-14). New septic tanks and high level alarms were installed in March 1983; however, Serv-All was still discharging washwater without a SPDES permit (Appendixes 1.1-2 and 1.1-15). By May 1983, all items on the Order on Consent were satisfied (Appendixes 1.1-14 through 1.1-19).

In September and October 1983, cesspool and leachpool samples taken from Serv-All by SCDHS revealed the presence of unpermitted levels of dry-cleaning solvents and vinyl chloride. These discharges, in violation of the E.C.L., resulted in SCDHS's allegation that Serv-All's unpermitted discharges resulted in ground-water contamination (Appendix 1.1-20). As a result of a 1982-1983 ground-water study initiated by the SCDHS Bureau of Water Resources to investigate the nearby Hubbard Landfill, located less than 400 ft west of the Serv-All Laundry site, vinyl chloride contamination was detected along with

tetrachloroethylene, trichloroethylene, and cis-dichloroethylene. The November 1983 report of this investigation indicates that the Serv-All Laundry site is the most probable source of the ground-water contaminant plume (Appendix 1.1-21). Serv-All has denied access to the SCDHS to install monitoring wells on the Serv-All property (Appendix 1.1-22). In December 1983, a new Order on Consent was drawn up, outlining procedures for cleanup activities at the Serv-All site, which included submission of a report on removal of vinyl chloride and organic solvents by a licensed engineer, a plan for the disposal/treatment of contaminated ground water (subject to SCDHS approval), and final approval by the SCDHS on the location and placement of recovery and monitoring wells (Appendix 1.1-23).

In April 1984, Serv-All removed its washing machine from the premises leaving sanitary wastes from toilet facilities as the sole waste flow from the building. Serv-All withdrew its SPDES application, sealed over a drain in the garage floor (linked to traces of tetrachloroethylene in a front cesspool), and suspended all onsite preventive truck maintenance. Prior to November 1984, the remaining industrial waste pools at the rear (south) of the building were pumped out, the sludge removed, and the pools then backfilled with sand/gravel/concrete before paving with asphalt for a parking lot (Appendixes 1.1-24 and 1.1-25).

4.2 SITE TOPOGRAPHY

Serv-All Laundry is located at an elevation of approximately 65 ft above MSL on Drayton Avenue between Stein and Fifth Avenues in the Town of Islip, Suffolk County, New York. The 20,000 ft² property is located in a suburban and

commercially developed area topographically flat with a gentle 1/2 to 1 percent downward slope toward the southeast (EA Site Inspection, 22 January 1986 and Figure 1-2).

The property contains a two-story commercial building of 9,430 ft² which is divided into a garage area, a dry-cleaning/washing section, and an older section used for customer pick-ups, folding, packaging, and office/clerical use (Figure 1-2).

The south part of the property (rear parking lot) had contained nine cesspools which had previously received wastewater but which have now been pumped out, backfilled, and paved over. The north part of the property is asphalt-paved and contains two catch basins and a sanitary tank/pool which receive sanitary waste from the building's toilet facilities. The east and west portions of the property are alley/driveways. The west side was used for storage of some empty 55-gal drums (EA Site Inspection, 22 January 1986).

The properties immediately adjacent, east and west, are commercial as are the north properties directly across Drayton Avenue. To the south of Serv-All's rear parking lot is a chain link fence separating it from the back yard of a private residence. East of Serv-All are more private residences separated from the side by the aforementioned commercial properties. West of Serv-All and across Fifth Avenue is the Hubbard-Wilson Landfill (New York I.D. No. 152008) (Figure 1-2).

The closest surface water downgradient of the Serv-All property is Penataquit Creek (approximately 3/4 mi southeast). However, there is no viable route for runoff from the site to this creek because of highways which cross the route, and surface water in the area is collected in numerous recharge basins for recharge to the ground water. The homes in the immediate vicinity of the Serv-All Laundry site are all served by public water. SCDHS indicates that all homes located within the contaminated ground-water plume are served by public water (Appendix 1.1-21, p. 9 of 10). Five homes with private wells were identified downgradient of the front of the plume, however, SCDHS analyses indicated that the water is safe to drink.

4.3 SITE HYDROGEOLOGY

The site is directly underlain by Pleistocene Age glacial outwash deposits. This deposit is then in turn underlain by Cretaceous Age Matawan Group-Magothy Formation (undifferentiated), the Clay Member and Lloyd Sand Member of the Raritan Formation and finally by Precambrian Age gneiss and schist bedrock (Appendix 1.3-1). The Pleistocene deposits are estimated to be 115 ft in thickness (ground surface elevation and Appendix 1.3-1) and largely comprised of stratified sand and gravel. Additionally, it appears that a portion of the area within 3 mi of the site is underlain by the Gardiners Clay (Appendix 1.3-2). Numerous monitoring wells have been installed in the vicinity by the SCDHS, however, none are located on the Serv-All site. These wells are reportedly completed in the sand and gravel overlying the Gardiners Clay. At the SCWA well field located on Thomas Avenue (approximately 5,500 ft southeast of the site), the Gardiners Clay unit was encountered 85 ft below grade (Appendix 1.1-21). In the vicinity of the site the Matawan Group-Magothy

Formation (undifferentiated) is estimated to be 825 ft in thickness (Appendixes 1.3-1 and 1.3-3). The upper surface of this deposit is irregular because of considerable erosion during the Tertiary and Pleistocene times. Therefore, accurate prediction of formation thickness between control points (boreholes) is difficult. The most detailed description of this formation is provided by Soren (Appendix 1.3-4) and is as follows, generally composed of "beds and lenses of light-gray fine to coarse sand and silt, intercalated with thin to thick beds and lenses of light- to dark-gray clay, silt, and clayey/silty sand." Thin beds of lignite are commonly found in the clay and silt beds, while disseminated lignite and pyrite are common in the sand beds. Gravelly coarse sand is commonly present in the basal portion of the Magothy Formation, along with abundant interstitial clay and silt and lenses of clay, silt, and clayey/silty sand. The clay and silt beds are often apparently discontinuous lenses and not possible to correlate over significant distances as indicated on the geologic logs (Appendix 1.3-5) for three nearby deep water supply wells: Well S-18566T (653-ft total borehole depth) located approximately 0.5 mi east of the site; Well S-67074 (830-ft total borehole depth) located about 1 mi northwest of the site, and Well S-59347 (515-ft total borehole depth) located about 1.8 mi west southwest of the site. It appears that Wells S-18566 and S-59347 may have penetrated the Gardiners Clay at a depth of approximately 110 ft below grade.

Based upon Jensen and Soren (Appendix 1.3-3), it is estimated that in the vicinity of the site the Clay Member of the Raritan Formation is 200 ft in thickness, and the Lloyd Sand Member is estimated to be 400 ft in thickness. The most detailed stratigraphy information is provided by Soren (Appendix 1.3-4) and summarized in the following sentences. The Raritan Clay Member

consists mostly of beds/lenses of light- to dark-gray clay, silt, and clayey/silty fine sand and occasional thin to thick sandy lenses of limited lateral extent. Thin beds and disseminated particles of lignite and pyrite are common in the clay portion of this unit. The Lloyd Sand Member of the Raritan Formation "consists mostly of beds and lenses of light- to medium-gray sand and gravelly sand, commonly containing small to large amounts of interstitial clay and silt, that are intercalated with beds and lenses of light- to dark-gray clay, silt, and clayey/silty sand."

Water pumped from aquifers underlying Suffolk County is the sole source of water for public supply, agriculture, and industry (Appendix 1.3-3). The upper glacial and Magothy aquifers act as a single hydrological unit and are the only aquifers reportedly developed by wells for water supply within 3 mi of the site. Therefore, both the upper glacial and Magothy aquifers are designated as the aquifer of concern. The Lloyd Aquifer, though moderately permeable (165 gpd/ft² estimated horizontal permeability at Brookhaven National Laboratory about 20 mi east of the site), has not been developed for water supply because more permeable aquifers are present at shallower depths, and water from the Lloyd commonly has undesirably high concentrations of iron. Additionally, the Lloyd Aquifer is overlain by the extensive, thick, low permeability (confining) Raritan Clay (Appendix 1.3-4). Therefore, the Lloyd Aquifer will not be considered further by this Phase I investigation.

The aquifers of Long Island are hydraulically interconnected and although beds and discontinuous layers of silt and clay within and between aquifers serve to confine water below them, they do not completely prevent the vertical movement of water through and around them. Soren (Appendix 1.3-4) presents data which

reflect the high degree of hydraulic interconnection between the upper glacial and Magothy aquifers in the vicinity: (1) for wells completed in the upper glacial and Magothy aquifers in nearby Brentwood and Hauppauge, the head in these two aquifers decrease at a fairly uniform rate with increasing depth, and (2) water-level fluctuation in the same well groups were very similar. Soren also reports that the estimated downward velocity of water through the Magothy aquifer in the vicinity of the ground-water divide in 1968 (along which the site is located) was 0.006 ft/day (approximately 2.2 ft/year).

Recharge to the upper glacial aquifer is derived entirely from precipitation. Recharge to the Magothy and Lloyd aquifers is derived entirely from the downward movement of water from each overlying aquifer (Appendix 1.3-1). In general, recharge to the lower aquifers occurs near the center of Long Island and discharge occurs along the edge of Long Island to the ocean and Long Island Sound. The average annual precipitation in the area is 46 inches, of which 24 inches is estimated to infiltrate to the water table (Appendix 1.3-1). The remainder of the precipitation is returned to the atmosphere by evaporation and transpiration, except for a small amount of runoff to streams.

The upper glacial aquifer is the most permeable aquifer on Long Island with an estimated horizontal permeability of 1,000-1,500 gpd/ft² (Appendix 1.3-4). In 1968, it was estimated in the region that water in the upper glacial aquifer was moving horizontally at rates less than 0.5 ft/day in areas distant from centers of pumping and to hundreds of ft/day near the screens of pumping wells (Appendix 1.3-4). The permeability of the underlying Magothy Aquifer ranges widely depending upon the presence and amount of clay and silt. In 1968, it

was estimated in the region that water in the Magothy Aquifer was moving horizontally at rates less than 0.2 ft/day in areas distance from pumping, and to hundreds of ft/day near screens of pumping wells.

Based upon the March 1985 ground-water table contour map (SCDHS) the depth to ground water is estimated to be approximately 25 ft below ground surface, and the regional ground-water natural (unaffected by pumping) flow direction appears to be toward the southeast. Within 3 mi of the site, the upper glacial and Magothy aquifer of concern has been developed by 13 Suffolk County Water Authority well fields, two Brentwood Water District well fields, and the St. Josephs Convent University well. Appendix 1.3-7 provides a list of the municipal wells located within 3 mi of the site. The developed area within 3 mi of the site appears to be served by two public water systems (Suffolk County Water Authority and the Brentwood Water District) and the St. Joseph's Convent University well.

4.4 SITE CONTAMINATION

Waste Types and Quantities

Serv-All Uniform Rental, Inc., in operation for laundering services since 1969 and as a launder/dry cleaner since 1972, has utilized dry cleaning solvents (tetrachloroethylene and detergents). Analytical data from SCDHS samples of the sniffer condensate showed tetrachloroethylene present at levels of 620 ppb and 262,000 ppb (Appendix 1.1-8). In the past, waste solvent sludge

had been stored outside in leaking/overflowing 55-gal drums. Also, in the past, washwater and tetrachloroethylene-contaminated condensate water from the sniffer were discharged to leachpools (Appendix 1.1-2).

SCDHS sampled leachpools, cesspools, and storm drains at the Serv-All Laundry site on several occasions during 1979-1983. Analytical data from various sampling events indicated the presence of the following metals: copper (0.5-44 mg/liter), iron (0.6-1,100 mg/liter), chromium (<0.02-48 mg/liter), nickel (<0.1-132 mg/liter), zinc (1.1-36 mg/liter), lead (<0.2-20 mg/liter), cadmium (<0.02-1.8 mg/liter), silver (<0.02-0.13 mg/liter), and hexavalent chromium (0.2-0.71 mg/liter). In 1982, samples analyzed for organic parameters as well as metals revealed the presence of chloroform (110 ppb), 1,1,2-trichloroethylene (13-55 ppb), tetrachloroethylene (4-160 ppb), 1,2,4-trimethylbenzene (79-180 ppb), and 1,3,5-trimethylbenzene (53-66 ppb) (Appendix 1.1-11). Reportedly, samples collected on 28 September 1983 contained unpermitted levels of vinyl chloride and various dry-cleaning solvents (Appendix 1.1-20). In November 1982, two pools were pumped and 17 yd³ of sludge removed; in December of the same year, 1,400 gal of contaminated water and 800 gal of sludge were removed from the storm drain yielding; in January 1983, a third cesspool was cleaned and 24 drums of sludge removed (Appendix 1.1-13).

Ground Water

In August 1983, the Ground Water Resources Section of SCDHS found high levels of organic solvents and vinyl chloride in a monitoring well at North Bay Shore Road. Contamination within the plume was 55-85 ft below the water table;

throughout the plume it is believed to extend from 70 to 90 ft below the water table (Appendix 1.1-21). SCDHS monitoring wells located downgradient, southeast of the Serv-All property, contained levels of tetrachloroethylene and vinyl chloride well in excess of New York State's Drinking Water Guideline (50 ppb and 5 ppb, respectively). Tetrachloroethylene levels in monitoring wells southeast of Serv-All were as high as 19,000 ppb and vinyl chloride, 1,300 ppb. No vinyl chloride was found in four wells installed by the SCDHS upgradient (north) of Serv-All. Relatively small amounts of trichloroethylene (maximum 77 ppb at 55 ft) and Cis-dichloroethylene (maximum 30 ppb at 55 ft) were detected at depths greater than 30 ft below the water table upgradient of the site, and only a trace of tetrachloroethylene was found at depth in one of the four wells (Appendixes 1.1-21 and 1.1-22).

Vinyl chloride, a carcinogen and human health hazard, can result from the biodegradation of tetrachloroethylene and trichloroethylene, common degreasing and cleaning compounds. No users of vinyl chloride were identified in the limited area of the SCDHS survey and, though several industries in the area are presently using tetrachloroethylene and trichloroethylene, Serv-All is the only one identified by the SCDHS investigation with a history of discharging tetrachloroethylene into its leaching pools (Appendix 1.1-2 and 1.1-21). Serv-All has denied the SCDHS permission to install monitoring wells on the Serv-All property (Appendix 1.1-21); therefore, the ground-water contamination plume has not yet been directly linked to the Serv-All site and these data cannot be used to confirm a release of contaminants from the site to the ground water.

In June 1986, the classification of the Serv-All site was changed from 2a to 2.

Surface Water

No data available.

Soil

No data available.

Air

During the EA site inspection on 22 January 1986, total volatiles were measured using a photoionization detector (HNU). The indoor readings (sorting area, garage, and dry cleaning areas) were between 10 and 160 units. No readings above background were detected around the outside of the Serv-All building except on the west side in the vicinity of ventilation exhaust where there were intermittent readings between ambient (0.8 units) and up to 50 units depending on the direction of the wind.

SERV-ALL LAUNDRY
TOWN OF ISLIP, SUFFOLK COUNTY

The Serv-All Laundry site is a laundry/dry-cleaning business located approximately 1 mi east of the Sagtikos State Parkway on Drayton Avenue between Fifth Avenue and Stein Drive in the Town of Islip, Suffolk County, New York.

Mr. Ralph Colantuoni owns and operates the 20,000 ft² property. Serv-All Uniform Rental, Inc. has been at the site since 1969 and has operated as both laundry/dry-cleaner since 1972.

Since approximately the early 1970s, Serv-All has been disposing of unknown quantities of washwater overflow without a SPDES permit. According to onsite sampling of leachpools, cesspools, and storm drains conducted by the Suffolk County Department of Health Services (SCDHS) between 1978 and 1983, washwater and sludge were contaminated with tetrachloroethylene, heavy metals, and vinyl chloride. Serv-All removed contaminated water and sludge from its leachpools and backfilled and paved over the area in 1982-1983. However, in 1983, the SCDHS Bureau of Water Resources located a vinyl chloride contaminated groundwater plume emanating southeast of the Serv-All Laundry site. A SCWA well field located approximately 1/3 mi downgradient of the plume may be threatened. The aquifer of concern is the sole source of drinking water which serves 626,015 people. Serv-All, with a history of unlicensed discharge, is a probable source of the contamination, however, further well monitoring and studies are necessary before contamination can be linked conclusively to the Serv-All Laundry site.

Site Coordinates:
 Latitude: 40° 45' 16"
 Longitude: 73° 15' 43"

SERV-ALL LAUNDRY

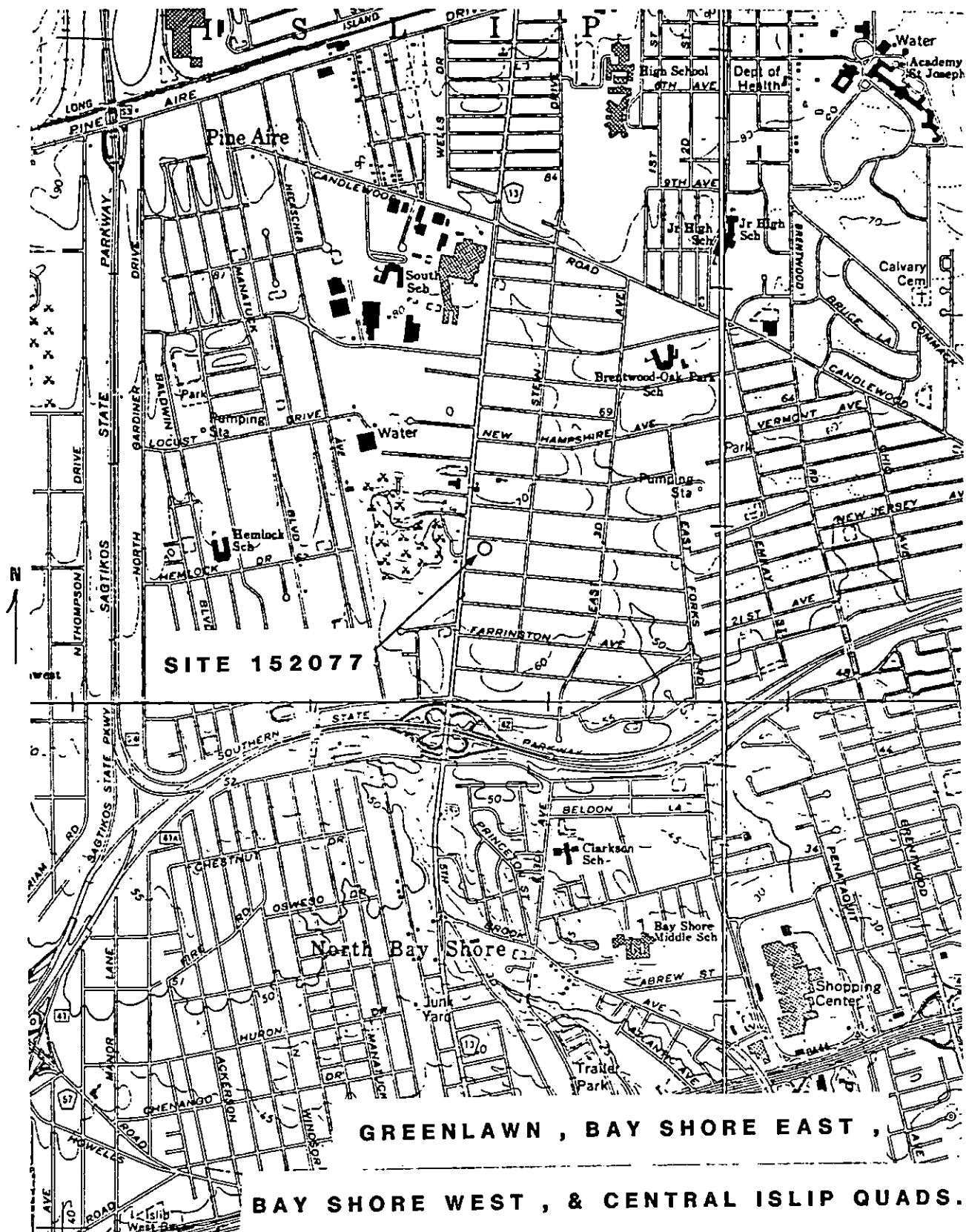


Figure 1-1.

Scale 1:24,000

Facility name: <u>Serv-All Laundry</u>	
Location: <u>Town of Islip, Suffolk County</u>	
EPA Region: <u>II</u>	
Person(s) in charge of the facility: <u>Ralph Colantuoni, Owner/Operator</u>	
<u>Serv-All Uniform Rental, Inc.</u>	
<u>8 Drayton Avenue, Bayshore, New York 11706</u>	
Name of Reviewer: <u>EA Science and Technology</u>	Date: <u>October 1986</u>
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.)	
<u>The site is a commercial laundry/dry-cleaning facility located at</u> <u>8 Drayton Avenue which for a number of years, discharged washwater</u> <u>and sniffer condensate to leachpools without a valid SPDES permit.</u> <u>Between 1979 and 1983, site samples demonstrated high levels of heavy</u> <u>metals, tetrachloroethylene, vinyl chloride, and other organics.</u> <u>Serv-All Laundry has been identified as the probable source of a</u> <u>vinyl chloride plume which is moving southeast of the site. SCDHS has</u>	
Scores: $S_M = 37.93$ ($S_{gw} = 55.62$ $S_{sw} = 0$ $S_a = 0$) $S_{FE} = N/A$ $S_{DC} = 0$ Maximum $S_M = 37.93$	

FIGURE 1
HRS COVER SHEET

*been denied access to the site for purposes of installing onsite monitoring wells, thus the contamination cannot be conclusively shown to be emanating from the site.

Ground Water Route Work Sheet:							Maximum Possible
Rating Factor	Assigned Value (Circle One)	Multi-plier	Score	Max Score	Ref. (Section)		
1 Observed Release	0 45	1	0	45	3.1	45	
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	18	18			
Hazardous Waste Quantity	0 1 2 3 4 5 6 7 8	1	1	8			
Total Waste Characteristics Score			19	26		19	
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	35	40			
Total Targets Score			44	49		44	
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			37,620	57,330		37,620	
7 Divide line 6 by 57,330 and multiply by 100			$S_{gw} =$	65.62		65.62	

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	4	6		
Physical State	0 1 2 3	1	3	3		
Total Route Characteristics Score			9	15		
3 Containment	0 1 2 3	1	0	3	4.3	
4 Waste Characteristics					4.4	
Toxicity/Persistence	0 3 6 9 12 15 18	1	0	18		
Hazardous Waste Quantity	0 1 2 3 4 5 6 7 8	1	0	8		
Total Waste Characteristics Score			0	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			0	64,350		
7 Divide line 6 by 64,350 and multiply by 100			S _{sw} = 0			

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		3		
Toxicity	0 1 2 3	3		9		
Hazardous Waste Quantity	0 1 2 3 4 5 6 7 8	1		8		
Total Waste Characteristics Score				20		
3 Targets					5.3	
Population Within 4-Mile Radius	0 9 12 15 18 21 24 27 30	1		30		
Distance to Sensitive Environment	0 1 2 3	2		6		
Land Use	0 1 2 3	1		3		
Total Targets Score				39		
4 Multiply 1 x 2 x 3				35,100		
5 Divide line 4 by 35,100 and multiply by 100 $S_a = 0$						

FIGURE 9
AIR ROUTE WORK SHEET

	S	S ²
Groundwater Route Score (S _{gw})	65.62	4,305.98
Surface Water Route Score (S _{sw})	0	0
Air Route Score (S _a)	0	0
$S_{gw}^2 + S_{sw}^2 + S_a^2$		4,305.98
$\sqrt{S_{gw}^2 + S_{sw}^2 + S_a^2}$		65.62
$\sqrt{S_{gw}^2 + S_{sw}^2 + S_a^2} / 1.73 = S_M =$		37.93

FIGURE 10
WORKSHEET FOR COMPUTING S_M

Maximum S_M = 37.93

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						SFE = N/A			

**FIGURE 11
FIRE AND EXPLOSION WORK SHEET**

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	0	3	8.2	
3 Containment	0 15	1	0	15	8.3	
4 Waste Characteristics Toxicity	0 1 2 3	5	0	15	8.4	
5 Targets					8.5	
Population Within a 1-Mile Radius	0 1 2 3 4 5	4	20	20		
Distance to a Critical Habitat	0 1 2 3	4	0	12		
Total Targets Score			20	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			0	21,600		
7 Divide line 6 by 21,600 and multiply by 100			SDC = 0			

FIGURE 12
DIRECT CONTACT WORK SHEET

**DOCUMENTATION RECORDS
FOR
HAZARD RANKING SYSTEM**

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

FACILITY NAME: Serv-All Laundry

LOCATION: Town of Islip, Suffolk County

DATE SCORED: October 1986

PERSON SCORING: EA Science and Technology

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

Suffolk County Department of Health Services

FACTORS NOT SCORED DUE TO INSUFFICIENT INFORMATION:

Observed release to ground water

Observed release to air

COMMENTS OR QUALIFICATIONS:

Serv-All Laundry has been identified as the probable source of ground-water contamination southeast of the site. SCDHS has been denied access to the site for purposes of installing onsite monitoring wells, thus the site cannot be shown conclusively to be the source of the contaminants.

GROUND WATER ROUTE

1 OBSERVED RELEASE

Contaminants detected (5 maximum):

Vinyl chloride, tetrachloroethylene, trichloroethylene, and cis-dichloroethylene have been detected in SCDHS ground-water monitoring wells within 250 ft southeast of the site.

Reference: 1.

Rationale for attributing the contaminants to the facility:

Analytical data from SCDHS monitoring wells located immediately upgradient of the site showed no vinyl chloride or tetrachloroethylene. Small amounts of trichloroethylene and cis-dichloroethylene were detected at depths greater than 30 ft below the water table and believed to be attributable to industries located far upgradient. The SCDHS investigation indicates that the Serv-All Laundry site is the most probable source of the contaminants. Serv-All has denied access to SCDHS to install monitoring wells on Serv-All property, therefore, the contaminants cannot be directly attributable to the Serv-All Laundry site.

Assigned value = 0.

References: 1, 2, and 3.

2 ROUTE CHARACTERISTICS

Depth to Aquifer of Concern

Name/description of aquifer(s) of concern:

The Pleistocene Age Upper Glacial deposits and the Cretaceous Age Matawan Group Magothy Formation.

References: 4, 5, and 6.

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

25 ft.

References: 7 and 8.

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

Depth of leachpools is assumed to be 6 ft.

Depth to aquifer of concern is estimated to be 19 ft.

Assigned value = 3.

Reference: 3.

Net Precipitation

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

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

Net precipitation (subtract the above figures):

24 in.

Assigned value = 3.

References: 3 and 4.

Permeability of Unsaturated Zone

Soil type in unsaturated zone:

Sand and gravel.

Reference: 7.

Permeability associated with soil type:

$>10^{-3}$ cm/sec.

Assigned value = 3.

References: 3 and 4.

Physical State

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

Liquid: washwater from cleaning operations and sniffer condensate.

Assigned value = 3.

References: 3, 9, and 10.

3 CONTAINMENT

Containment

Method(s) of waste or leachate containment evaluated:

Leaching pools: wastewater overflow/discharge.

Reference: 10.

Method with highest score:

No containment.

Assigned value = 3.

Reference: 3.

4 WASTE CHARACTERISTICS

Toxicity and Persistence

Compound(s) evaluated:

Tetrachloroethylene, lead, trichloroethylene, trimethylbenzene, silver, cadmium, copper, hexavalent chromium, iron, nickel, lead, xylene, diethylbenzene, chloroform, trichloroethane, and vinyl chloride.

References: 2, 9, and 11-14.

Compound with highest score:

Chloroform, hexavalent chromium, cadmium, copper, iron, and lead all = 18.

References: 3 and 15.

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):

Unknown.

Basis of estimating and/or computing waste quantity:

Minimum quantity assumed.

Assigned value = 1.

Reference: 3.

5 TARGETS

Ground Water Use

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

Drinking water; no alternate supply available.

Assigned value = 3.

References: 3 and 16-20.

Distance to Nearest Well

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

SCWA E. Forks Road Well Field.

Reference: 16.

Distance to above well or building:

3,000 ft.

Assigned value = 3.

References: 3 and 16.

Population Served by Ground Water 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:

Community supplies:	<u>Population</u>
Suffolk County Water Authority	
Bayshore Water District	181,754
Babylon Water District	207,689
Patchogue Water District	209,395
St. Joseph's Convent	
Long Island University	1,177
Brentwood Water District	<u>26,000</u>
	626,015

The number of private wells within a 3-mi radius is unknown. Appendix 1.3-7 provides a list of well fields and wells.

References: 17, 18, 20, and 21.

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):

Approximately 77 acres of land are used for agricultural purposes within a 3-mi radius of the site. However, irrigation wells on agricultural land in Suffolk County are not registered by any regulatory agency, so there are no lists or descriptions of these wells.

References: 22, 23, 24, and 25.

Total population served by ground water within a 3-mile radius:

626,015.

Assigned value = 5. Combined assigned value = 35.

Reference: 3.

SURFACE WATER ROUTE

1 OBSERVED RELEASE

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

No data available. (Chapter 3.)

Assigned value = 0.

Reference: 3.

Rationale for attributing the contaminants to the facility:

2 ROUTE CHARACTERISTICS

Facility Slope and Intervening Terrain

Average slope of facility in percent:

Wastewater was discharged to below-grade leaching pools. Runoff to adjacent property from overflowing leach pools has been observed by SCDHS inspectors. Average slope = 0.5 percent. Estimated with a Suunto clinometer.

References: 3, 9, 26, and 27.

Name/description of nearest downslope surface water:

Penataquit Creek runs southeast of site to Atlantic Ocean.

Reference: 8.

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

Average slope: <0.01 percent.

Reference: 8.

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

No.

References: 15 and 27.

Is the facility completely surrounded by areas of higher elevation?

No.

References: 15 and 27.

Assigned value = 0.

Reference: 3.

1-Year, 24-Hour Rainfall in Inches

2.5 in.

Assigned value = 2.

Reference: 3.

Distance to Nearest Downslope Surface Water

Approximately 4,000 ft.

Assigned value = 2.

References: 3 and 8.

Physical State of Waste

Liquid: washwater from cleaning operations, sniffer condensate.

Assigned value = 3.

References: 3, 9, and 10.

3 CONTAINMENT

Containment

Method(s) of waste or leachate containment evaluated:

Wastes were discharged to below ground leaching pools. In the event of leaching pool overflow, it is not anticipated that runoff from the site would reach the nearest downgradient surface water, Penataquit Creek. Terrain between the site and Penataquit Creek is transected by roads and highways which act as barriers to surface runoff from the site.

References: 8 and 27.

Method with highest score:

Intervening terrain precludes runoff from entering surface water.

Assigned value = 0.

Reference: 3.

4 WASTE CHARACTERISTICS

Containment score = 0; thus, waste characteristics are not evaluated.

Toxicity and Persistence

Compound(s) evaluated

Compound with highest score:

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):

Basis of estimating and/or computing waste quantity:

5 TARGETS

Surface Water Use

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

There is no known use of Penataquit Creek north of Montauk Highway (drinking, irrigation, or recreation). South of Montauk Highway, there are areas which are used for harboring boats and some fishing is done off these bulkheads.

Reference: 28.

Assigned value = 2.

Reference: 3.

Is there tidal influence?

Yes.

Reference: 28.

Distance to a Sensitive Environment

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

None.

Reference: 8.

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

None.

Reference: 8.

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

None.

Reference: 29.

Assigned value = 0.

Reference: 3.

Population Served by Surface Water

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

None.

Reference: 17.

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

None. The major source of irrigation water in Suffolk County is ground water from wells. Generally, surface water is not utilized for this purpose.

References: 22, 23, 24, and 25.

Total population served:

Zero.

References: 17, 22, 23, 24, and 25.

Assigned value = 0.

Reference: 3.

Name/description of nearest of above waterbodies:

Distance to above-cited intakes, measured in stream miles.

AIR ROUTE

During EA's site inspection on 22 January 1986, total volatiles were measured using a photoionization detector (HNU). The indoor readings (sorting area, garage, and dry-cleaning areas) were between 10 and 160 units. No readings above background were detected around the outside of the Serv-All building except on the west side in the vicinity of ventilation exhaust where there were readings between ambient (0.8 units) and up to 50 units depending on the direction of the wind (Reference: 27). No other analytical data were found in agency files examined (Chapter 3).

Assigned value = 0.

Reference: 3.

1 OBSERVED RELEASE

Contaminants detected:

Methods used to detect the contaminants:

Rationale for attributing the contaminants to the site:

2 WASTE CHARACTERISTICS

Reactivity and Incompatibility

Most reactive compound:

Most incompatible pair of compounds:

Toxicity

Most toxic compound:

Hazardous Waste Quantity

Total quantity of hazardous waste:

Basis of estimating and/or computing waste quantity:

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

Distance to a Sensitive Environment

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

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

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

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 or Historic Places and National Natural Landmarks) within the view of the site?

FIRE AND EXPLOSION

The local fire marshal has not certified that the site presents a significant fire or explosion threat (Reference: 30). There are no analytical data available in any of the agency files examined (Chapter 3).

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:

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 or Historic Places and National Natural Landmarks) within the 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 (Chapter 3).

Assigned value = 0.

Reference: 3.

2 ACCESSIBILITY

Describe type of barrier(s):

Site is fenced and gated.

Assigned value = 0.

References: 3 and 27.

3 CONTAINMENT

Type of containment, if applicable:

Serv-All has sealed drains, backfilled and paved cesspools, and corrected drum leakage since 1982/1983 (Chapter 4).

Assigned value = 15.

References: 2, 3, 27, and 31.

4 WASTE CHARACTERISTICS

Toxicity

Compounds evaluated:

Containment = 0; thus, waste characteristics are not evaluated.

Assigned value = 0.

Reference: 3.

Compound with highest score:

5 TARGETS

Population Within 1-Mile Radius

15,956. Estimated as 15 percent of Brentwood (6,649), 5 percent of Islip (776), and 25 percent of North Bay Shore

Assigned value = 5.

References: 3 and 32.

Distance to Critical Habitat (of Endangered Species)

None known.

Assigned value = 0.

References: 3 and 29.

REFERENCES

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25. Carey, S. 1986. Ground Water Section, SCDOH. Personal Communication. 7 April. (Appendix 1.5-7.)
26. Letter from S. Costa, P.E., SCDHS, to Mr. Ralph Colantuoni, President of Serv-All Uniform Rental Corp. 21 August 1979. (Appendix 1.1-6.)
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29. Ozard, J.W. 1986. Sr. Wildlife Biologist, NYSDEC Wildlife Resource Center, Significant Habitat Unit. 26 February. (Appendix 1.5-9.)
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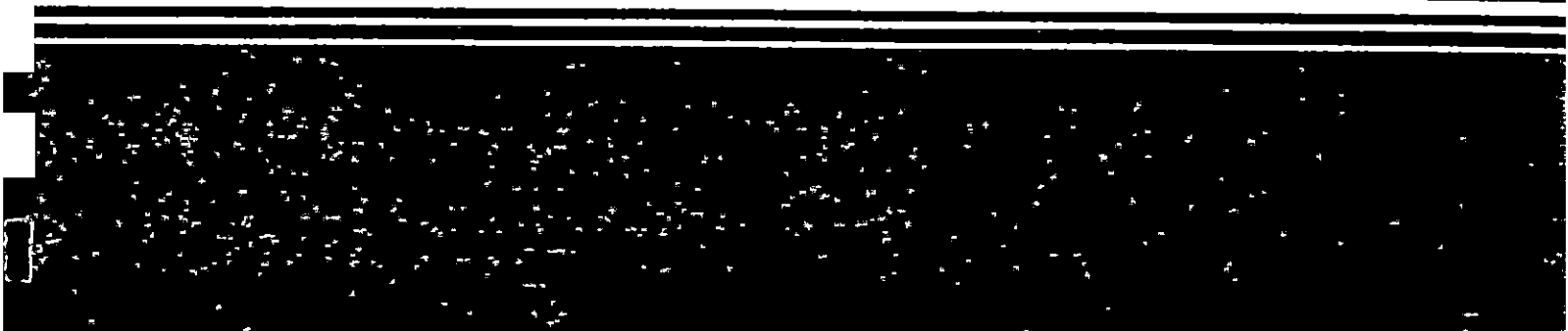
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Serv-All Laundry



Potential Hazardous Waste Site

Preliminary Assessment





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

I. IDENTIFICATION

01 STATE NY 02 SITE NUMBER New

II. SITE NAME AND LOCATION

01 SITE NAME (Legal, common, or descriptive name of site) Serv-All Laundry		02 STREET, ROUTE NO., OR SPECIFIC LOCATION IDENTIFIER 8 Drayton Avenue			
03 CITY Bay Shore	04 STATE NY	05 ZIP CODE 11706	06 COUNTY Suffolk	07 COUNTY CODE	08 CONG DIST
09 COORDINATES LATITUDE 40° 45' 16."		LONGITUDE 73° 15' 43."			
10 DIRECTIONS TO SITE (Starting from nearest public road) Facility located just south of the corner of Drayton Avenue and 5th Avenue in Bay Shore (Town of Islip), New York.					

III. RESPONSIBLE PARTIES

01 OWNER (if known) Ralph Colantuoni; Serv-all Uniform Rental		02 STREET (Business, mailing, residential) 8 Drayton Avenue			
03 CITY Bay Shore	04 STATE NY	05 ZIP CODE 11706	06 TELEPHONE NUMBER (516) 666-3550		
07 OPERATOR (if known and different from owner)		08 STREET (Business, mailing, residential)			
09 CITY	10 STATE	11 ZIP CODE	12 TELEPHONE NUMBER ()		
13 TYPE OF OWNERSHIP (Check one) ☒ A. PRIVATE ☐ B. FEDERAL: _____ (Agency name) ☐ C. STATE ☐ D. COUNTY ☐ E. MUNICIPAL ☐ F. OTHER: _____ (Specify) ☐ G. UNKNOWN					
14 OWNER/OPERATOR NOTIFICATION ON FILE (Check all that apply) ☐ A. RCRA 3001 DATE RECEIVED: ____/____/____ MONTH DAY YEAR ☐ B. UNCONTROLLED WASTE SITE (CERCLA 103 c) DATE RECEIVED: ____/____/____ MONTH DAY YEAR ☐ C. NONE					

IV. CHARACTERIZATION OF POTENTIAL HAZARD

01 ON SITE INSPECTION ☒ YES DATE 1, 22, 86 ☐ NO MONTH DAY YEAR		BY (Check all that apply) ☐ A. EPA ☐ B. EPA CONTRACTOR ☐ C. STATE ☒ D. OTHER CONTRACTOR ☐ E. LOCAL HEALTH OFFICIAL ☐ F. OTHER: _____ (Specify) CONTRACTOR NAME(S): EA Science and Technology			
02 SITE STATUS (Check one) ☒ A. ACTIVE ☐ B. INACTIVE ☐ C. UNKNOWN		03 YEARS OF OPERATION BEGINNING YEAR 1971 ENDING YEAR present ☐ UNKNOWN			

04 DESCRIPTION OF SUBSTANCES POSSIBLY PRESENT, KNOWN, OR ALLEGED
Dry cleaner for various, industrial and commercial uniforms. Discharge of wash water (containing solvents and metals) into underground cesspools.

05 DESCRIPTION OF POTENTIAL HAZARD TO ENVIRONMENT AND/OR POPULATION

Ground-water contamination found in monitoring wells downgradient of the site. Tetrachloroethylene and vinyl chloride are present in ground water downgradient of the site.

V. PRIORITY ASSESSMENT

01 PRIORITY FOR INSPECTION (Check one. If high or medium is checked, complete Part 2 - Waste Information and Part 3 - Description of Hazardous Conditions and Incidents) ☐ A. HIGH (Inspection required promptly) ☐ B. MEDIUM (Inspection required) ☐ C. LOW (Inspect on time available basis) ☐ D. NONE (No further action needed, complete current disposition form)			
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VI. INFORMATION AVAILABLE FROM

01 CONTACT Rebecca Ligotino	02 OF (Agency Organization) EA Science and Technology	03 TELEPHONE NUMBER (914) 692-6706
04 PERSON RESPONSIBLE FOR ASSESSMENT William Going	05 AGENCY EA	06 ORGANIZATION EA
	07 TELEPHONE NUMBER (914) 692-6706	08 DATE 3, 24, 86 MONTH DAY YEAR



POTENTIAL HAZARDOUS WASTE SITE
PRELIMINARY ASSESSMENT
PART 2 - WASTE INFORMATION

I. IDENTIFICATION

01 STATE 02 SITE NUMBER
NY New

II. WASTE STATES, QUANTITIES, AND CHARACTERISTICS

01 PHYSICAL STATES (Check all that apply)

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

02 WASTE QUANTITY AT SITE

(Measures of waste quantities
must be independent)

TONS _____

CUBIC YARDS _____

NO. OF DRUMS Unknown

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			
OLW	OILY WASTE			
SOL	SOLVENTS	unknown		
PSD	PESTICIDES			
OCC	OTHER ORGANIC CHEMICALS	unknown		
IOC	INORGANIC CHEMICALS			
ACD	ACIDS			
BAS	BASES			
MES	HEAVY METALS	unknown		

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
SOL	Tetrachloroethylene	127-18-4	TK (leachpool)	160	ppb
SOL	1,1,2 Trichloroethylene	79-01-6	TK	55	ppb
SOL	1,2,4 Trimethylbenzene	95-63-6	TK	79	ppb
SOL	1,3,5 Trimethylbenzene	68-67-8	TK	53	ppb
SOL	Chloroform	67-66-3	TK	110	ppb
MES	Copper	7440-50-8	TK	9.2	ppb
MES	Iron	7439-89-6	TK	60.0	ppb
MES	Nickel	7440-02-0	TK	3.5	ppb
MES	Zinc	7440-66-6	TK	20.0	ppb
MES	Lead	7439-92-1	TK	3.6	ppb
MES	Cadmium	7440-43-9	TK	0.3	ppb

V. FEEDSTOCKS (See Appendix for CAS Numbers)

CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER	CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER
FDS	Sodium hydroxide	1310-73-2	FDS	Methanol	67-56-1
FDS	Silicated alkali		FDS	Methylene chloride	75-09-2
FDS	Sodium bisulphite	7631-90-5	FDS	Perchloroethylene	127-18-4
FDS	Trichloroisocyanuric acid	87-90-1	FDS	Petroleum distillate	

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

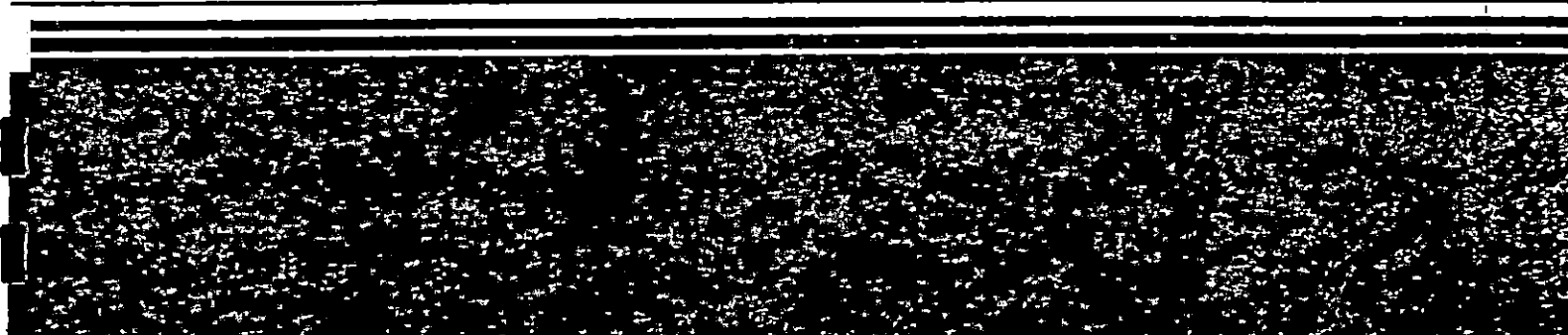
EA site inspection, 22 January 1986
Suffolk County Department of Health Services files.

Serv-All Laundry



Potential Hazardous Waste Site

Site Inspection Report





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

I. IDENTIFICATION

01 STATE NY 02 SITE NUMBER D068026657

II. SITE NAME AND LOCATION

01 SITE NAME (Legal, common, or descriptive name of site) Serv-All Laundry		02 STREET, ROUTE NO., OR SPECIFIC LOCATION IDENTIFIER 8 Drayton Avenue			
03 CITY Islip		04 STATE NY	05 ZIP CODE 11706	06 COUNTY Suffolk	07 COUNTY CODE 08 CONG DIST
09 COORDINATES LATITUDE 40° 45' 16" LONGITUDE 73° 15' 43"		10 TYPE OF OWNERSHIP (Check one) ☒ A. PRIVATE ☐ B. FEDERAL ☐ C. STATE ☐ D. COUNTY ☐ E. MUNICIPAL ☐ F. OTHER ☐ G. UNKNOWN			

III. INSPECTION INFORMATION

01 DATE OF INSPECTION 01/22/86 MONTH DAY YEAR		02 SITE STATUS ☐ ACTIVE ☒ INACTIVE		03 YEARS OF OPERATION 1969 present UNKNOWN BEGINNING YEAR ENDING YEAR	
04 AGENCY PERFORMING INSPECTION (Check all that apply) ☐ A. EPA ☐ B. EPA CONTRACTOR ☐ C. MUNICIPAL ☐ D. MUNICIPAL CONTRACTOR ☐ E. STATE ☒ F. STATE CONTRACTOR EA Science and Tech ☐ G. OTHER					
05 CHIEF INSPECTOR James Shultz		06 TITLE Senior Geologist		07 ORGANIZATION EA	08 TELEPHONE NO. (914) 692-6706
09 OTHER INSPECTORS Rebecca Ligotino		10 TITLE Environmental Scientist		11 ORGANIZATION EA	12 TELEPHONE NO. (914) 692-6706
Isidore Doroski		Public Health Sanitarian		SCDHS	(616) 451-4633
					()
					()
13 SITE REPRESENTATIVES INTERVIEWED Ralph Colantuoni		14 TITLE owner/operator		15 ADDRESS Serv-All Uniform Rental, Inc. 8 Drayton Avenue Bayshore, New York, 11706	
Donald Hand				144 Medford Avenue Patchogue, New York 11772 (516) 475-0349	
Vincent Hand		Attorney		260 West Main Street Bayshore, New York 11706 (516) 666-4600	
				()	
				()	
17 ACCESS GAINED BY (Check one) ☒ PERMISSION ☐ WARRANT		18 TIME OF INSPECTION 0930		19 WEATHER CONDITIONS clear, 40 degrees (approx.), no snow cover	
IV. INFORMATION AVAILABLE FROM					
01 CONTACT Rebecca Ligotino		02 OF (Agency/Organization) EA Science and Technology			03 TELEPHONE NO. (914) 692-6706
04 PERSON RESPONSIBLE FOR SITE INSPECTION FORM		05 AGENCY	06 ORGANIZATION	07 TELEPHONE NO.	08 DATE 01/22/86 MONTH DAY YEAR



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

I. IDENTIFICATION

Q1 STATE NY Q2 SITE NUMBER D068026657

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
(Measure of waste quantities must be independent)

TONS _____
CUBIC YARDS _____
NO. OF DRUMS unknown

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			
OLW	OILY WASTE			
SOL	SOLVENTS	unknown		SCDHS has sampled liquid and sludge from leaching pools and analytical data indicates contamination with tetrachloroethylene, heavy metals, and vinyl chloride.
PSD	PESTICIDES			
OCC	OTHER ORGANIC CHEMICALS			
IOC	INORGANIC CHEMICALS			
ACD	ACIDS			
BAS	BASES			
MES	HEAVY METALS	unknown		

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
SOL	tetrachloroethylene	127-18-4	SI	262,000	ppb
OCC	vinyl chloride	75-01-4	SI	unknown	
MES	copper	7440-50-8	SI	44	mg/L
MES	iron	7439-89-6	SI	1,100	mg/L
MES	hexavalent chromium	7440-47-3	SI	0.71	mg/L
MES	lead	7439-92-1	SI	20	mg/L
MES	cadmium	7440-43-9	SI	1.8	mg/L
MES	zinc	7440-66-6	SI	36	mg/L
MES	silver	7440-22-4	SI	0.13	mg/L
OCC	1,1,2-trichloroethylene	79-01-6	SI	55	ppb
OCC	1,2,4-trimethylbenzene	95-63-6	SI	180	ppb
OCC	1,3,5-trimethylbenzene	108-67-8	SI	66	ppb
OCC	chloroform	67-66-5	SI	110	ppb

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)

Appendixes 1.1-2, 1.1-5, 1.1-8, 1.1-10, 1.1-11, 1.1-15, and 1.1-20.



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

I. IDENTIFICATION

01 STATE 02 SITE NUMBER
NY D068026657

II. HAZARDOUS CONDITIONS AND INCIDENTS

01 ☒ A. GROUNDWATER CONTAMINATION 02 ☐ OBSERVED (DATE: _____) ☒ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 626,015 04 NARRATIVE DESCRIPTION
Groundwater in the aquifer of concern is the source for 13 SCWA well fields, 12 Brentwood Water District well fields, the St. Josephs Convent University well, and an undetermined number of private residences.

01 ☐ B. SURFACE WATER CONTAMINATION 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____ 04 NARRATIVE DESCRIPTION
No viable overland route to surface water.

01 ☐ C. CONTAMINATION OF AIR 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____ 04 NARRATIVE DESCRIPTION
No readings above background were recording during EA's site inspection except in the vicinity of the ventilation exhaust, where intermittent readings between ambient (0.8 units) up to 50 units were recorded depending on wind direction.

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

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

01 ☐ F. CONTAMINATION OF SOIL 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
03 AREA POTENTIALLY AFFECTED: _____ 04 NARRATIVE DESCRIPTION
(Acres)
None known.

01 ☒ G. DRINKING WATER CONTAMINATION 02 ☐ OBSERVED (DATE: _____) ☒ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 626,015 04 NARRATIVE DESCRIPTION
Limited to population served by ground water.

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

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



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

I. IDENTIFICATION

01 STATE NY 02 SITE NUMBER D068026675

II. HAZARDOUS CONDITIONS AND INCIDENTS (Continued)

01 ☐ J. DAMAGE TO FLORA
04 NARRATIVE DESCRIPTION

02 ☐ OBSERVED (DATE: _____)

☐ POTENTIAL

☐ ALLEGED

None known.

01 ☐ K. DAMAGE TO FAUNA
04 NARRATIVE DESCRIPTION (include name(s) of species)

02 ☐ OBSERVED (DATE: _____)

☐ POTENTIAL

☐ ALLEGED

None known.

01 ☐ L. CONTAMINATION OF FOOD CHAIN
04 NARRATIVE DESCRIPTION

02 ☐ OBSERVED (DATE: _____)

☐ POTENTIAL

☐ ALLEGED

None known.

01 ☒ M. UNSTABLE CONTAINMENT OF WASTES

(Spills, Runoff, Standing liquids, Leaking drums)

02 ☒ OBSERVED (DATE: 1979-1983)

☐ POTENTIAL

☐ ALLEGED

03 POPULATION POTENTIALLY AFFECTED: _____

04 NARRATIVE DESCRIPTION

Heavy metals, tetrachloroethylene, and vinyl chloride contained in leaching pools samples collected by SCDHS personnel.

01 ☐ N. DAMAGE TO OFFSITE PROPERTY
04 NARRATIVE DESCRIPTION

02 ☐ OBSERVED (DATE: _____)

☐ POTENTIAL

☐ ALLEGED

None known.

01 ☐ O. CONTAMINATION OF SEWERS, STORM DRAINS, WWTPs
04 NARRATIVE DESCRIPTION

02 ☐ OBSERVED (DATE: _____)

☐ POTENTIAL

☐ ALLEGED

No potential.

01 ☒ P. ILLEGAL/UNAUTHORIZED DUMPING

02 ☒ OBSERVED (DATE: 1979-1983)

☐ POTENTIAL

☐ ALLEGED

04 NARRATIVE DESCRIPTION

Serv-All had been discharging washwater containing heavy metals and dry-cleaning solvents without a valid SPDES permit for approximately 10 years.

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

III. TOTAL POPULATION POTENTIALLY AFFECTED: 626,015

IV. COMMENTS

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

EA Site Inspection, 22 January 1986,
Appendixes 1.1-2, 1.1-5, 1.1-8, 1.1-10, 1.1-15, 1.1-20, 1.5-2, 1.5-3, 1.5-4, 1.5-6,
1.5-7, and 1.5-10.



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

I. IDENTIFICATION
01 STATE NY 02 SITE NUMBER D068026657

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	04 TREATMENT (Check all that apply)	05 OTHER
☐ A. SURFACE IMPOUNDMENT			☐ A. INCINERATION	☒ A. BUILDINGS ON SITE
☐ B. PILES			☐ B. UNDERGROUND INJECTION	
☒ C. DRUMS, ABOVE GROUND	unknown		☐ C. CHEMICAL/PHYSICAL	
☐ D. TANK, ABOVE GROUND			☐ D. BIOLOGICAL	
☒ E. TANK, BELOW GROUND	unknown		☐ E. WASTE OIL PROCESSING	
☐ F. LANDFILL			☐ F. SOLVENT RECOVERY	
☐ G. LANDFARM			☐ G. OTHER RECYCLING/RECOVERY	
☐ H. OPEN DUMP			☐ H. OTHER (Specify)	
☐ I. OTHER (Specify)				06 AREA OF SITE approx. 0.46 (Acres)

07 COMMENTS

The site is a laundry/dry-cleaner. For several years prior to 1983, washwater and sniffer condensate was discharged to leachpools without a valid SPDES permit. Analytical data from site sampling by SCDHS indicates contamination of storm drains and leachpools with heavy metals, tetrachloroethylene, vinyl chloride, and other dry-cleaning solvents.

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. Drums had been stored in the alley way to the site of the building (now stored indoors with 3 in. concrete curbing to prevent runoff). Sniffer condensate water and washwater had been discharged to leaching pools prior to 1983.

V. ACCESSIBILITY

01 WASTE EASILY ACCESSIBLE. ☐ YES ☒ NO
02 COMMENTS Site is fenced and gated. Drains have been sealed and leachpools have been cleaned out, filled in, and paved over.

VI. SOURCES OF INFORMATION (Cite specific references, e.g., State Ins. Sample Analysis, Reports)

EA Site Inspection, 22 January 1986.
Appendixes 1.1-2, 1.1-13, and 1.1-22.



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

I. IDENTIFICATION

01 STATE 02 SITE NUMBER
NY D068026657

II. DRINKING WATER SUPPLY

01 TYPE OF DRINKING SUPPLY (Check as applicable)	02 STATUS	03 DISTANCE TO SITE															
<table border="0"><tr><td>SURFACE</td><td>WELL</td></tr><tr><td>COMMUNITY A. ☐</td><td>B. ☒</td></tr><tr><td>NON-COMMUNITY C. ☐</td><td>D. ☐</td></tr></table>	SURFACE	WELL	COMMUNITY A. ☐	B. ☒	NON-COMMUNITY C. ☐	D. ☐	<table border="0"><tr><td>ENDANGERED</td><td>AFFECTED</td><td>MONITORED</td></tr><tr><td>A. ☐</td><td>B. ☐</td><td>C. ☒</td></tr><tr><td>D. ☐</td><td>E. ☐</td><td>F. ☐</td></tr></table>	ENDANGERED	AFFECTED	MONITORED	A. ☐	B. ☐	C. ☒	D. ☐	E. ☐	F. ☐	A. <u>0.57</u> (mi) B. <u>unknown</u> (mi)
SURFACE	WELL																
COMMUNITY A. ☐	B. ☒																
NON-COMMUNITY C. ☐	D. ☐																
ENDANGERED	AFFECTED	MONITORED															
A. ☐	B. ☐	C. ☒															
D. ☐	E. ☐	F. ☐															

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 <u>626,015</u>	03 DISTANCE TO NEAREST DRINKING WATER WELL <u>0.57</u> (mi)			
04 DEPTH TO GROUNDWATER <u>25</u> (ft)	05 DIRECTION OF GROUNDWATER FLOW <u>SE</u>	06 DEPTH TO AQUIFER OF CONCERN <u>approx. 19</u> (ft)	07 POTENTIAL YIELD OF AQUIFER <u>unknown</u> (gpd)	08 SOLE SOURCE AQUIFER ☒ YES ☐ NO

09 DESCRIPTION OF WELLS (including usage, depth, and location relative to population and buildings)
SCWA has 13 well fields within a 3-mi radius of the site. The wells pull water from the Upper Glacial and Magothy aquifers. Two Brentwood Water District well fields also use this source. Only 5 private wells have been identified.

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

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
<u>Penataquit Creek</u>	☐	<u>approx. 0.76</u> (mi)
_____	☐	_____ (mi)
_____	☐	_____ (mi)

V. DEMOGRAPHIC AND PROPERTY INFORMATION

01 TOTAL POPULATION WITHIN <table border="0"><tr><td>ONE (1) MILE OF SITE A. <u>15,956</u> NO. OF PERSONS</td><td>TWO (2) MILES OF SITE B. <u>55,644</u> NO. OF PERSONS</td><td>THREE (3) MILES OF SITE C. <u>115,160</u> NO. OF PERSONS</td></tr></table>	ONE (1) MILE OF SITE A. <u>15,956</u> NO. OF PERSONS	TWO (2) MILES OF SITE B. <u>55,644</u> NO. OF PERSONS	THREE (3) MILES OF SITE C. <u>115,160</u> NO. OF PERSONS	02 DISTANCE TO NEAREST POPULATION <u>approx. 0.031</u> (mi)
ONE (1) MILE OF SITE A. <u>15,956</u> NO. OF PERSONS	TWO (2) MILES OF SITE B. <u>55,644</u> NO. OF PERSONS	THREE (3) MILES OF SITE C. <u>115,160</u> NO. OF PERSONS		
03 NUMBER OF BUILDINGS WITHIN TWO (2) MILES OF SITE _____	04 DISTANCE TO NEAREST OFF-SITE BUILDING <u>approx. 0.016</u> (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)
Area is a densely populated suburban-industrial area which includes private residences and commercial establishments.



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

I. IDENTIFICATION

01 STATE NY 02 SITE NUMBER D068026657

VI. ENVIRONMENTAL INFORMATION

01 PERMEABILITY OF UNSATURATED ZONE (Check one)

☐ A. $10^{-5} - 10^{-8}$ 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

1,500 (ft)

04 DEPTH OF CONTAMINATED SOIL ZONE

unknown (ft)

05 SOIL pH

unknown

06 NET PRECIPITATION

24 (in)

07 ONE YEAR 24 HOUR RAINFALL

2.5 (in)

08 SLOPE
SITE SLOPE

0.5 %

DIRECTION OF SITE SLOPE

SE

TERRAIN AVERAGE SLOPE

less than 0.01 %

09 FLOOD POTENTIAL

SITE IS IN N/A YEAR FLOODPLAIN

10

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

11 DISTANCE TO WETLANDS (5 acre minimum)

ESTUARINE

OTHER

A. None (mi)

B. None (mi)

12 DISTANCE TO CRITICAL HABITAT (of endangered species)

(mi)

ENDANGERED SPECIES: None

13 LAND USE IN VICINITY

DISTANCE TO:

COMMERCIAL/INDUSTRIAL

RESIDENTIAL AREAS: NATIONAL/STATE PARKS,
FORESTS, OR WILDLIFE RESERVES

AGRICULTURAL LANDS
PRIME AG LAND AG LAND

A. adjacent (mi)

B. adjacent (mi)

C. approx. 0.57 (mi) D. approx. 0.57 (mi)

14 DESCRIPTION OF SITE IN RELATION TO SURROUNDING TOPOGRAPHY

The 20,000 ft² site is 65 ft above MSL. Topography is relatively flat with a gentle 1/2-1 percent slope to the southeast.

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

EA Site Inspection, 22 January 1986.

Appendixes 1.3-1, 1.3-3, 1.3-4, 1.5-4, 1.5-5, 1.5-6, 1.5-7, 1.5-8, 1.5-9, and 1.5-11.

References: USGS. 1973. Map of Flood-Prone Areas.

1981 Greenlawn Quad., 1969 Central Islip Quad., 1981 Bay Shore Quad.,
1967 Bay Shore West Quad.



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

I. IDENTIFICATION

01 STATE 02 SITE NUMBER
NY D068026657

II. SAMPLES TAKEN None

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

III. FIELD MEASUREMENTS TAKEN

01 TYPE	02 COMMENTS
Slope	Estimated with Suunto clinometer
Total volatile organics	Photoionization detector (HNU). No readings above background (0.8 units) outside the building except in vicinity of ventilation exhaust were intermittent readings from ambient up to 50 units were recording depending on wind direction.

IV. PHOTOGRAPHS AND MAPS

01 TYPE ☒ GROUND ☒ AERIAL	02 IN CUSTODY OF EA Science and Technology (Name of organization or individual)
03 MAPS ☒ YES ☐ NO	04 LOCATION OF MAPS EA Science and Technology

V. OTHER FIELD DATA COLLECTED (Provide narrative description)

N/A

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

EA Site Inspection, 22 January 1986.



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

I. IDENTIFICATION

01 STATE 02 SITE NUMBER
NY D068026657

II. CURRENT OWNER(S)

PARENT COMPANY (if applicable)

01 NAME Ralph Colantuoni		02 D+B NUMBER		08 NAME		09 D+B NUMBER	
03 STREET ADDRESS (P.O. Box, RFD #, etc.) 8 Drayton Avenue		04 SIC CODE		10 STREET ADDRESS (P.O. Box, RFD #, etc.)		11 SIC CODE	
05 CITY Bayshore		06 STATE NY	07 ZIP CODE 11706	12 CITY		13 STATE	14 ZIP CODE
01 NAME		02 D+B NUMBER		08 NAME		09 D+B NUMBER	
03 STREET ADDRESS (P.O. Box, RFD #, etc.)		04 SIC CODE		10 STREET ADDRESS (P.O. Box, RFD #, etc.)		11 SIC CODE	
05 CITY		06 STATE	07 ZIP CODE	12 CITY		13 STATE	14 ZIP CODE
01 NAME		02 D+B NUMBER		08 NAME		09 D+B NUMBER	
03 STREET ADDRESS (P.O. Box, RFD #, etc.)		04 SIC CODE		10 STREET ADDRESS (P.O. Box, RFD #, etc.)		11 SIC CODE	
05 CITY		06 STATE	07 ZIP CODE	12 CITY		13 STATE	14 ZIP CODE
01 NAME		02 D+B NUMBER		08 NAME		09 D+B NUMBER	
03 STREET ADDRESS (P.O. Box, RFD #, etc.)		04 SIC CODE		10 STREET ADDRESS (P.O. Box, RFD #, etc.)		11 SIC CODE	
05 CITY		06 STATE	07 ZIP CODE	12 CITY		13 STATE	14 ZIP CODE
01 NAME		02 D+B NUMBER		08 NAME		09 D+B NUMBER	
03 STREET ADDRESS (P.O. Box, RFD #, etc.)		04 SIC CODE		10 STREET ADDRESS (P.O. Box, RFD #, etc.)		11 SIC CODE	
05 CITY		06 STATE	07 ZIP CODE	12 CITY		13 STATE	14 ZIP CODE

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

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

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
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)

EA Site Inspection, 22 January 1986.
Appendix 1.1-1.



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

I. IDENTIFICATION

01 STATE 02 SITE NUMBER
NY D068026657

II. CURRENT OPERATOR (Provide if different from owner)				OPERATOR'S PARENT COMPANY (If applicable)			
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					
III. PREVIOUS OPERATOR(S) (List most recent first; provide only if different from owner)				PREVIOUS OPERATORS' PARENT COMPANIES (If applicable)			
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					
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)							
Appendixes 1.1-1 and 1.1-2. EA Site Inspection, 22 January 1986.							



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

I. IDENTIFICATION

01 STATE 02 SITE NUMBER
NY D068026657

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.)



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

I. IDENTIFICATION

01 STATE 02 SITE NUMBER

II. PAST RESPONSE ACTIVITIES

01 ☐ A. WATER SUPPLY CLOSED 04 DESCRIPTION	02 DATE _____	03 AGENCY _____
01 ☐ B. TEMPORARY WATER SUPPLY PROVIDED 04 DESCRIPTION	02 DATE _____	03 AGENCY _____
01 ☐ C. PERMANENT WATER SUPPLY PROVIDED 04 DESCRIPTION	02 DATE _____	03 AGENCY _____
01 ☒ D. SPILLED MATERIAL REMOVED 04 DESCRIPTION	02 DATE _____	03 AGENCY _____
01 ☒ E. CONTAMINATED SOIL REMOVED 04 DESCRIPTION	02 DATE _____	03 AGENCY _____
01 ☐ F. WASTE REPACKAGED 04 DESCRIPTION	02 DATE _____	03 AGENCY _____
01 ☒ G. WASTE DISPOSED ELSEWHERE 04 DESCRIPTION Hickey Carting (unlicensed carter) engaged to dispose of waste sludge (approximately 60 drums). It was brought to Islip Town Landfill.	02 DATE <u>September 1978</u>	03 AGENCY _____
01 ☐ H. ON SITE BURIAL 04 DESCRIPTION	02 DATE _____	03 AGENCY _____
01 ☐ I. IN SITU CHEMICAL TREATMENT 04 DESCRIPTION	02 DATE _____	03 AGENCY _____
01 ☐ J. IN SITU BIOLOGICAL TREATMENT 04 DESCRIPTION	02 DATE _____	03 AGENCY _____
01 ☐ K. IN SITU PHYSICAL TREATMENT 04 DESCRIPTION	02 DATE _____	03 AGENCY _____
01 ☐ L. ENCAPSULATION 04 DESCRIPTION	02 DATE _____	03 AGENCY _____
01 ☐ M. EMERGENCY WASTE TREATMENT 04 DESCRIPTION	02 DATE _____	03 AGENCY _____
01 ☐ N. CUTOFF WALLS 04 DESCRIPTION	02 DATE _____	03 AGENCY _____
01 ☐ O. EMERGENCY DIKING/SURFACE WATER DIVERSION 04 DESCRIPTION	02 DATE _____	03 AGENCY _____
01 ☐ P. CUTOFF TRENCHES/SUMP 04 DESCRIPTION	02 DATE _____	03 AGENCY _____
01 ☐ Q. SUBSURFACE CUTOFF WALL 04 DESCRIPTION	02 DATE _____	03 AGENCY _____



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

I IDENTIFICATION

01 STATE 02 SITE NUMBER
NY D068026657

II PAST RESPONSE ACTIVITIES (Continued)

01 ☐ R. BARRIER WALLS CONSTRUCTED
04 DESCRIPTION

02 DATE _____

03 AGENCY _____

01 ☐ S. CAPPING/COVERING

02 DATE 1984

03 AGENCY _____

04 DESCRIPTION In 1984 the contaminated leachpools were pumped out then backfilled with sand/gravel/concrete before paving with asphalt for a parking lot.

01 ☐ T. BULK TANKAGE REPAIRED
04 DESCRIPTION

02 DATE _____

03 AGENCY _____

01 ☐ U. GROUT CURTAIN CONSTRUCTED
04 DESCRIPTION

02 DATE _____

03 AGENCY _____

01 ☐ V. BOTTOM SEALED
04 DESCRIPTION

02 DATE _____

03 AGENCY _____

01 ☐ W. GAS CONTROL
04 DESCRIPTION

02 DATE _____

03 AGENCY _____

01 ☐ X. FIRE CONTROL
04 DESCRIPTION

02 DATE _____

03 AGENCY _____

01 ☐ Y. LEACHATE TREATMENT
04 DESCRIPTION

02 DATE _____

03 AGENCY _____

01 ☐ Z. AREA EVACUATED
04 DESCRIPTION

02 DATE _____

03 AGENCY _____

01 ☐ 1. ACCESS TO SITE RESTRICTED
04 DESCRIPTION

02 DATE _____

03 AGENCY _____

01 ☐ 2. POPULATION RELOCATED
04 DESCRIPTION

02 DATE _____

03 AGENCY _____

01 ☒ 3. OTHER REMEDIAL ACTIVITIES
04 DESCRIPTION

02 DATE 1982/1983

03 AGENCY SCDHS

Serv-All built a 3 in. concrete curb (diking) for area where: drums are stored prior to pickup; installed a high level alarm system; sealed floor drain in garage. Backfilled and paved over leachpools (1982/1983).

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

Appendixes 1.1-2, 1.1-13, 1.1-24, and 1.1-25.



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

I. IDENTIFICATION

01 STATE 02 SITE NUMBER
NY D068026657

II. ENFORCEMENT INFORMATION

01 PAST REGULATORY/ENFORCEMENT ACTION ☒ YES ☐ NO

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

- 26 October 1978 - NYSDEC notifies Serv-All to appear at a hearing for discharging without a valid SPDES permit. Hearing never held; Serv-All testifies against Hickey Carting.
- 8 January 1979 - SCDA files misdemeanor information against Serv-All for violations of Suffolk County Sanitary Code, E.C. L, and penal law. Action apparently never pursued.
- August 1979-August 1980
- SCDHS notifies Serv-All that it is in violation of E.C.L for discharging without a SPDES permit. Hearing requested concerning Serv-All by SCDHS to NYSDEC.
- August 1980 - NYSDEC hearing regarding Serv-All discharge without a permit. Order on Consent signed by Serv-All.
- October 1982 - SCDHS notifies Serv-All to appear for preliminary hearing regarding violations of E.C.L. and Suffolk County Sanitary Code.
- November 1982 - Informal hearing held by SCDHS for exceedances of New York State discharge standards and overflowing cesspools.
- January 1983 - Order on Consent (IW-82-69) signed by Serv-All.

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

Appendixes 1.1-2 and 1.1-13.

6. ASSESSMENT OF DATA ADEQUACY AND RECOMMENDATIONS

6.1 ADEQUACY OF EXISTING DATA

The available data are considered insufficient to prepare a final HRS score for this site. Site-specific ground-water quality data are lacking.

6.2 RECOMMENDATIONS

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

6.3 PHASE II WORK PLAN

6.3.1 Task 1 - Mobilization and Site Reconnaissance

Project mobilization includes review of the Phase I report and updating the site database with any new information made available since completion of the Phase I report. Based on that review, a draft scope of work for this site will be agreed to and a project schedule developed. At this time, a draft Quality Assurance/Quality Control (QA/QC) document will be prepared in accordance with the most up-to-date NYSDEC guidelines.

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

6.3.2 Task 2 - Geophysics

Multidepth EM and earth resistivity surveying will be performed around the site area perimeter to evaluate the potential presence of ground-water contaminant plumes and stratigraphic conditions. The number of stations and value of depth settings will be determined on the basis of field conditions. Results of the geophysics will be used to refine the specifications for locations, depths, and number of observation wells to be installed. It should be noted that geophysical surveying may not yield useful data because of the small size of the property and sources for interference.

6.3.3 Task 3 - Preparation of Final Sampling Plan

All data collected during Tasks 1 and 2 will be evaluated to finalize sampling and boring/well locations. The final sampling plan will be developed and

submitted to NYSDEC for approval. The plan will include final sampling locations, boring and well specifications, and reference pertinent portions of the QA/QC Plan. A final budget will be developed to complete the drilling and sampling program.

6.3.4 Task 4 - Test Borings and Observations Wells

Because there are hundreds of feet of unconsolidated sediment underlying the site, EA recommends that the subsurface investigation be confined, at this time, to the shallow glacial aquifer to confirm if ground-water contamination is present. If ground-water contamination is detected, then the investigations could be expanded to include the installation and sampling of monitoring wells completed to greater depths. Based upon currently available information, EA recommends the installation of three test borings/observations wells. This work would be performed under the fulltime supervision of a geologist. It is anticipated that the hollow-stem auger drilling method will be used. Prior to the drilling of each boring/well, and at the completion of the last boring/well, the drilling equipment which comes in contact with subsurface materials will be steam-cleaned, as well as the split-spoon sampler after obtaining each sample. Soil sampling will be performed using a split-spoon sampler at approximately 5-ft intervals and at detected major stratigraphic changes. An HNU, or similar instrument, would be used to monitor the potential organic vapors emitted during drilling operations and from each soil sample. Sediment samples which exhibit relatively high organic vapor readings will be considered for chemical analysis. Samples of major soil/unconsolidated sediment will be collected for grain-size and/or Atterburg Limits analysis.

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

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

For cost estimating purposes, it is assumed that:

- a. The depth of each of the three monitoring wells will be 35 ft below ground surface.
- b. The three wells will require 8 days to install, develop, and test.
- c. All drill sites are accessible by truck-mounted drilling rigs as determined by the driller.
- d. There are no excessive amounts of cobbles/boulders which would increase drilling time.

- e. Steam-cleaning of drilling/sampling equipment will be performed at each boring/well location. The fluids will be discharged to ground surface.
- f. All drill cuttings, fluids, and development water will be left on, or discharged to, the ground surface in the immediate area of the activity.
- g. That permission from appropriate land owners to drill borings/wells on their property will be a simple process (expedited by the NYSDEC, if necessary) so that delays during field operations are not incurred.

6.3.5 Task 5 - Sampling

All sampling and analysis will be conducted in accordance with the project QA/QC Plan. The analytical program for every water sample will include the 130 organic and 25 inorganic parameters listed in Statement of Work No. 784, New York State Department of Environmental Conservation Superfund and Contract Laboratory Protocol, January 1985. Also, all additional non-priority pollutant GC/MS major peaks will be identified and quantified. Major peaks will be considered as those whose area is 10 percent or greater than the calibrating standard(s). Based upon the currently available information, collection and analysis of the following numbers and types of samples is recommended:

- 3 Ground-water samples (one from each Phase II well).
- 2 Sediment samples (selected from those test boring/well samples which exhibit the highest organic vapor readings).

6.3.6 Task 6 - Contamination Assessment

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

6.3.7 Task 7 - Remedial Cost Estimate

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

6.3.8 Task 8 - Final Phase II Report

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

- a. The results of the Phase II investigation, complete with boring logs, photos, and sketches developed as part of the Phase II field work.
- b. Final HRS scores with detailed documentation.
- c. Selected potential remedial alternatives and associated cost estimates.

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

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

6.3.9 Task 9 - Project Management/Quality Assurance

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

6.4 PHASE II COST ESTIMATE

Based on the scope of work and assumptions described above, the estimated costs to complete the Phase II investigation of the Serv-All Laundry site are as follows:

Consultant Costs (including labor, direct costs, fee)	\$36,350
Drilling Contractor	14,175
Laboratory	<u>9,100</u>
Total	\$59,625

1064

VINCENT J. HAND
ATTORNEY AND COUNSELLOR AT LAW
RICHARD P. GEMMELLI
ROBERT J. PASSARELLI

RECEIVED APR 16 1986

P. O. BOX P 589
260 WEST MAIN STREET, BAY SHORE, N. Y. 11706

April 14, 1986

EAScience and Technology
R. D. 2 Box 91
Goshen Turnpike
Middletown, NY 10940

Att: Ms. Rebecca Ligotino

RE: Serv-All Cleaners

Dear Ms. Ligotino:

Enclosed please find the signed interview acknowledgment form in connection with the above captioned matter which has been corrected and signed by my client.

Very truly yours,


Vincent J. Hand

:cl
Enc.

INTERVIEW ACKNOWLEDGEMENT FORM

Site Name: Serv-All Laundry

I.D. Number: 152077

Person

Contacted: Mr. Ralph Colantuoni

Date: 22 January 1986

Title: Owner/Operator

Affiliation: Serv-All Uniform
Rental, Inc.

Phone: (516) 666-3550

Address: 8 Drayton Avenue
Bay Shore, New York 11706

Person Making Contact:
EA Representatives:

Type of Contact: Site Interview

Shultz/Ligotino

Interview Summary:

Serv-All rented the building new approximately 15 years ago. Originally, Serv-All sent their work out to be dry cleaned. About 12 years ago, the building was extended when the dry cleaning plant and the garage were added. The building presently contains three dry cleaning machines and three dryers. The perchloroethylene used in the dry cleaning process is stored inside in a 275-gallon storage tank. The product is delivered on about a monthly basis in quantities of approximately 110-180 gallons. An area used for storing drums of perchloroethylene waste is diked with 3-inch concrete curbing. An evaporation system designed for the perchloroethylene condensation water from the dry cleaning operation was installed in 1982/1983. A cesspool located in the front of the building receives Sanitary wastes from the bathrooms and is connected to an overflow cesspool. No drains exist in the building. One floor drain that is located in the garage has been plugged with concrete. At one time, nine leaching pools were located in the rear of the building. The number was reduced to six, and now no leaching pools exist. In the past, waste water from the washing machines were directly discharged to a septic tank with overflows to the rear leaching pools. The leaching pools were pumped out and the sludge removed. Soil from four to six feet below the bottom of the leach pool was removed. The wastes were hauled away by a Suffolk County Department of Health approved scavenger.

Interview - cont.
Page 2

Suffolk County Department of Health Services was present during these clean-up activities. A washing machine that was connected to the leach pools was eliminated two years ago, and the boiler blowout discharges to the air. The building is supplied by public water, and no monitoring wells exist on the site.

4 of 4

Interview Acknowledgement Form
Page 3

Acknowledgement:

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

Revisions (please write in corrections to above transcript):

.....
.....
.....
.....
.....

SERV-ALL CLEANERS

Signature:

Date: 7/14/88

~~RALPH COLANTUONI-Secretary-Treasurer~~

SUFFOLK COUNTY

Received from: DEPARTMENT OF HEALTH SERVICES
Suffolk Co. Dept. of: Health
INTEROFFICE MEMORANDUM

To: William C. Roberts Date: Oct. 17, 1983
From: Peter Akras
Subject: SERV-ALL UNIFORM RENTALS CORP.
8 DRAYTON AVE.
BAY SHORE

INTRODUCTION -

Serv-All Uniform Rentals Corp. is actively engaged in the washing and dry cleaning of rented work uniforms for several commercial establishments including Entenmann's Bakery. Most of the work uniforms are rentals which require cleaning during and after rental periods.

The industry is housed in a free-standing two story industrial type building with a total floor space of 9430 sq. ft. Discharge of all wash water from the cleaning operation is presently directed to a septic tank and 3 leaching pools in the rear of the building. In the past, up to 11 leaching pools were receiving wash water but most of these were abandoned as they became clogged.

The firm employs approximately 25 employees over a single shift but only 3 persons are employed in the washing and dry cleaning area. Dry cleaning solvent (perchloroethylene a.k.a. tetrachloroethylene) is used in two large self-contained dry cleaning machines. For each load, approximately 2 gallons of "perc" remains in the clothes which is then reclaimed in the dryers. The reclaimed "perc" is then piped to a solvent still which removes the water in the perc. Sludge from the still is pumped to the muck cookers and the remaining residue is held in drums for hauling. A "sniffer" is used to strip perc from the air. In the past, perc-contaminated water from the dryers, still and sniffer was apparently discharged to the leaching pools through the floor drain system. The water is now pumped to the cooling tower reservoir.

Serv-All has apparently been in continuous operation at the present site since 1969. The Islip Town Building Dept. has informed S.C.D.H.S. that a certificate of occupancy was issued for the building in 1966. In 1969 Serv-All, under the name of Collep Assoc. Corp., assumed ownership of the property. In 1972 the Building Dept. issued a

To: William C. Roberts

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Oct. 17, 1983

certificate of occupancy for an addition to the existing building.

CHRONOLOGY -

The following is a chronology of the significant events that have taken place regarding the subject firm. Copies of correspondence and inspection reports referred to below are included in this folder and are numbered in sequence. A preliminary conclusions section follows the last item in this outline.

1. April 24, 1978 - Industrial waste inspection report by S.C.D.E.C. notes that approximately 50 drums of waste dry cleaning solvent sludge were stored outdoors behind the building. The sludge is a mixture of perchloroethylene, grease and detergent. This is the first recorded inspection by the county.
2. May 1, 1978 - Letter from S.C.D.H.S. notifying Serv-All (S-A) to have drums removed by a licensed industrial waste hauler.
3. Sept. 14, 1978 - Inspection report by S.D.D.E.C. notes that approximately 60 drums of waste were removed from S-A by an unlicensed carter (Hickey Carting) sometime in June, 1978. The drums were taken to the Islip Town landfill on Blydenburgh Road in two 30 yard roll-off containers.
4. Sept. 20, 1978 - Letter from S.C.D.H.S. to N.Y.S.D.E.C. requesting legal action against S-A for depositing drums of perchloroethylene waste in the town landfill.
5. Sept. 22, 1978 - For the record memo notes that composite sample of waste sludge and used dry cleaning fluid was taken by S.C.D.E.C. from the machines at S-A.
6. Sept. 22, 1978 - Sample results from waste sludge reveal 440,000 ppm of tetrachloroethylene.
7. Oct. 26, 1978 - Letter from N.Y.S.D.E.C. to S-A notifying them to appear at a hearing for discharging without a valid SPDES permit. This hearing was never held because S-A agreed to testify against Hickey Carting.
8. Dec. 12, 1978 - For the record memo describing N.Y.S.D.E.C. formal hearing against Hickey Parting for depositing hazardous waste drums in the Islip landfill. Hickey was fined \$3000 and made liable for clean-up costs.

To: William C. Roberts

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Oct. 17, 1983

9. Jan. 8, 1979 - Misdemeanor information filed by the S.C.D.A. Frauds Bureau against S-A for violations of the Suffolk County Sanitary Code, E.C.L. and penal law. This action was apparently never pursued.
10. May 7, 1979 - For the record memo describing S.C.D.H.S. complaint investigation on May 3, 1979 at S-A. The Department attempted to investigate complaints of overflowing cesspools and noxious odors but was denied access to S-A. The overflowing pools were observed from the adjacent property and a solvent-type odor was noted. Twelve drums of waste were noted stored outdoors. Some were actively leaking.
11. Aug. 15, 1979 - For the record memo describing inspection of S-A on Aug. 1, 1979. Overflowing cesspools and noxious odors noted. Overflowing storm drain sampled for metals.
12. Aug. 16, 1979 - Notification of sample results from S.C.D.H.S. to S-A. Sample was over limits for pH, iron, lead and cadmium.
13. Aug. 21, 1979 - Letter from S.C.D.H.S. to S-A notifying them that it is a violation of the E.C.L. to discharge wastewater from the wash wheel without a SPDES permit. Application forms were enclosed with the notice.
14. Sept. 18, 1979 - Letter from S.C.D.H.S. to S-A requesting that SPDES applications be submitted by Oct. 1, 1979. Letter also recommends that contaminated water from sniffer be held rather than discharged.
15. Oct. 26, 1979 - Letter from S.C.D.H.S. to N.Y.S.D.E.C. requesting hearing for S-A for discharging without a SPDES permit.
16. Dec. 4, 1979 - Laboratory report on organic sample collected from sniffer condensate water shows 262,000 ppb of tetrachloroethylene. Lab report on metals sample of discharge shows over limits for copper, iron, zinc, lead and cadmium.
17. Jan. 18, 1980 - Letter from S.C.D.H.S. to S-A notifying them to stop discharging sniffer condensate water because of excessive tetrachloroethylene concentrations.

To: William C. Roberts

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Oct. 17, 1983

18. Feb. 20, 1980 - Lab report of re-sample from sniffer condensate shows 620 ppb of tetrachloroethylene. This is considerably less than the previous sample but still not acceptable.
19. Feb. 29, 1980 - Letter from S.C.D.H.S. to S-A again notifying them to stop discharging sniffer condensate.
20. June 23, 1980 - Inspection report by S.D.C.H.S. notes that hose from sniffer drains directly to hole in concrete floor.
21. Aug. 25, 1980 - Inspection report notes that all leaching pool covers have been raised to grade. Ten drums of waste sludge were stored outdoors. Photos taken.
22. Aug. 26, 1980 - Hearing held at N.Y.S.D.E.C. for discharging washwater without a SPDES permit. S-A signed an order on consent which required payment of a \$500 civil penalty, submission of an engineering report, sealing of all floor drains, pumping out of contaminated pools, and installation of a high level alarm system. The pumping and cleaning of all 8 pools were observed by S.C.D.H.S. on March 27, 1981.
23. Aug. 27, 1980 - Lab reports for metal samples taken from all cesspools show over the limits for lead, cadmium, copper and hexavalent chromium.
24. Sept. 15, 1980 - Letter from Burton and Hand, consulting engineers for S-A, transmitting engineering report in compliance with the D.E.C. order on consent.
25. Feb. 13, 1981 - Letter from S.C.D.H.S. to S-A summarizing meeting held to discuss compliance with order on consent. It was agreed that pools would be resampled and pumped if metals are found to be over limits.
26. Feb. 17, 1981 - Lab reports for metal samples taken from all 10 septic tanks and leaching pools show excess levels of copper, iron, lead, nickel and cadmium.
27. March 19, 1981 - Letter from S.C.D.H.S. to Burton and Hand requiring pumping of all leaching facilities at S-A. Pumping was completed on March 27, 1981.
28. May 4, 1981 - Lab report on sample from wash wheel discharge shows excess iron and cadmium.

To: William C. Roberts

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Oct. 17, 1983

29. June 11, 1981 - Letter from Burton and Hand to N.Y.S.D.E.C. transmitting SPDES application.
30. Oct. 12, 1981 - SPDES application re-submitted by Burton and Hand.
31. Nov. 25, 1981 - Inspection report notes overflowing cesspools. All solvent sludge drums stored indoors at time of inspection.
32. Jan. 18, 1982 - Letter from S.C.D.H.S. to N.Y.S.D.E.C. commenting on SPDES application. An updated engineering report and plans were requested.
33. June 16, 1982 - Lab report of samples taken from distribution pool shows excessive levels of chloroform, trichloroethylene, tetrachloroethylene, trimethylbenzene, copper, iron, nickel, zinc, lead and cadmium.
34. Aug. 5, 1982 - Investigation of overflowing pool complaint notes that pools were being pumped at time of inspection.
35. Oct. 5, 1982 - Complaint report on overflowing pools notes that pools were not overflowing at time of inspection.
36. Oct. 5, 1982 - Letter from S.C.D.H.S. to S-A notifying them to appear for a preliminary hearing for violations of the Suffolk County Sanitary Code and the E.C.L.
37. Oct. 25, 1982 - Letter from Burton and Hand informing S.C.D.H.S. that 2 cesspools at S-A will be pumped by Hazardous Waste Disposal on Nov. 1, 1982. A total of 17 cubic yards of sludge was removed from the septic tank and one distribution pool.
38. Nov. 4, 1982 - Informal hearing held by S.C.D.H.S. In the order on consent S-A agrees not to discharge industrial waste without a SPDES permit and agrees to submit an updated engineering report, pump all contaminated pools and pay a \$250 fine with \$250 suspended.
39. Nov. 5, 1982 - Lab reports on samples taken from pools and storm drains show excessive levels of copper, iron, nickel, zinc, lead, cadmium, silver, trimethylbenzene, trichloroethylene, tetrachloroethylene, xylene, diethylbenzene, chloroform and trichloroethane.

To: William C. Roberts

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Oct. 17, 1983

40. Dec. 30, 1982 - S.C.D.H.S. observed cleaning of storm drain by Chemical Pollution Control. Fourteen hundred gallons of contaminated water and 24 drums of sludge removed per C.P.C. (personal communication).
41. Jan. 18, 1983 - C.P.C. pumped out 24 drums of sludge from contaminated cesspool at S-A (personal communication).
42. March 2, 1983 - Inspection report notes that 6 pools have been abandoned. Only 3 active pools being used. New septic tank and high level alarms have been installed. S-A still discharging wash water without a SPDES permit.
43. March 2, 1983 - Lab report on sample taken from new septic tank shows excess levels of chloroform and tetrachloro-ethylene.
44. March 2, 1983 - Letter from Burton and Hand to S.C.D.H.S. transmitting updated engineering report as required by consent order.
45. March 23, 1983 - Letter from S.C.D.H.S. to N.Y.S.D.E.C. with comments on updated engineering report.
46. May 2, 1983 - Letter from S.C.D.H.S. to S-A notifying them that all items on the consent order have been satisfied.
47. Sept. 28, 1983 - Inspection report notes that metal and organic samples were taken from 2 industrial wastewater pools and 1 sanitary pool. Pools at S-A were resampled for vinyl chloride by S.C.D.H.S. on Oct. 5, 1983. Lab results on these samples may indicate the need for further legal action and/or clean-out.
48. Oct. 11, 1983 - For the record memo notes that N.Y.S.D.E.C. has not yet drafted SPDES permit for S-A because of low priority.

PRELIMINARY CONCLUSIONS -

In August, 1983 the Groundwater Resources Section found high levels of organic solvents and vinyl chloride in a test well in North Bay Shore. The vinyl chloride concentration was as high as 2800 ppb at 55 feet below the water table. N.Y.S. Dept. of Health guideline for vinyl chloride in drinking water is 5 ppb.

7 of 7

To: William C. Roberts

- 7 -

Oct. 17, 1983

Recent laboratory and field reports suggest that vinyl chloride in groundwater can result from the biodegradation of tetrachloroethylene and trichloroethylene which are common degreasing and cleaning compounds. Consequently, in Sept., 1983 the Dept. performed an industrial survey of the area upstream of the contaminated well to locate all known users of vinyl chloride, tetrachloroethylene and trichloroethylene.

No present users of vinyl chloride were found in the limited area of the survey. However, several industries were located that are presently using trichloroethylene or tetrachloroethylene. Only one of these industries (Serv-All Uniform Rentals Corp.) has a history of discharging tetrachloroethylene to its leaching pools. This industry also happens to be in the direct path of groundwater flow towards the vinyl chloride contaminated well.

Additional test wells have further defined the contaminated plume. Samples from a well located approximately 50 feet upstream from S-A show no contamination by tetrachloroethylene. However, samples from a well approximately 200 feet downstream from S-A show tetrachloroethylene levels of up to 19,000 ppb. In addition, high levels of intermediary products in the degradation of tetrachloroethylene to vinyl chloride were also found.

The Dept. is presently awaiting results of samples recently taken from the leaching pools at Serv-All. These results, together with the results from test wells of the Groundwater Resources Section are necessary before any final conclusions can be drawn.

Peter Akras
PA/rt

Received from: DEPARTMENT OF HEALTH SERVICES
Suffolk Co. Dept. of
Health

INTEROFFICE MEMORANDUM

To: FOR THE RECORD

Date: May 7, 1979

From: R. Olsen

Subject: Serv-all Uniform Rental Corp.
8 Drayton Ave., Bay Shore
Complaint # 062

On 5/2/79 I received a complaint from a Mr. Robert Gaulrapp of R. Kirmss & Sons, 12 Drayton Ave., Bay Shore. The complaint was in regard to the overflowing industrial cesspools at Serv-all. The overflow was entering the R. Kirmss & Sons' property and their storm drain. The complainant also stated that the odor was especially noxious and interfered with the operation of his place of business. After receiving the complaint, I relayed it to Mr. Fred Haggerman's office in Islip Town.

On 5/3/79 I contacted Mr. Haggerman's office and was told that the complaint had been forwarded to the Town Environmental Office without action. I then contacted the Town Environmental Office and was told that they never received the complaint. I then decided to follow it up on my own.

Upon arriving at the complainant's place of business, I interviewed Mr. Robert Gaulrapp. The following are the main points derived from this investigation:

1. According to Mr. Gaulrapp, two years previous, Serv-all installed 8 cesspools to receive wash water wastes from their commercial cleaning operation.
2. One of these pools had a grated cover placed on it so that it acted as a storm drain as well as an industrial pool.
3. According to Mr. Gaulrapp, the pools overflow every 3 months. Sometimes Serv-all doesn't have them pumped for a week or so. They have never been pumped prior to overflowing.
4. The odor emitted by the overflowing pools is very bad and has a chemical smell. Mr. Gaulrapp stated that the odor sometimes also carried a strong solvent smell.

FOR THE RECORD

- 2 -

May 7, 1979

Received from:
Suffolk Co. Dept. of
Health

5. Serv-all has stated on previous inspections that rain water run-off from the R. Kirmss & Sons' property is the cause of the problem since some of the water from the latter's roof drain does enter the Serv-all yard. However, there has not been sufficient rainfall in the 2 week period prior to this date, to render this a major factor.
6. Mr. Gaulrapp stated that even after Serv-all pumps the pools, the residual standing puddles are not cleaned up. This was evident during the inspection when at least 5 puddles were noted.
7. Serv-all was actively storing 12 drums of what appeared to be an oil/solvent waste in the alleyway. Two of these drums were actively leaking from their sides and one was overflowing through the top (the top cap on this latter drum was not in place).
8. Since I have been denied access to the Serv-all property, I asked Mr. Gaulrapp to determine if these drums were full. He stated that they were.
9. A strong solvent odor permeated the alleyway. This odor was the same as that previously encountered in the solvent cleaning area of the Serv-all facility.
10. A number of the puddles had a distinctive brown substance floating on them. This floating liquid appeared to be an oil/solvent mixture.
11. A number of stains in the alleyway and behind R. Kirmss & Sons were noted. These stains darkened the asphalt, as well as softened it.
12. Two samples were obtained from the storm drain behind the complainant's building. Five pictures were also taken (attached).
13. After the investigation, Mr. Gaulrapp asked if anything could be done to rectify the existent situation. Mr. Gaulrapp also offered to give an affidavit, if requested.

R. Olsen
RO/rt
Att.



Received from:
Suffolk Co. Dept. of DEPARTMENT OF HEALTH SERVICES
Health

INTEROFFICE MEMORANDUM

Appendix 1.1-4

1 of 2

To: FOR THE RECORD

Date: Aug. 15, 1979

From: E. Governale

Subject: Serv-all Uniform Rentals, Inc.
8 Drayton Ave., Bay Shore

On 8/1/79 at 11:00 a.m. in response to a complaint from R. Kirmss & Sons, Inc., 12 Drayton Ave., Bay Shore, I visited Serv-all Uniform Rentals Corp., 8 Drayton Ave., Bay Shore.

Upon my arrival I walked through the alleyway between 8 and 12 Drayton Ave. and observed what appeared to be a storm drain behind Serv-all, overflowing and forming a large, foul-smelling puddle over most of the yard. This puddle was running into a storm drain directly behind Kirmss' building. The puddle consisted of an opaque white liquid with a floating reddish-brown film. There were fabric threads in this liquid.

I then spoke to Mr. Gaulrapp of Kirmss, who emphasized his concern as to the health aspects of this discharge and the comfort of his employees. The odors were particularly obnoxious due to the hot and humid weather conditions. He pointed out which pool was overflowing, a storm drain adjacent to a dirt mound on the southernmost section of Serv-all's property. It would have been difficult to ascertain this without Mr. Gaulrapp, for as noted previously, most of Serv-all's back yard was submerged under this same white discharge and I could not discern the sites of additional pools and it was my first visit to either Servall or R. Kirmss.

I then spoke to the secretary-receptionist at Serv-all, identified myself and explained my presence. She was very pleasant and informed me that the bosses were gone. They act as salesmen and they are on the road much of the time but are in early in the morning. She referred to them as Bill and Ralph Cannatoni. She was made aware of the problem and called Al Aparo Cesspool Service to pump out the pool. This company provided this service at approximately 2:45 p.m. the same day.

I was preparing to leave when a man, identifying himself as John Coke, came up to me and told me to accompany him and he would show me what was going on. He told me he was the brother-in-law to the bosses and I assumed he had some authority. We went to the back

FOR THE RECORD

- 2 -

Aug. 15, 1979

Received from:
Suffolk Co. Dept. of
Health

of the property where we again observed the overflowing pools. Mr. Coke pointed out the main pool. There was an approx. 9" elbow pipe entering into this pool. This was from a washing machine, Mr. Coke said. He made the suggestion that to alleviate some of the flooding, the company should use less water in the washer but at a higher temperature.

He said the odors come from the type of soiled laundry that is generated from Entenmann's Bakery, Serv-all's main client.

Mr. Coke said that the other pools act as overflows.

We walked back along the east side of the building. I saw an open door, which I entered partially. I noticed a large piece of equipment along the south wall, which was situated so as to be probably connected to the elbow pipe observed earlier outside.

Mr. Coke then went inside the building to work. I walked around to the west side of the building and observed a "fluffy" sludge-type material, which would have been deposited here from a drying or dry cleaning operation.

I returned to my office and obtained sample bottles for sampling wash water. Back at Serv-all I spoke to the receptionist again and asked for John Coke. She told me he was busy. Then, another employee told me that I don't know what I'm talking about and that I wasn't supposed to be on Serv-all's property without the bosses' permission. He was very hostile. I took the sample from R. Kirmss' storm drain.

It should be noted that there was perchlorethylene drum storage on the west side of the building. Storage was adequate at this time although ground appeared darkly stained from what may have been prior spillage.

E. Governale
EG/rt
Att.

E. Governale

Received from:
Suffolk Co. Dept. of
Health

COUNTY OF SUFFOLK



DEPARTMENT OF HEALTH SERVICES

NOTIFICATION OF UNSATISFACTORY INDUSTRIAL WASTE SAMPLING

Date Aug. 16, 1979

Serv-all Uniform Rentals, Inc.
8 Drayton Ave.
Bay Shore, N.Y. 11706

Gentlemen:

On Aug. 1, 1979 samples of your industrial waste were taken from your overflowing cesspool run-off**. Upon analysis, the following parameters were found to be unsatisfactory:

- | | |
|-----------------------|---|
| 1. pH - 9.1 | 6. |
| 2. Iron - 7 mg/l | 7. ** SAMPLE COLLECTED FROM ADJACENT PROPERTY |
| 3. Lead - 1.4 mg/l | 8. |
| 4. Cadmium - .06 mg/l | 9. |
| 5. | 10. |

The acceptable limits on each of these parameters, according to New York State Groundwater Standards are as follows:

- | | |
|-----------------------|-----|
| 1. pH - 6.5 - 8.5 | 6. |
| 2. Iron - .6 mg/l | 7. |
| 3. Lead - .05 mg/l | 8. |
| 4. Cadmium - .02 mg/l | 9. |
| 5. | 10. |

You should be aware that these unsatisfactory conditions constitute violations of the N.Y.S. Environmental Conservation Law. Please see that they are corrected as soon as possible. If you have any questions or need any assistance, please do not hesitate to contact this office.

Stephen A. Costa
Stephen A. Costa, P.E.
Industrial Waste and Hazardous
Materials Control Section

12. (GW)

Received from:
Suffolk Co. Dept. of
Health

1 of 1

Aug. 21, 1979

Mr. Ralph Colantunoni, Pres.
Suffolk Uniform Rentals Corp.
3 Baylen Ave.
Bay Shore, N.Y. 11706

Dear Mr. Colantunoni:

On Aug. 1, 1979 an inspection was made of your premises in response to a complaint.

This inspection revealed overflowing cesspools located behind your property. Our inspector was told and shown by an employee that this overflow condition was caused by a discharge from a washing machine located in your building.

A permit to discharge from this machine is on record. As such, you are in violation of New York State Environmental Conservation Law, Sections 17-0905, 17-0911 and 17-0901 for discharging industrial waste to a leaching facility without first having obtained a State Pollutant Discharge Elimination System (SPDES) permit.

In order to correct this violation you must immediately cease discharging of this industrial waste. If you wish to continue such a discharge in the future, you must apply for a SPDES permit and meet all standards prescribed by New York State law. Enclosed along with 4 copies of an application for a SPDES permit. Please complete and return all 4 copies to this office within 2 weeks along with the proper fee so that we may submit them to New York State Dept. of Environmental Conservation.

An inspection will be made within 7 days to determine your compliance in eliminating this discharge until the permit is issued.

Sincerely,

Stephen P. Costa, P.E.
Suffolk County
Industrial Waste and Wastewater
Pollution Control Section
8/21/79

REQUEST FOR LEGAL ACTION

Appendix 1.1-7

Received from: Waste and Hazardous Materials Control Section
Suffolk Co. Dept. of
Health

1 of 2

Date of Request Oct. 26, 1979

1. Name of Polluter

- a. Corporate, Partnership, Proprietorship
Serv-all Uniform Rentals Corp.
- b. Common same

2. Address of Polluter & Phone No.

- a. Office 8 Drayton Ave., Bay Shore
- b. Site of Pollution same

3. Contacts

- a. President, XXXXXXXXXX Ralph Colantunoni
- b. Other Persons Interviewed John Coke
Mr. Gaulrapp, R. Kirmss & Sons, 12 Drayton Ave., Bay Shore
- c. Regulatory Personnel Involved Robert-Carl Olsen, Eileen
Governale, Roy Gilbert, James Pim, Stephen Costa

4. Violations Charged

Viol. E.C.L. Sections 17-0501, 17-0505, 17-0511, 17-0701 and 17-0807 and viol. 6 NYCRR 703.6 in that: respondent on 8/1/79 and on other dates prior thereto, discharged liquid industrial wastes to the waters of the state in excess of allowable concentrations without having first obtained a valid SPDES permit therefor.

RECOMMENDATIONS AND COMMENTS:

On 8/1/79, in response to a complaint, Eileen Governale visited respondent's premises and was admitted by a Mr. John Coke. At that time, Ms. Governale observed overflowing cesspools resulting from a discharge thereto from a washing machine operation from within the premises. Respondent has no valid SPDES permit.

On 8/21/79 respondent was sent applications for a SPDES permit, which applications were never completed and returned.

On 10/30/79 at a meeting at which Vincent Hand, Respondent's attorney, was present, the SPDES permit requirement was again enunciated.

As of the present, respondent is still maintaining his unpermitted discharge and has not applied for a SPDES permit.

RECOMMENDATIONS:

1. Immediate application for permit.
2. Immediate cessation of discharge.
3. Engineering report detailing how waste to be handled with application for 27-0913 permit, if needed.
4. A civil penalty and financial inducement to comply with the above.

ATTACHED ALL PERTINENT CORRESPONDENCE AND DOCUMENTARY EVIDENCE OF VIOLATIONS. IF PHOTOGRAPHS ARE AVAILABLE, THEY WILL BE PRESENTED AT ANY ENFORCEMENT PROCEEDING.

Oct. 26, 1979

SIGNED

Roy Gilbert

Date: 12/1/79
Public Date:
Private Date: Appendix 1.1-8
Other:
Date Completed: 12/1/79
Examined By: L.H. B. JR.

184

1. Name Serv-All Uniform Rental Corp Owner or District 8 Drayton Ave
2. Location 'Sniffer' condensate - prior to discharge Bay, Shore.

Remarks:

1,1,2 Trichloro 1,2,2 Trifluoroethane

1,1 Trichloroethane

1,2 Trichloroethylene

1,1,2-trichloroethylene

262,000

16.

224

Received from:
Suffolk Co. Dept. of
Health

Jan. 18, 1980

Mr. Ralph Colantuoni, Pres.
Serv-all Uniform Rentals Corp.
3 Drayton Ave.
Bay Shore, N.Y. 11706

Dear Mr. Colantuoni:

Enclosed please find a copy of a sample analysis from your sniffer condensate prior to discharge. As you can see, there is an extremely high concentration of tetrachloroethylene in this water.

(It is recommended that you immediately implement holding of this discharge with your other industrial wastes. Since I understand the volume is rather small, this should not be a problem.)

In addition, we have not received SPDES permit applications or any other information from you or your agents regarding meeting discharge standards or bringing your discharge into compliance with rules and regulations of New York State Environmental Conservation Law. We would like to receive same as soon as possible in order to eliminate this continuing violation.

Very truly yours,

Stephen A. Costa, P.E.
Sr. San. Engineer
Industrial Waste and Hazardous
Materials Control Section
SFC/rt
Encl.

10-15-13-2
Date 2-10-80
Time 11:30
Col. By J. J. O'Leary
(Name not Initials)

Received in Lab 2-20-80 (12)
Public Water
Private Water
Other
Date Completed 2-26-80
Examined By K. H. C. P.

SUFFOLK COUNTY DEPARTMENT OF HEALTH SERVICES
DIVISION OF MEDICAL LEGAL INVESTIGATIONS & FORENSIC SCIENCES
PUBLIC HEALTH LABORATORY

TRACE ORGANIC ANALYSIS OF WATER

Name	Sewer - All Water from Residual Corps		Owner or District	
Location	8 Desjardins Ave. Bayshore			
Point of Collection	From bucket bed discharging from water separator			
Remarks:				
	COMPOUND		ppb	
	1,1,2 Trichloro 1,2,2 Trifluoroethane			
				<5
	Chloroform			
				<5
	1,1,1 Trichloroethane			
				3
	Carbon Tetrachloride			
				<2
	1,1,2 Trichloroethylene			
				<5
	Chlorobromomethane			
				<3
	Tetrachloroethylene			
				620
	Bromoform			
				<5
	Bromodichloromethane			
				<3

4 of 4

Received from:
Suffolk Co. Dept. of
Health

Feb. 29, 1980

Mr. Ralph Colantuoni, Pres.
Carv-all Uniform Rentals Corp.
8 Graydon Ave.
Bay Shore, N.Y. 11706

Dear Mr. Colantuoni:

Enclosed please find a copy of sample analysis from your
sniffer condensate, which sample was taken on Feb. 20,
1980.

As you can see from the results, there is still excess
tetrachloroethylene (perc) in the water such that it
cannot be directly discharged to the ground.

The results of the other samples taken from your cooling
machine have not yet been returned to us. We will be
happy to discuss these items further with your engineer
in order to bring about a proper method of compliance
with discharge standards.

Very truly yours,

Stephen A. Costa, P.E.
Sr. San. Engineer
Industrial Waste and Hazardous
Materials Control Section
SAC/rt
Encl.

cc: Donald Hand, 144 Medford Ave., Patchogue, N.Y. 11772

STATE OF NEW YORK
 DEPARTMENT OF ENVIRONMENTAL CONSERVATION

..... X
 In the Matter of the Alleged Violation :
 of Article 17 of the Environmental Conser- :
 vation Law of the State of New York, by : ORDER ON CONSENT
 :
 SERV-ALL UNIFORM RENTALS, INC. : FILE NO. 1-J674
 :
 :
 (Suffolk County) Respondent . X

WHEREAS, Section 17-0505 of the Environmental Conservation Law of the State of New York, prohibits the discharge of industrial waste into the waters of the State without a valid State Pollutant Discharge Elimination System (SPDES) Permit; and

WHEREAS, Section 17-0511 of the Environmental Conservation Law of the State of New York, prohibits the use of existing or new outlets, which discharge sewage, industrial waste or other wastes into classified waters of this State; and

WHEREAS, this Department has documented an instance of Respondent draining, running and discharging liquid industrial waste into the waters of the State in excess of allowable concentration, without having first obtained a SPDES Permit; and

WHEREAS, Respondent has affirmatively waived its right to a public hearing in this matter in the manner provided by law and having consented to the issuing and entering of this Order pursuant to the provisions of the Environmental Conservation Law, agrees to be bound by the terms and conditions contained therein.

NOW, having considered this matter and being duly advised, it is

ORDERED, that with respect to the aforesaid violations, there is hereby imposed upon respondent, a penalty in the sum of Five Hundred (\$500) Dollars, to be made payable to this Department upon execution of this Order; and it is further

ORDERED, that the Respondent shall strictly adhere to the terms and conditions outlined in Schedule A, the compliance schedule attached hereto and made a part hereof; and it is further

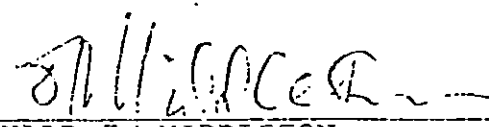
ORDERED, that the provisions, terms and conditions set forth in this Order shall be deemed to bind Respondent, its successors and assigns and all persons, firms and corporations acting under or for it, including, but not limited to those who may carry on any or all of the operations now being conducted by Respondent, whether at the present location or at any other in this State; and it is further

ORDERED, that in those instances in which the Respondent desires that any of the provisions, terms or conditions of this Order be changed, it shall make written application, setting forth the grounds for the relief sought, to the Commissioner c/o Joan B. Scherb, Regional Attorney, New York State Department of Environmental Conservation, Building 40, State University of New York, Stony Brook, New York 11794; and it is further

ORDERED, that any change in this Order shall not be made or become effective, except as specifically set forth by written order of the Commissioner, such written order being made either upon written application of Respondent, or upon the Commissioner's own findings.

Dated: Albany, New York
1980

ROBERT F. FLACKE
Commissioner of
Environmental Conservation

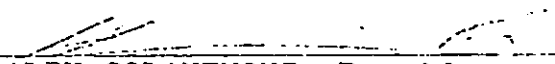
By 
DONALD J. MIDDLETON
Regional Director

TO: Serv-All Uniform Rentals, Inc.
8 Drayton Avenue -
Bay Shore, New York 11706

CONSENT BY RESPONDENT

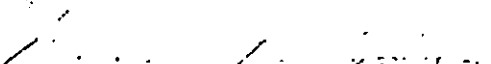
Respondent acknowledges the authority and jurisdiction of the Commissioner of Environmental Conservation of the State of New York to issue the foregoing Order, waives public hearing or other proceedings in this matter, accepts the terms and conditions set forth in the Order and consents to the issuance thereof.

SERV-ALL UNIFORM RENTALS, INC.

By 
RALPH COLANTUONI, President

STATE OF NEW YORK)
ss.:
COUNTY OF SUFFOLK)

On the 10th day of April, 1980, before me personally came RALPH COLANTUONI to me known, who being duly sworn, deposed and said that he resides at 273 Pond Rd., Smithtown, N.Y. that he is the President of Respondent Corporation and that he signed his name for and on behalf of said corporation with full authority so to do.


NOTARY PUBLIC

SCHEDULE A

Compliance Schedule
for
SERV-ALL UNIFORM RENTALS, INC.

Immediately,

Respondent shall cease discharge of contact cooling water.

✓ On or before November 20, 1980

Respondent shall submit an approvable engineering report.

✓ On or before November 20, 1980

Respondent shall seal all floor drains.

✓ On or before November 20, 1980

Respondent shall pump out pools on the west side of the property and fill with sand.

✓ Two weeks after sample results are obtained,

Respondent shall pump all sanitary pools on the property, if required.

✓ On or before January 5, 1981

Respondent shall install high level alarm systems.

FIELD NO. 184 DO 27-3
 BY David Obry
 NAME, NOT INITIALS
 COL. 27 Aug. 1980
 COL. 1039

APPENDIX 11-10
 INFO. 8-80-233 1 of 20
 TYPE SAMPLE IND - FPL
 DATE REC'D. 8/27
 TIME REC'D. 2 PM
 DATE COMPLETED 9/5/80

SUFFOLK COUNTY HEALTH SERVICES LABORATORY
 CHEMICAL EXAMINATION OF WATER, SEWAGE, INDUSTRIAL WASTE

NAME OR FIRM Serv-All Uniform Rental Corp.
 ADDRESS OR LOCATION 8 Prayton Ave, Bay Shore.
 DATE OF COLLECTION Pool #10, serv of Serv-All, concrete cover.
 REMARKS/INSTRUCTIONS

TEST	RESULT	TEST	RESULT ^{mg.} liter	TEST	RESULT ^{mg.} liter
CONDUCT	umho	NITRATE-N		✓ COPPER	.6
pH	(9.6)	NITRITE-N		IRON	
TEST	RESULT ^{m.g.} liter	AMMONIA-N		MANGANESE	
ph. ALKALINITY		TKN		✓ CHROMIUM	.10
T. ALKALINITY		O-PO ₄ -P		NICKEL	
CHLORIDE				ZINC	
FLUORIDE				MAGNESIUM	
CYANIDE		TOT. SOLIDS		CALCIUM	
		SUS. SOLIDS		✓ LEAD	(.4)
SULFATE		DISS. SOLIDS		✓ CADMIUM	(.03)
MBAS				SILVER	
C.O.D.				SODIUM	
T.O.C.				POTASSIUM	
				BARIUM	
		FIELD D.O.			
		FIELD TEMP			
		FIELD pH			
		FIELD COND.	umho		23.

FIELD NO. 10 DO 27-3
 BY David O'Bray
 NAME, NOT INITIALS
 DATE COL. 27 Aug. 1980
 TIME COL. 1035

LABORATORY
 LAB NO. 8-80-232 2 of 20
 TYPE SAMPLE IND-PRE
 DATE REC'D. 8/27
 TIME REC'D. 2 PM
 DATE COMPLETED 9/5/80

SUFFOLK COUNTY HEALTH SERVICES LABORATORY
 CHEMICAL EXAMINATION OF WATER, SEWAGE, INDUSTRIAL WASTE

NAME OR FIRM Serv-All Uniform Rental Corp.
 ADDRESS OR LOCATION 8 Prayton Ave, Bay Shore.
 POINT OF COLLECTION Pool #9, rear of Serv-All, current cover.
 MARKS/INSTRUCTIONS

TEST	RESULT	TEST	RESULT	TEST	RESULT
CONDUCT	umho	NITRATE-N		✓ COPPER	.6
pH	9.7	NITRITE-N		IRON	
TEST	RESULT mg. liter	AMMONIA-N		MANGANESE	
ph. ALKALINITY		TKN		✓ CHROMIUM	.09
T. ALKALINITY		O-PO ₄ -P		NICKEL	
CHLORIDE				ZINC	
FLUORIDE				MAGNESIUM	
CYANIDE		TOT. SOLIDS		CALCIUM	
		SUS. SOLIDS		✓ LEAD	(.11)
SULFATE		DISS. SOLIDS		✓ CADMIUM	(.04)
MBAS				SILVER	
C.O.D.				SODIUM	
T.O.C.				POTASSIUM	
				BARIUM	
		FIELD D.O.			
		FIELD TEMP			
		FIELD pH			
		FIELD COND.	umho		

[FIELD]

[LABORATORY]

NO. 8-80-231 3 of 20BY David Oberg
NAME, NOT INITIALSCOL. 27 Aug. 1980COL. 11:23 10:30TYPE SAMPLE IND-179DATE REC'D. 8/27TIME REC'D. 2 PMDATE COMPLETED 9/5/80SUFFOLK COUNTY HEALTH SERVICES LABORATORY
CHEMICAL EXAMINATION OF WATER, SEWAGE, INDUSTRIAL WASTENAME OR FIRM Sew-All Uniform Rental Corp.ADDRESS OR LOCATION 8 Prayton Ave, Bay Shore.POINT OF COLLECTION Pool # 8, near at Sew-All, cement cover.

REMARKS/INSTRUCTIONS

TEST	RESULT	TEST	RESULT $\frac{\text{mg.}}{\text{liter}}$	TEST	RESULT $\frac{\text{mg.}}{\text{liter}}$
CONDUCT	<u>umho</u>	NITRATE-N		✓ COPPER	<u>0.8</u>
✓ pH	<u>10.2</u>	NITRITE-N		IRON	
TEST	RESULT $\frac{\text{mg.}}{\text{liter}}$	AMMONIA-N		MANGANESE	
ph. ALKALINITY		TKN		✓ CHROMIUM	<u>.14</u>
T. ALKALINITY		O-PO ₄ -P		NICKEL	
CHLORIDE				ZINC	
FLUORIDE				MAGNESIUM	
CYANIDE		TOT. SOLIDS		CALCIUM	
		SUS. SOLIDS		✓ LEAD	<u>.06</u>
		DISS. SOLIDS		✓ CADMIUM	<u>.07</u>
SULFATE				SILVER	
MBAS				SODIUM	
C.O.D.				POTASSIUM	
T.O.C.				BARIUM	
		FIELD D.O.			
		FIELD TEMP			
		FIELD pH			
		FIELD COND.	<u>umho</u>		

[FIELD]

LAB. NO. 8-80-230 4 of 20BY David O'Bray
NAME, NOT INITIALSCOL. 27 Aug. 1980COL. 10:28LAB. NO. 8-80-230TYPE SAMPLE IND - PPADATE REC'D. 8/27TIME REC'D. 2 PMDATE COMPLETED 9/5/80 P.M.SUFFOLK COUNTY HEALTH SERVICES LABORATORY
CHEMICAL EXAMINATION OF WATER, SEWAGE, INDUSTRIAL WASTENAME OR FIRM Serv-All Uniform Rental Corp.ADDRESS OR LOCATION 8 Prayton Ave, Bay Shore.POINT OF COLLECTION Pool # 7, rear of Serv-All, covered cover.

REMARKS/INSTRUCTIONS

TEST	RESULT	TEST	RESULT mg./liter	TEST	RESULT mg./liter
CONDUCT	<u>unpho.</u>	NITRATE-N		✓ COPPER	<u>1.0</u>
pH	<u>10.2</u>	NITRITE-N		IRON	
TEST	RESULT mg./liter	AMMONIA-N		MANGANESE	
ph. ALKALINITY		TKN		✓ CHROMIUM	<u>.14</u>
T. ALKALINITY		O-PO ₄ -P		NICKEL	
CHLORIDE				ZINC	
FLUORIDE				MAGNESIUM	
CYANIDE		TOT. SOLIDS		CALCIUM	
		SUS. SOLIDS		✓ LEAD	<u>.08</u>
		DISS. SOLIDS		✓ CADMIUM	<u>.07</u>
SULFATE				SILVER	
MBAS				SODIUM	
C.O.D.				POTASSIUM	
T.O.C.				BARIUM	
		FIELD D.O.			
		FIELD TEMP			
		FIELD pH			
		FIELD COND.	<u>unpho</u>		

FIELD NO. 7-100 27-3
 BY David Obray
 NAME, NOT INITIALS
 RECOL. 27 Aug. 1980
 RECOL. 10:25

LABORATORY 8-80-229 5 of 20
 TYPE SAMPLE IND-APP
 DATE REC'D. 8/27
 TIME REC'D. 2 PM
 DATE COMPLETED 9/5/80

SUFFOLK COUNTY HEALTH SERVICES LABORATORY
 CHEMICAL EXAMINATION OF WATER, SEWAGE, INDUSTRIAL WASTE

NAME OR FIRM Scru-All Uniform Rental Corp.
 ADDRESS OR LOCATION 8 Pringle Ave, Bay Shore.
 POINT OF COLLECTION Pool #6, rear of Scru-All, cement cover
 REMARKS/INSTRUCTIONS

TEST	RESULT	TEST	RESULT	TEST	RESULT
CONDUCT	umho	NITRATE-N		✓ COPPER	0.7
pH	10.2	NITRITE-N		IRON	
TEST	RESULT	AMMONIA-N		MANGANESE	
ph. ALKALINITY	m.g. / liter	TKN		✓ CHROMIUM	.08
T. ALKALINITY		O-PO ₄ -P		NICKEL	
CHLORIDE				ZINC	
FLUORIDE				MAGNESIUM	
CYANIDE		TOT. SOLIDS		CALCIUM	
		SUS. SOLIDS		✓ LEAD	.61
SULFATE		DISS. SOLIDS		✓ CADMIUM	.05
MBAS				SILVER	
C.O.D.				SODIUM	
T.O.C.				POTASSIUM	
				BARIUM	
		FIELD D.O.			
		FIELD TEMP			
		FIELD pH			
		FIELD COND.	umho		

FIELD

LAB NO. 67800-27-3

COL BY David O'Bray
NAME, NOT INITIALS

DATE COL. 27 Aug. 1980

TIME COL. 10:21 AM

LAB NO. 8-80-278 6 of 20

TYPE SAMPLE IND-PH

DATE REC'D. 8/27

TIME REC'D. 2 PM

DATE COMPLETED 9/5/80

SUFFOLK COUNTY HEALTH SERVICES LABORATORY
CHEMICAL EXAMINATION OF WATER, SEWAGE, INDUSTRIAL WASTE

NAME OR FIRM Sew-All Uniform Rental Corp.

ADDRESS OR LOCATION 8 Dryden Ave, Bay Shore.

POINT OF COLLECTION Site #6, storm drain, roof of Sew-All, iron grate

REMARKS/INSTRUCTIONS

TEST	RESULT	TEST	RESULT mg./liter	TEST	RESULT
CONDUCT	umho	NITRATE-N		✓ COPPER	0.5
✓ pH	9.5	NITRITE-N		IRON	
TEST	RESULT mg./liter	AMMONIA-N		MANGANESE	
ph. ALKALINITY		TKN		✓ CHROMIUM	.05
T. ALKALINITY		O-PO ₄ -P		NICKEL	
CHLORIDE				ZINC	
FLUORIDE				MAGNESIUM	
CYANIDE		TOT. SOLIDS		CALCIUM	
		SUS. SOLIDS		✓ LEAD	(.4)
		DISS. SOLIDS		✓ CADMIUM	2.02
SULFATE				SILVER	
NBAS				SODIUM	
C.O.D.				POTASSIUM	
T.O.C.				BARIUM	
		FIELD D.O.			
		FIELD TEMP			
		FIELD pH			
		FIELD COND.	umho		

FIELD

15 11 DO 27-8

David Oberg
NAME, NOT INITIALS

27 Aug. 1980

10:19 AM

LAB NO.

8-80-227

7 of 20

TYPE SAMPLE

IND-PH

DATE REC'D.

8/27

TIME REC'D.

2 PM

DATE COMPLETED

9/5/80

SUFFOLK COUNTY HEALTH SERVICES LABORATORY
CHEMICAL EXAMINATION OF WATER, SEWAGE, INDUSTRIAL WASTE.

FIRM

Serv-All Uniform Rental Corp.

ADDRESS OR LOCATION

8 Prigton Ave, Bay Shore.

COLLECTION

Pool #5, rear of Serv-All, cement cover.

REMARKS/INSTRUCTIONS

TEST	RESULT	TEST	RESULT	TEST	RESULT
CONDUCT	umho	NITRATE-N	mg. liter	✓ COPPER	1.0
	10.0	NITRITE-N.		IRON	
TEST	RESULT	AMMONIA-N		MANGANESE	
	m.g. liter	TKN		✓ CHROMIUM	.10
5. ALKALINITY		0-PO ₄ -P		NICKEL	
1. ALKALINITY				ZINC	
CHLORIDE				MAGNESIUM	
FLUORIDE		TOT. SOLIDS		CALCIUM	
CYANIDE		SUS. SOLIDS		✓ LEAD	.09
		DISS. SOLIDS		✓ CADMIUM	.06
SULFATE				SILVER	
MBAS				SODIUM	
C.O.D.				POTASSIUM	
T.O.C.				BARIUM	
		FIELD D.O.			
		FIELD TEMP			
		FIELD pH			
		FIELD COND.	umho		

FIELD

4 DO 27-8

David Obry

NAME, NOT INITIALS

27 Aug. 1980

COL.

1015

COL.

LABORATORY

8 of 20

LAB NO.

8-80-236

TYPE SAMPLE

IND-PH

DATE REC'D.

8/27

TIME REC'D.

2 PM

DATE COMPLETED

9/5/80

EXL Cr + 69/11/80

SUFFOLK COUNTY HEALTH SERVICES LABORATORY
CHEMICAL EXAMINATION OF WATER, SEWAGE, INDUSTRIAL WASTE

Serv-All Uniform Rental Corp.

8 Prayton Ave, Bay Shore.

Pool #4, rear of Serv-All, cement cover.

FIRM

ADDRESS OR LOCATION

DATE OF COLLECTION

REMARKS/INSTRUCTIONS

TEST		RESULT	TEST		RESULT	TEST		RESULT
					mg./liter			mg./liter
CONDUCT		umho	NITRATE-N			✓ COPPER		6.0
pH		8.9	NITRITE-N			IRON		
TEST		mg./liter	AMMONIA-N			MANGANESE		
PH. ALKALINITY			TKN			✓ CHROMIUM		1.7
T. ALKALINITY			O-PO ₄ -P			NICKEL		
CHLORIDE						ZINC		
FLUORIDE						MAGNESIUM		
CYANIDE			TOT. SOLIDS			CALCIUM		
			SUS. SOLIDS			✓ LEAD		4.3
			DISS. SOLIDS			✓ CADMIUM		0.30
SULFATE						SILVER		
MEAS						SODIUM		
C.O.D.						POTASSIUM		
T.O.C.						BARIUM		
			FIELD D.O.			X		7.1
			FIELD TEMP					
			FIELD pH					
			FIELD COND.		umho			

FIELD

NO. 311 DO 27-8

BY David Obrey
NAME, NOT INITIALS

TE COL. 27 Aug. 1980

WE COL. 1005

LAB NO.

LABORATORY 8-80-125 9 & 20

TYPE SAMPLE

IND-1 cell

DATE REC'D

8/27

TIME REC'D

2 PM

DATE COMPLETED

9/5/80 vi

SUFFOLK COUNTY HEALTH SERVICES LABORATORY
CHEMICAL EXAMINATION OF WATER, SEWAGE, INDUSTRIAL WASTE

Serv-All Uniform Rental Corp.

8 Dryden Ave, Bay Shore.

Pool #3, rear of Serv-All, inc. cover.

MARKS/INSTRUCTIONS

TEST		RESULT	TEST		RESULT	TEST		RESULT
CONDUCT		umho	NITRATE-N			✓ COPPER		(1.2)
pH		10.2	NITRITE-N			IRON		
TEST		RESULT	AMMONIA-N			✓ CHROMIUM		16
ph. ALKALINITY			TKN			NICKEL		
T. ALKALINITY			O-PO ₄ -P			ZINC		
CHLORIDE						MAGNESIUM		
FLUORIDE			TOT. SOLIDS			CALCIUM		
CYANIDE			SUS. SOLIDS			✓ LEAD		(0.9)
			DISS. SOLIDS			✓ CADMIUM		(0.07)
SULFATE						SILVER		
MBAS						SODIUM		
C.O.D.						POTASSIUM		
T.O.C.						BARIUM		
			FIELD D.O.					
			FIELD TEMP					
			FIELD pH					
			FIELD DO		umho			

LABORATORY 10 of 20

FIELD
ID NO. 12100 27-8
BY David O'Bray
NAME, NOT INITIALS
DATE COL. 27 Aug. 1980
TIME COL. 10:42 AM

LABO. 8-80-234
TYPE SAMPLE IND-PRY
DATE REC'D. 8/27
TIME REC'D. 8 PM
DATE COMPLETED 9/5/80

SUFFOLK COUNTY HEALTH SERVICES LABORATORY
CHEMICAL EXAMINATION OF WATER, SEWAGE, INDUSTRIAL WASTE

NAME OR FIRM Serv-All Uniform Rental Corp.
ADDRESS OR LOCATION 8 Prayton Ave, Bay Shore.
INT OF COLLECTION Site #1, rear of Serv-All, cement cover.
REMARKS/INSTRUCTIONS

TEST	RESULT	TEST	RESULT	TEST	RESULT
CONDUCT	umho	NITRATE-N		✓ COPPER	.85
✓ pH	(10.1)	NITRITE-N		IRON	
TEST	RESULT ^{m.g.} / _{liter}	AMMONIA-N		MANGANESE	
ph. ALKALINITY		TKN		✓ CHROMIUM	.14
T. ALKALINITY		O-PO ₄ -P		NICKEL	
CHLORIDE				ZINC	
FLUORIDE				MAGNESIUM	
CYANIDE		TOT. SOLIDS		CALCIUM	
		SUS. SOLIDS		✓ LEAD	(.5)
		DISS. SOLIDS		✓ CADMIUM	(.05)
SULFATE				SILVER	
MBAS				SODIUM	
C.O.D.				POTASSIUM	
T.O.C.				BARIUM	
		FIELD D.O.			
		FIELD TEMP			
		FIELD pH			
		FIELD COND.	umho		

FIELD

LABORATORY

11 of 20

1 PM 2-17

LAB NO.

8-81-146

BY

D. Akias

NAME, NOT INITIALS

TYPE SAMPLE

1 WD - PREP

DATE REC'D.

2/17

TIME REC'D.

2 PM

DATE COMPLETED

3/4/81
EXC Cr + 6 3/5/81SUFFOLK COUNTY HEALTH SERVICES LABORATORY
CHEMICAL EXAMINATION OF WATER, SEWAGE, INDUSTRIAL WASTE

NAME OR FIRM

Sew - All Uniform Rental

ADDRESS OR LOCATION

8 Drayton Ave Bayside

POINT OF COLLECTION

cesspool # 1 (Bayer tank)

REMARKS/INSTRUCTIONS

TEST	RESULT	TEST	RESULT $\frac{\text{mg.}}{\text{liter}}$	TEST	RESULT $\frac{\text{mg.}}{\text{liter}}$
CONDUCT	umho	NITRATE-N		✓ COPPER	1.6
✓ pH	—	NITRITE		✓ IRON	34
TEST	RESULT $\frac{\text{m.g.}}{\text{liter}}$	AMMONIA-N		MANGANESE	
ph. ALKALINITY		TKN		✓ CHROMIUM	1.3
T. ALKALINITY		O-PO ₄ -P		✓ NICKEL	.7
CHLORIDE				ZINC	
FLUORIDE				MAGNESIUM	
CYANIDE		TOT. SOLIDS		CALCIUM	
		SUS. SOLIDS		✓ LEAD	.5
SULFATE		DISS. SOLIDS		✓ CADMIUM	.08
MBAS				SILVER	
C.O.D.				SODIUM	
T.O.C.				POTASSIUM	
				BARIUM	
		FIELD D.O.		✓ Cr + 6 INTERFERENCES	
		FIELD TEMP			
		FIELD pH			
		FIELD COND.	umho		26

FIELD

LABORATORY

12420

FIELD NO. 2 P4 2-17LAB NO. 2-81-127BY P. Akras
NAME, NOT INITIALSTYPE SAMPLE WD-FRDATE COL. 2/17/81DATE REC'D. 2/17

E COL. _____

TIME REC'D. 2PMDATE COMPLETED 3/17/81 P-1SUFFOLK COUNTY HEALTH SERVICES LABORATORY
CHEMICAL EXAMINATION OF WATER, SEWAGE, INDUSTRIAL WASTENAME OR FIRM Sew-All UniformADDRESS OR LOCATION 8 Drayton Ave BaysidePOINT OF COLLECTION Cesspool #2 (septic tank)

REMARKS/INSTRUCTIONS _____

TEST	RESULT	TEST	RESULT $\frac{\text{mg.}}{\text{liter}}$	TEST	RESULT $\frac{\text{mg.}}{\text{liter}}$
CONDUCT	umho	NITRATE-N		✓ COPPER	44
pH	—	NITRITE		✓ IRON	1.5×10^3
TEST	RESULT $\frac{\text{m.g.}}{\text{liter}}$	AMMONIA-N		MANGANESE	
ph. ALKALINITY		TKN		✓ CHROMIUM	48
T. ALKALINITY		O-PO ₄ -P		✓ NICKEL	32
CHLORIDE				ZINC	
FLUORIDE				MAGNESIUM	
CYANIDE		TOT. SOLIDS		CALCIUM	
		SUS. SOLIDS		✓ LEAD	20
SULFATE		DISS. SOLIDS		✓ CADMIUM	1.8
MBAS				SILVER	
C.O.D.				SODIUM	
T.O.C.				POTASSIUM	
				BARIUM	
		FIELD D.O.		✓ Cr +6	
		FIELD TEMP			
		FIELD pH			
		FIELD COND.	umho		

FIELD NO. 3PA 2-17
 COLLECTED BY P. Akers
 NAME, NOT INITIALS
 DATE COL. 2/17/81
 TIME COL. _____

LAB NO. 2-81-128
 TYPE SAMPLE IND. PPT
 DATE REC'D. 2/17
 TIME REC'D. 2 PM
 DATE COMPLETED 3/4/81

SUFFOLK COUNTY HEALTH SERVICES LABORATORY
 CHEMICAL EXAMINATION OF WATER, SEWAGE, INDUSTRIAL WASTE

NAME OR FIRM Serv-All Uniform
 ADDRESS OR LOCATION 8 Drayton Ave Brynshar
 POINT OF COLLECTION Cesspool # 3
 MARKS/INSTRUCTIONS _____

TEST	RESULT	TEST	RESULT	TEST	RESULT
CONDUCT	umho	NITRATE-N		COPPER	.4
PH	—	NITRITE		IRON	(5.4)
TEST	RESULT $\frac{\text{m.g.}}{\text{liter}}$	AMMONIA-N		MANGANESE	
ph. ALKALINITY		TKN		CHROMIUM	.06
T. ALKALINITY		O-PO ₄ -P		NICKEL	4.1
CHLORIDE				ZINC	
FLUORIDE				MAGNESIUM	
CYANIDE		TOT. SOLIDS		CALCIUM	
		SUS. SOLIDS		LEAD	(.3)
SULFATE		DISS. SOLIDS		CADMIUM	2.02
NH ₄ S				SILVER	
C.O.D.				SODIUM	
T.O.C.				POTASSIUM	
				BARIUM	
		FIELD D.O.		Cr ⁺⁶	2.2
		FIELD TEMP			
		FIELD pH			
		FIELD COND.	umho		

FIELD NO. 4PA 2-17
 BY P. Thras
 NAME, NOT INITIALS
 DATE COL. 2/17/81
 TIME COL. _____
 NAME COL. _____

LABORATORY 19 of 20
 LAB NO. 2-81-127
 TYPE SAMPLE IND. PEP
 DATE REC'D. 2/17
 TIME REC'D. 5 PM
 DATE COMPLETED 3/4/81

SUFFOLK COUNTY HEALTH SERVICES LABORATORY
 CHEMICAL EXAMINATION OF WATER, SEWAGE, INDUSTRIAL WASTE

NAME OR FIRM Serv - All Uniform
 ADDRESS OR LOCATION 8 Drayton Ave. Bayshore
 POINT OF COLLECTION cesspool #4
 MARKS/INSTRUCTIONS _____

TEST	RESULT	TEST	RESULT mg. liter	TEST	RESULT mg. liter
CONDUCT	umho	NITRATE-N		✓ COPPER	.45
✓ pH	—	NITRITE		✓ IRON	15.0
TEST:	RESULT mg. liter	AMMONIA-N		MANGANESE	
ph. ALKALINITY		TKN		✓ CHROMIUM	.16
T. ALKALINITY		0-PO ₄ -P		✓ NICKEL	.15
CHLORIDE				ZINC	
FLUORIDE				MAGNESIUM	
CYANIDE		TOT. SOLIDS		CALCIUM	
		SUS. SOLIDS		✓ LEAD	4.2
SULFATE		DISS. SOLIDS		✓ CADMIUM	4.02
MBAS				SILVER	
C.O.D.				SODIUM	
T.O.C.				POTASSIUM	
				BARIUM	
		FIELD D.O.		✓ Cr ⁺⁶	4.2
		FIELD TEMP.			
		FIELD pH			
		FIELD COND.	umho		

FIELD NO. 5 P17 2-17
 COL BY P. Akros
 NAME, NOT INITIALS
 DATE COL. 2/17/81
 TIME COL. _____

LAB NO. 2-81-130 1542
 TYPE SAMPLE IND-PRG
 DATE REC'D. 2/17
 TIME REC'D. 2 PM
 DATE COMPLETED 3/4/81 per

SUFFOLK COUNTY HEALTH SERVICES LABORATORY
 CHEMICAL EXAMINATION OF WATER, SEWAGE, INDUSTRIAL WASTE

NAME OR FIRM Sew. All Uniform
 ADDRESS OR LOCATION 8 Drayton Ave Bayshore
 POINT OF COLLECTION cesspool #5
 MARKS/INSTRUCTIONS _____

TEST	RESULT	TEST	RESULT $\frac{\text{mg.}}{\text{liter}}$	TEST	RESULT $\frac{\text{mg.}}{\text{liter}}$
CONDUCT	umho	NITRATE-N		✓ COPPER	.35
✓ pH	—	NITRITE		✓ IRON	5.6
TEST	RESULT $\frac{\text{m.g.}}{\text{liter}}$	AMMONIA-N		MANGANESE	
ph. ALKALINITY	•	TKN		✓ CHROMIUM	.06
T. ALKALINITY		O-PO ₄ -P		✓ NICKEL	4.1
CHLORIDE				ZINC	
FLUORIDE				MAGNESIUM	
CYANIDE		TOT. SOLIDS		CALCIUM	
		SUS. SOLIDS		✓ LEAD	.2
SULFATE		DISS. SOLIDS		✓ CADMIUM	.03
MBAS				SILVER	
C.O.D.				SODIUM	
T.O.C.				POTASSIUM	
				BARIUM	
		FIELD D.O.		✓ Cr +6	4.2
		FIELD TEMP			
		FIELD pH			
		FIELD COND.	umho		

FIELD NO. 6 PA 2-17
 ANALYST BY P. Akers
NAME, NOT INITIALS
 DATE COL. 2/17/81
 TIME COL. _____
 ME COL. _____

LABORATORY 16 of 20
 LAB NO. 2-81-131
 TYPE SAMPLE 100 - PRP
 DATE REC'D. 2/17
 TIME REC'D. 2PM
 DATE COMPLETED 3/4/81

SUFFOLK COUNTY HEALTH SERVICES LABORATORY
 CHEMICAL EXAMINATION OF WATER, SEWAGE, INDUSTRIAL WASTE

NAME OR FIRM Sew - All Uniform
 ADDRESS OR LOCATION 8 Drayton Ave Bayside
 POINT OF COLLECTION cond pool #6
 REMARKS/INSTRUCTIONS _____

TEST	RESULT	TEST	RESULT mg. / liter	TEST	RESULT mg. / liter
CONDUCT	umho	NITRATE-N		✓ COPPER	.54
✓ pH	—	NITRITE		✓ IRON	(6.2)
TEST	RESULT mg. / liter	AMMONIA-N		MANGANESE	
ph. ALKALINITY		TKN		✓ CHROMIUM	.10
T. ALKALINITY		O-PO ₄ -P		✓ NICKEL	4.1
CHLORIDE				ZINC	
FLUORIDE				MAGNESIUM	
CYANIDE		TOT. SOLIDS		CALCIUM	
		SUS. SOLIDS		✓ LEAD	(.3)
SULFATE		DISS. SOLIDS		✓ CADMIUM	1.02
MSAS				SILVER	
C.O.D.				SODIUM	
T.O.C.				POTASSIUM	
				BARIUM	
		FIELD D.O.		✓ Cr ⁺⁶	1.2
		FIELD TEMP			
		FIELD pH			
		FIELD COND.	umho		

FIELD NO. 7 P17-2-17
 BY P. Akraa
 NAME, NOT INITIALS
 DATE COL. 2/17/81
 TIME COL. _____

LAB NO. 2-81-132
 TYPE SAMPLE IND - PPA
 DATE REC'D. 2/17
 TIME REC'D. 2 PM
 DATE COMPLETED 3/4/81

SUFFOLK COUNTY HEALTH SERVICES LABORATORY
 CHEMICAL EXAMINATION OF WATER, SEWAGE, INDUSTRIAL WASTE

NAME OR FIRM Sewer All Uniform
 ADDRESS OR LOCATION 8 Drayton Ave Bayshore
 POINT OF COLLECTION Cesspool #7
 MARKS/INSTRUCTIONS _____

TEST	RESULT	TEST	RESULT	TEST	RESULT
CONDUCT	umho	NITRATE-N		COPPER	.38
pH		NITRITE		IRON	(6.2)
TEST	RESULT $\frac{\text{m.g.}}{\text{liter}}$	AMMONIA-N		MANGANESE	
ph. ALKALINITY		TKN		CHROMIUM	.08
T. ALKALINITY		O-PO ₄ -P		NICKEL	.1
CHLORIDE				ZINC	
FLUORIDE				MAGNESIUM	
CYANIDE		TOT. SOLIDS		CALCIUM	
		SUS. SOLIDS		LEAD	(.3)
SULFATE		DISS. SOLIDS		CADMIUM	(.03)
MBAS				SILVER	
C.O.D.				SODIUM	
T.O.C.				POTASSIUM	
				BARIUM	
		FIELD D.O.		Cr +6	
		FIELD TEMP			
		FIELD pH			
		FIELD COND.	umho		

FIELD NO. 8-PA 2-11
 NAME, NOT INITIALS P. Akros
 DATE 2/17/81

LAB NO. 7-81-135 18 of 20
 TYPE SAMPLE IND - PRP
 DATE REC'VD. 2/17
 TIME REC'VD. 2 PM
 DATE COMPLETED 3/4/81 Pm

SUFFOLK COUNTY HEALTH SERVICES LABORATORY
 CHEMICAL EXAMINATION OF WATER, SEWAGE, INDUSTRIAL WASTE

OR FIRM Sewer - All Uniform
 ADDRESS OR LOCATION 8 Drayton Ave Bayshore
 TYPE OF COLLECTION cesspool #8
 REMARKS/INSTRUCTIONS _____

TEST	RESULT	TEST	RESULT	TEST	RESULT
CONDUCT	umho	NITRATE-N	mg./liter	COPPER	.65
pH	—	NITRITE		IRON	(10.)
TEST	RESULT	AMMONIA-N		MANGANESE	
ALKALINITY		TKN		CHROMIUM	.10
T. ALKALINITY		O-PO ₄ -P		NICKEL	.1
CHLORIDE				ZINC	
FLUORIDE				MAGNESIUM	
CYANIDE		TOT. SOLIDS		CALCIUM	
		SUS. SOLIDS		LEAD	.6
SULFATE		DISS. SOLIDS		CADMIUM	(.06)
MBAS				SILVER	
C.O.D.				SODIUM	
T.O.C.				POTASSIUM	
				BARIUM	
		FIELD D.O.		Gr +6	
		FIELD TEMP			
		FIELD pH			
		FIELD COND.	umho		

FIELD NO. 9 PA 2-17
 NAME, NOT INITIALS P. Akers
 DATE 2/17/81

LAB NO. 2-81-137 19 of 20
 TYPE SAMPLE IND - SPQ
 DATE REC'VD. 2/17
 TIME REC'VD. 2 PM
 DATE COMPLETED 3/4/81 Rm

SUFFOLK COUNTY HEALTH SERVICES LABORATORY
 CHEMICAL EXAMINATION OF WATER, SEWAGE, INDUSTRIAL WASTE

OR FIRM Sew. All Uniform
 ADDRESS OR LOCATION 8 Drayton Ave Bayshore
 DATE OF COLLECTION Cesspool #9
 COMMENTS/INSTRUCTIONS

TEST	RESULT	TEST	RESULT	TEST	RESULT
CONDUCT	umho	NITRATE-N	mg. liter	COPPER	mg. liter
pH	—	NITRITE		IRON	12.1
TEST	RESULT $\frac{m.g.}{liter}$	AMMONIA-N		MANGANESE	
Ph. ALKALINITY	•	TKN		CHROMIUM	.10
T. ALKALINITY		O-PO ₄ -P		NICKEL	.15
CHLORIDE				ZINC	
FLUORIDE				MAGNESIUM	
CYANIDE		TOT. SOLIDS		CALCIUM	
		SUS. SOLIDS		LEAD	.6
SULFATE		DISS. SOLIDS		CADMIUM	.06
MBAS				SILVER	
C.O.D.				SODIUM	
T.O.C.				POTASSIUM	
				BARIUM	
		FIELD D.O.		Cr +6	—
		FIELD TEMP			
		FIELD pH			
		FIELD COND.	umho		

FIELD

LAB NO.

10 PA 2-17

P. Akros

NAME, NOT INITIALS

COL.

2/17/81

OL.

LAB NO.

TYPE SAMPLE

DATE REC'D.

TIME REC'D.

DATE COMPLETED

A-81-135 26 of 20
 IND - PEP
 2/17
 2 PM
 3/4/81 Rja

SUFFOLK COUNTY HEALTH SERVICES LABORATORY
 CHEMICAL EXAMINATION OF WATER, SEWAGE, INDUSTRIAL WASTE

NAME OR FIRM

ADDRESS OR LOCATION

DATE OF COLLECTION

REMARKS/INSTRUCTIONS

Sew - all
 8 Drayton Ave Bayshore
 cesspool #10

TEST	RESULT	TEST	RESULT	TEST	RESULT
CONDUCT	umho	NITRATE-N		✓ COPPER	.44
pH	—	NITRITE		✓ IRON	4.3
TEST	RESULT $\frac{\text{m.g.}}{\text{liter}}$	AMMONIA-N		MANGANESE	
PH. ALKALINITY		TKN		✓ CHROMIUM	.06
T. ALKALINITY		O-PO ₄ -P		✓ NICKEL	4.1
CHLORIDE				ZINC	
FLUORIDE				MAGNESIUM	
CYANIDE		TOT. SOLIDS		CALCIUM	
		SUS. SOLIDS		✓ LEAD	(.3)
SULFATE		DISS. SOLIDS		✓ CADMIUM	.05
MBAS				SILVER	
C.O.D.				SODIUM	
T.O.C.				POTASSIUM	
				BARIUM	
		FIELD D.O.		✓ Cr +6	
		FIELD TEMP			
		FIELD pH			
		FIELD COND.	umho		

NOTICE OF VIOLATION
COUNTY OF SUFFOLK

Appendix 1.1-11

1 of 10



PETER F. COHALAN
SUFFOLK COUNTY EXECUTIVE

DEPARTMENT OF HEALTH SERVICES

Serv - All Uniform Rental Inc.
8 Drayton Avenue
Bay Shore, New York 11706

Date July 29, 1982
SPDES NO. _____
Lab. No. 6-82-183/IW 682017
Field No. LJM 6-16, 3JM 6-16

Gentlemen:

On June 16, 1982 samples of industrial waste were taken from your distribution pool located approximately 20' south of the building. Upon analysis, the following parameters were found in concentrations above the maximum allowed in your SPDES Permit or in groundwater effluent standards:

1.	<u>LJM 6-16</u> Copper	9.2 mg/l	6.	<u>3JM 6-16 (organic)</u> Chloroform	110 ppb.
2.	Iron	60. mg/l	7.	1,1,2 Trichloroethylene	55 ppb.
3.	Nickel	3.5 mg/l	8.	Tetrachloroethylene	160 ppb.
4.	Zinc	20. mg/l	9.	1,2,4 Trimethylbenzene	79 ppb.
5.	Lead	3.6 mg/l	10.	1,3,5 Trimethylbenzene	53 ppb.
	Cadmium	. 3 mg/l			

Please be advised that these unsatisfactory conditions constitute violations of the N.Y.S. Environmental Conservation Law and/or the Suffolk County Sanitary Code. Please be further advised that the discharge of any water from an industrial process to the groundwater of Suffolk County without having first obtained a State Pollutant Discharge Elimination System (SPDES) Permit for that discharge is also a violation of the N.Y.S. E.C.L. and/or the Suffolk County Sanitary Code, Article 12.

If you do not already possess a valid SPDES Permit for the above discharge, then you should apply immediately through this office for said permit.

Since the above-noted violations may subject you to legal action, it is expected that these violations cease immediately. Violations of the Suffolk County Sanitary Code are subject to the imposition of a civil penalty of up to Five Hundred (\$500) dollars per violation. E.C.L. violations are also subject to a civil penalty. A reinsection in the near future will determine your compliance in this matter.

Very truly yours,

Environmental Pollution Control

(SEE REVERSE SIDE FOR STANDARDS)

CHEMICAL EXAMINATION OF WATER, SEWAGE, INDUSTRIAL WASTE

16-247: 218

LD NO. 15M6-16 LAB NO. 6-82-183 DATE COMPLETED 6/22/82

NAME OR FIRM SERV - ALL UNIFORM
ADDRESS OR LOCATION F DRAYTON BAY SHORE N.Y.
POINT OF COLLECTION POOL #1 (SEE SKETCH)
REMARKS/INSTRUCTIONS

TEST	RESULTS	TEST	RESULTS	TEST	RESULTS
PH (LAB)		TOTAL SOLIDS	Mg/l	COPPER	9.2 Mg/l
FLORIDE	Mg/l	SUSPENDED SOLIDS		IRON	6x10 ⁶
CYANIDE		DISSOLVED SOLIDS		MANGANESE	
BAS				CHROMIUM-TOT	4.4
OD				NICKEL	3.5
OC				ZINC	2x10 ⁶
				LEAD	3.6
				CADMIUM	3
ITRATE-N				SILVER	.08
ITRITE				CHROMIUM-+6	
MMONIA-N					
KN		PH (FIELD)	7		
		TEMP. (FIELD)			

METHOD OF PRESERVATION ☒ HNO₃ TO pH < 2 ☐ COOL 4°C

CUSTODY OF SAMPLE

URING TRANSPORT OF THE SAMPLE FROM SAMPLING SITE TO LABORATORY, THE
AIN OF CUSTODY MUST BE UNBROKEN. GENERALLY THIS WILL REQUIRE THAT THE
MPLE BE DELIVERED BY THE SAMPLE COLLECTOR OR HIS DESIGNATED REPRESENTATIVE WHO WILL SIGN FOR THE RECEIPT, INTEGRITY AND TRANSFER OF THE SAMPLE
URING SHIPMENT.

	NAME	AFFILIATION	DATE - TIME	TO	DATE - TIME
COLLECTED BY	J. HION	SCDIX	6/16/82 10:20		
POSSESSION BY	J. HION	SCDIX	6/16/82 10:20	6/16/82 12:00	
POSSESSION BY			DATE - TIME	TO	DATE - TIME
RECEIVED LAB BY	G. yalher	Env. Lab	6/16/82 12:15		
POSSESSION BY			DATE - TIME	TO	DATE - TIME
POSSESSION BY			DATE - TIME	TO	DATE - TIME

J No. TW-682017
Field No. 3517 6-10
Date 6/16/82
Time 10:20
Col. By S. H. 1011
(Name not initials)

Received L 6-16-82 11:45 AM
Public Water
Private Water
Other INDUSTRIAL
Date Completed 7-13-82
Examined By W. R. F. J.

3 of 10

SUFFOLK COUNTY DEPARTMENT OF HEALTH SERVICES
DIVISION OF MEDICAL LEGAL INVESTIGATIONS & FORENSIC SCIENCES
PUBLIC HEALTH LABORATORY

TRACE ORGANIC ANALYSIS OF WATER

Name SERV-ALL UNIFORM Owner or District
Location 8 DRAYTON BAY SHORE, N.Y.
Point of Collection POOL #1 (SEE SKETCH)
Remarks: CLEANS INDUSTRIAL UNIFORM

Compound	ppb	Compound	ppb
1,1,2 Trifluoro trichloroethane.....	<4	306 Vinyl Chloride.....	
0 Chloroform.....	(110)	250 Benzene.....	<10
1,1,1 Trichloroethane.....	<2	251 Toluene.....	<10
Carbon Tetrachloride.....	<1	254 o-Xylene.....	<10
1,1,2 Trichloroethylene....	(55)	252 m-Xylene.....	<10
Chlorodibromomethane.....	<2	253 p-Xylene.....	<10
1 Tetrachloroethylene.....	(160)	255 Xylene(s).....	—
Bromoform.....	<5	258 Chlorobenzene.....	<12
Bromodichloromethane.....	4	259 Ethylbenzene.....	<10
		257 Bromobenzene.....	<16
		o-Chlorotoluene.....	<12
		m-Chlorotoluene.....	<12
		p-Chlorotoluene.....	<12
		Chlorotoluene(s).....	—
		m-Dichlorobenzene.....	<10
		412 o-Dichlorobenzene.....	<10
		1,2,4 Trimethyl Benzene	(29)
		1,3,5 Trimethyl Benzene	(53)?

4 of 10

CHEMICAL EXAMINATION OF WATER, SEWAGE, INDUSTRIAL WASTE

18-247-2/5

LD NO. 15116-16 LAB NO. 6-82-183 DATE COMPLETED 6/22/82

NAME OR FIRM SERV - ALL UNIFORM
 ADDRESS OR LOCATION F DRAYTON BAY SHORE N.Y.
 POINT OF COLLECTION POOL #1 (SEE SKETCH)
 REMARKS/INSTRUCTIONS

TEST	RESULTS	TEST	RESULTS	TEST	RESULTS
H (LAB)		TOTAL SOLIDS	Mg/l	COPPER	9.2 Mg/l
HLORIDE	Mg/l	SUSPENDED SOLIDS		IRON	6x10 ¹
YANIDE		DISSOLVED SOLIDS		MANGANESE	
BAS				CHROMIUM-TOT	4.4
OD				NICKEL	3.5
OC				ZINC	2x10 ¹
				LEAD	3.6
				CADMIUM	3
ITRATE-N				SILVER	.08
ITRITE				CHROMIUM-+6	
MMONIA-N					
KN		PH (FIELD)	7		
		TEMP. (FIELD)			

METHOD OF PRESERVATION ☒ HNO₃ TO pH < 2 ☐ COOL 4°C

CUSTODY OF SAMPLE

URING TRANSPORT OF THE SAMPLE FROM SAMPLING SITE TO LABORATORY, THE
 AIN OF CUSTODY MUST BE UNBROKEN. GENERALLY THIS WILL REQUIRE THAT THE
 APLE BE DELIVERED BY THE SAMPLE COLLECTOR OR HIS DESIGNATED REPRESENTATIVE
 WHO WILL SIGN FOR THE RECEIPT, INTEGRITY AND TRANSFER OF THE SAMPLE
 RING SHIPMENT.

	NAME	AFFILIATION	DATE - TIME	TO	DATE - TIME
COLLECTED BY	J. 1710N	SCDIK	6/16/82		10:20
POSSESSION BY	J. 1710N	SCDIK	6/16/82	DATE - TIME	6/16/82 12:20
POSSESSION BY			DATE - TIME	TO	DATE - TIME
RECEIVED LAB BY	G. Mathers	Env. Lab	6/16/82	DATE - TIME	12:15
POSSESSION BY			DATE - TIME	TO	DATE - TIME
POSSESSION BY			DATE - TIME	TO	DATE - TIME

5 of 10

SUFFOLK COUNTY HEALTH SERVICES LABORATORY
CHEMICAL EXAMINATION OF WATER, SEWAGE, INDUSTRIAL WASTE

18-247-2182

FIELD NO. 7 SMH-5 LAB NO. 11-82-68 DATE COMPLETED 11/5/82

NAME OR FIRM SEPV-ALL UNIFORM
ADDRESS OR LOCATION 8 DRAYTON AVE, BAY SHORE, NY
POINT OF COLLECTION LEACHING POOL 167
REMARKS/INSTRUCTIONS

TEST	RESULTS	TEST	RESULTS	TEST	RESULTS
pH (LAB)		TOTAL SOLIDS	Mg/l	COPPER	.8 Mg/l
CHLORIDE	Mg/l	SUSPENDED SOLIDS		IRON	12 (1.2 x 10)
CYANIDE		DISSOLVED SOLIDS		MANGANESE	
MBAS				CHROMIUM-TOT	.08
COD				NICKEL	.2
TOC				ZINC	3-4
				LEAD	.6
				CADMIUM	.08
NITRATE-N				SILVER	<.02
NITRITE				CHROMIUM-+6	
AMMONIA-N					
TKN		pH (FIELD)	7.0		
		TEMP. (FIELD)			

METHOD OF PRESERVATION ☒ HNO₃ TO pH < 2 ☐ COOL 4°C

CUSTODY OF SAMPLE

DURING TRANSPORT OF THE SAMPLE FROM SAMPLING SITE TO LABORATORY, THE CHAIN OF CUSTODY MUST BE UNBROKEN. GENERALLY THIS WILL REQUIRE THAT THE SAMPLE BE DELIVERED BY THE SAMPLE COLLECTOR OR HIS DESIGNATED REPRESENTATIVE WHO WILL SIGN FOR THE RECEIPT, INTEGRITY AND TRANSFER OF THE SAMPLE DURING SHIPMENT.

	NAME	AFFILIATION	DATE	TIME
1. COLLECTED BY	J. MION	SCDHK	11/5/82	11:30A
2. POSSESSION BY			DATE - TIME	TO DATE - TIME
3. POSSESSION BY			DATE - TIME	TO DATE - TIME
4. RECEIVED LAB BY	h-m		11/8/82 1PM	
5. POSSESSION BY			DATE - TIME	TO DATE - TIME

39.

SUFFOLK COUNTY HEALTH SERVICES LABORATORY
CHEMICAL EXAMINATION OF WATER, SEWAGE, INDUSTRIAL WASTE

5410

18-247: 2182

FIELD NO. 25711-5 LAB NO. 11-82-65 DATE COMPLETED 11/5/82

NAME OR FIRM SERV-ALL
ADDRESS OR LOCATION 8. DRAYTON, BAY SHORE
POINT OF COLLECTION POOL (LEACHING) #2
REMARKS/INSTRUCTIONS

TEST	RESULTS	TEST	RESULTS	TEST	RESULTS
PH (LAB)		TOTAL SOLIDS	Mg/l	COPPER	1.1 Mg/l
CHLORIDE	Mg/l	SUSPENDED SOLIDS		IRON	40 (4x10)
CYANIDE		DISSOLVED SOLIDS		MANGANESE	
MBAS				CHROMIUM-TOT	.15
COD				NICKEL	.25
TOC				ZINC	4.
				LEAD	1.
				CADMIUM	.1
NITRATE-N				SILVER	<.02
NITRITE				CHROMIUM-+6	
AMMONIA-N					
TKN		PH (FIELD)	7.0		
		TEMP. (FIELD)			

METHOD OF PRESERVATION ☒ HNO₃ TO pH < 2 ☐ COOL 4°C

CUSTODY OF SAMPLE

DURING TRANSPORT OF THE SAMPLE FROM SAMPLING SITE TO LABORATORY, THE CHAIN OF CUSTODY MUST BE UNBROKEN. GENERALLY THIS WILL REQUIRE THAT THE SAMPLE BE DELIVERED BY THE SAMPLE COLLECTOR OR HIS DESIGNATED REPRESENTATIVE WHO WILL SIGN FOR THE RECEIPT, INTEGRITY AND TRANSFER OF THE SAMPLE DURING SHIPMENT.

1. COLLECTED BY	<u>J. MION</u>	<u>SCDH</u>	<u>11/5/82</u>	<u>1130AM</u>
2. POSSESSION BY			DATE - TIME	TO DATE - TIME
3. POSSESSION BY			DATE - TIME	TO DATE - TIME
4. RECEIVED LAB BY	<u>S.M.</u>		<u>11/5/82 1PM</u>	
5. POSSESSION BY			DATE - TIME	TO DATE - TIME
6. POSSESSION BY			DATE - TIME	TO DATE - TIME

SUFFOLK COUNTY HEALTH SERVICES LABORATORY
CHEMICAL EXAMINATION OF WATER, SEWAGE, INDUSTRIAL WASTE

18-247: 2/82

7 of 10

NO. 35711-5 LAB NO. 11-82-66 DATE COMPLETED 11/5/82

OR FIRM SEDEV-ALL
ADDRESS OR LOCATION 8 DRAYTON AVE, BAY SHORE
POINT OF COLLECTION LEACHING POOL #3 (FARTHEST SOUTHEAST)
MARKS/INSTRUCTIONS

TEST	RESULTS	TEST	RESULTS	TEST	RESULTS
(LAB)		TOTAL SOLIDS	Mg/l	COPPER	1.1 Mg/l
CHLORIDE	Mg/l	SUSPENDED SOLIDS		IRON	30
CYANIDE		DISSOLVED SOLIDS		MANGANESE	
AMBIAS				CHROMIUM-TOT	.15
OD				NICKEL	.25
TOC				ZINC	3.5
				LEAD	.8
				CADMIUM	.1
				SILVER	.04
				CHROMIUM-+6	
ITRATE-N					
NITRITE					
AMMONIA-N					
TKN		PH (FIELD)	7.0		
		TEMP. (FIELD)			

METHOD OF PRESERVATION ☒ HNO₃ TO pH < 2 ☐ COOL 4°C

CUSTODY OF SAMPLE

DURING TRANSPORT OF THE SAMPLE FROM SAMPLING SITE TO LABORATORY, THE CHAIN OF CUSTODY MUST BE UNBROKEN. GENERALLY THIS WILL REQUIRE THAT THE SAMPLE BE DELIVERED BY THE SAMPLE COLLECTOR OR HIS DESIGNATED REPRESENTATIVE WHO WILL SIGN FOR THE RECEIPT, INTEGRITY AND TRANSFER OF THE SAMPLE DURING SHIPMENT.

COLLECTED BY J. HADON AFFILIATION SEDAV DATE 11/5/82 TIME 11:30 AM
POSSESSION BY B.M.
POSSESSION BY
RECEIVED LAB BY
POSSESSION BY
POSSESSION BY

SUFFOLK COUNTY HEALTH SERVICES LABORATORY
CHEMICAL EXAMINATION OF WATER, SEWAGE, INDUSTRIAL WASTE

18-247: 2/82

8 of 10

LAB NO. 85711-5 LAB NO. 11-82-69 DATE COMPLETED 11/5/82

NAME OR FIRM SEVU-ALL UNIFORMS
 ADDRESS OR LOCATION 8 DRAVTON AVE, DAY SHORE
 POINT OF COLLECTION LEACHING POOL #8
 MARKS/INSTRUCTIONS

TEST	RESULTS	TEST	RESULTS	TEST	RESULTS
H(LAB)		TOTAL SOLIDS	Mg/l	COPPER	.13 Mg/l
CHLORIDE		SUSPENDED SOLIDS		IRON	(2.9)
CYANIDE		DISSOLVED SOLIDS		MANGANESE	
MBAS				CHROMIUM-TOT	<.02
COD				NICKEL	.1
TOC				ZINC	1.1
				LEAD	<.2
				CADMIUM	<.02
				SILVER	<.02
NITRATE-N				CHROMIUM-+6	
NITRITE					
AMMONIA-N					
TKN		PH (FIELD)	7.0		0.9
		TEMP. (FIELD)			

METHOD OF PRESERVATION ☒ HNO₃ TO pH < 2 ☐ COOL 4°C

CUSTODY OF SAMPLE

DURING TRANSPORT OF THE SAMPLE FROM SAMPLING SITE TO LABORATORY, THE CHAIN OF CUSTODY MUST BE UNBROKEN. GENERALLY THIS WILL REQUIRE THAT THE SAMPLE BE DELIVERED BY THE SAMPLE COLLECTOR OR HIS DESIGNATED REPRESENTATIVE WHO WILL SIGN FOR THE RECEIPT, INTEGRITY AND TRANSFER OF THE SAMPLE DURING SHIPMENT.

1. COLLECTED BY	<u>J. MION</u>	AFFILIATION	<u>SCDH</u>	DATE	<u>11/5/82</u>	TIME	<u>11:30 AM</u>
2. POSSESSION BY				DATE - TIME	TO	DATE - TIME	
3. POSSESSION BY				DATE - TIME	TO	DATE - TIME	
4. RECEIVED LAB BY	<u>B.M.</u>			DATE	<u>11/8/82</u>	TIME	<u>10 PM</u>
5. POSSESSION BY				DATE - TIME	TO	DATE - TIME	
				DATE - TIME	TO	DATE - TIME	

SUFFOLK COUNTY HEALTH SERVICES LABORATORY 9 & 10
 CHEMICAL EXAMINATION OF WATER, SEWAGE, INDUSTRIAL WASTE 19-247-2182

FIELD NO. 6 SM11-5 LAB NO. 11-82-67 DATE COMPLETED 11/10/82
 EXCEPT 26

NAME OR FIRM SERV-ALL UNIFORM
 ADDRESS OR LOCATION 8 DAYTON AVE, BAY SHORE, NY
 POINT OF COLLECTION LEACHING POOL #6
 REMARKS/INSTRUCTIONS

TEST	RESULTS	TEST	RESULTS	TEST	RESULTS
PH (LAB)		TOTAL SOLIDS	Mg/l	COPPER	13 (1.3 x 10 ⁻¹)
CHLORIDE	Mg/l	SUSPENDED SOLIDS		IRON	170 (1.7 x 10 ²)
CYANIDE		DISSOLVED SOLIDS		MANGANESE	
MBAS				CHROMIUM-TOT	4.3
COD				NICKEL	3.3
TOC				ZINC	3.6 x 10 ¹
				LEAD	6.2
				CADMIUM	6
NITRATE-N				SILVER	13
NITRITE				CHROMIUM-16	
AMMONIA-N					
TKN		PH (FIELD)	7.0		
		TEMP. (FIELD)			

METHOD OF PRESERVATION ☒ HNO₃ TO pH < 2 ☐ COOL 4°C

CUSTODY OF SAMPLE

DURING TRANSPORT OF THE SAMPLE FROM SAMPLING SITE TO LABORATORY, THE CHAIN OF CUSTODY MUST BE UNBROKEN. GENERALLY THIS WILL REQUIRE THAT THE SAMPLE BE DELIVERED BY THE SAMPLE COLLECTOR OR HIS DESIGNATED REPRESENTATIVE WHO WILL SIGN FOR THE RECEIPT, INTEGRITY AND TRANSFER OF THE SAMPLE DURING SHIPMENT.

1. COLLECTED BY J. MION AFFILIATION SCDP DATE 11/5/82 TIME 11:30 AM
 2. POSSESSION BY _____
 3. POSSESSION BY _____
 4. RECEIVED LAB BY h.m DATE 11/8/82 TIME 1 PM
 5. POSSESSION BY _____
 6. POSSESSION BY _____

Lab No. 11-4-82
 Field No. 11-4-82
 Date 11-17-82
 Time 4 PM
 Col. By J. M. ION
 (Name not Initials)

Received in Lab. 11-4-82 5:30 PM of 10
 Public Water _____
 Private Water _____
 Other _____
 Date Completed 11-17-82
 Examined By KH FB JL

SUFFOLK COUNTY DEPARTMENT OF HEALTH SERVICES
 DIVISION OF MEDICAL LEGAL INVESTIGATIONS & FORENSIC SCIENCES
 PUBLIC HEALTH LABORATORY

TRACE ORGANIC ANALYSIS OF WATER

Name SERV-ALL UNIFORM Owner or District _____
 Location R DAYTON AVE, BAY SHORE, N.Y.
 Point of Collection STORMY DRAIN
 Remarks: USES PEXX VOH NO GC/MS DATA

Compound	ppb	Compound	ppb
205 Methylene Chloride.....		250 Benzene.....	<50
20 Bromochloromethane.....		251 Toluene.....	<50
23 1,1 Dichloroethane.....		254 o-Xylene.....	<50
209 Trans Dichloroethylene.....		252 m-Xylene.....	<50
20 Chloroform.....	45	253 p-Xylene.....	<50
224 1,2 Dichloroethane.....		255 Xylene (s).....	<60
21 1,1,1 Trichloroethane.....	42	258 Chlorobenzene.....	<50
304 Carbon Tetrachloride.....	41	Ethylbenzene.....	<50
94 1-Bromo-2-Chloroethane.....		Bromobenzene.....	<80
405 1,2 Dichloropropane.....		o-Chlorotoluene.....	<60
10 1,1,2 Trichloroethylene.....	13	m-Chlorotoluene.....	<60
303 Chlorodibromomethane.....	2	p-Chlorotoluene.....	<60
93 1,2 Dibromoethane.....		265 Chlorotoluene (s).....	<70
2-Bromo-1-Chloropropane.....		415 m-Dichlorobenzene.....	<70
01 Bromoform.....	45	412 o-Dichlorobenzene.....	
11 Tetrachloroethylene.....	4	413 p-Dichlorobenzene.....	230
Cis-Dichloroethylene.....		Diethylbenzene.....	180
Freon 113.....	44	1,2,4 Trimethylbenzene.....	160
Dibromomethane.....		1,3,5, Trimethylbenzene.....	
1,1 Dichloroethylene.....		2,3 Dichloropropene.....	<5
302 Bromodichloromethane.....	3	1,1,2 Trichloroethane.....	
		1,1,1,2 Tetrachloroethane.....	
		1,2,2,3 Tetrachloropropane.....	<3

COUNTY OF SUFFOLK
DEPARTMENT OF HEALTH SERVICES

.....
In the Matter of the Alleged
Violation of Article 12 and VB
of the Suffolk County Sanitary Code
by

Serv-All Uniform Rental Corp.
8 Drayton Avenue
Bay Shore, NY 11706

Respondent.
.....

ORDER ON CONSENT
NO. IW 82-69

DATE: November 5, 1982

GENERAL PROVISIONS

This Department alleges that the above-named Respondent has failed to comply with the provisions of the Suffolk County Sanitary Code as specified below. Because of such alleged non-compliance, the above-named Respondent consents and agrees to the issuance of this Order on Consent, and agrees to be bound by the terms, conditions and provisions stated herein.

Respondent understands that by entering into the Order on Consent with the Department, he is affirmatively and voluntarily waiving his right to a formal adjudicatory proceeding with respect to the matters herein addressed. Although the Department will not pursue further enforcement action with respect to the specific alleged violations of law set forth below if the above-named Respondent enters into this Order and abides by its terms, Respondent understands that the Department is not agreeing to forbearance from pursuing enforcement action regarding alleged violations not addressed by this Order. Moreover, Respondent understands that notwithstanding his execution of this Order on Consent, his failure to strictly comply with all of the terms, conditions and provisions herein contained will revive the Department's rights regarding the violations alleged as set forth below subject to a set-off for any penalties already paid pursuant to this Order on Consent. Furthermore, the Respondent is hereby advised that this Order on Consent, duly executed by the Respondent's agent and the Commissioner or his duly authorized representative has the force and effect of a Commissioner's Order, the violation of which is subject to penalties as provided in Section 218 of Article 2 of the Suffolk County Sanitary Code.

A modification of any of the provisions of this Order on Consent may be obtained by a timely written request demonstrating good and sufficient cause for the change or extension requested. No modification of this Order shall be effective unless and until it is specifically set forth in writing by the Department.

SPECIFICATION OF ALLEGED VIOLATIONS

It is alleged that the Respondent above-named failed to comply with the following provisions of the Suffolk County Sanitary Code as indicated below:

On 6/16/82 you did discharge toxic or hazardous materials (solvents and heavy metals) which exceeded New York State Discharge Standards and Section 1205 (a) (6) of Article 10.

On 8/5/82 and 11/25/81 you did permit sewage and/or other offensive material to discharge on to the surface of the ground in violation of Article VB.

SPECIFIC TERMS AND CONDITIONS

In satisfaction of the above-named Respondent's alleged violations of the Suffolk County Sanitary Code, the Respondent agrees to the entering and issuance of this Order of the Commissioner of the Suffolk County Department of Health Services, and the Respondent agrees to be bound by the terms and conditions following as well as by the above General Provisions.

1. ~~By~~ Immediately, Respondent shall have ceased all discharge of toxic or hazardous materials from Respondent's facility and thereafter to continue abatement of discharge unless and until:

a. a valid New York State Pollutant Discharge Elimination Systems (SPDES) Permit has been issued for such discharge, and,

b. Respondent's industrial discharge conforms to the discharge standards promulgated in the New York State Environmental Conservation Law and pursuant to any permit issued therefrom.

1a. Toxic or hazardous materials as referred to herein are defined in Article 12, Section 1203(k) of the Suffolk County Sanitary Code as any substance, solution or mixture, thereof which because of its quality, concentration, physical chemical or infectious characteristics may present a potential hazard to human health or drinking water supply quality if discharged to the land or waters of Suffolk County. This includes but is not limited to the list of hazardous substances found in Part 116, Title 40 of the Code of Federal Regulations, acids and alkalies beyond the pH range of 6.5 - 8.5, heavy metal wastes and solutions, petroleum products including fuels and waste oil, organic solvents and any solid material which if exposed to water will partially dissolve forming a toxic or hazardous liquid.

Date of
Compliance

SPECIFIC TERMS AND CONDITIONS
(continued)

MARCH 4, 1983

2. By January 4, 1982 the Respondent shall have submitted its "updated" engineering report. This report shall accurately detail the Respondent's industrial processes and the discharge points for its industrial waste. This report shall include a diagram of all leaching pools and interconnecting piping at the site. This report shall also include an analytical report listing all chemical products used at the Respondent's facility.

3. If upon subsequent sampling of the contents of the leaching pools at the Respondent's facility it is determined, by the department, that excessive levels of toxic or hazardous materials exist in any of the pools, then the Respondent agrees to have the contaminated pool(s) pumped out and cleaned.

3a. The aforementioned clean out of any contaminated pools is to be performed within forty-five (45) days of department written notification to the Respondent of the need for such clean out. The clean out of any contaminated pools is to be performed by an industrial waste scavenger licensed therefor by the New York State Department of Environmental Conservation.

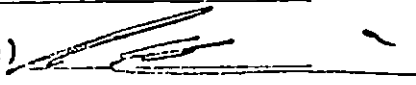
4. The Respondent agrees to maintain its hi-level alarm system in good operating order so as to help prevent its leaching pool system from overflowing on to the surface of the ground.

5. That in satisfaction of the alleged violations herein, in addition to the above terms, provisions and conditions, Respondent agrees to pay a civil penalty of Five Hundred (\$500) Dollars, but that Two Hundred-Fifty (\$250) Dollars of the civil penalty shall be suspended and ultimately discharged on November 4, 1983 contingent upon Respondent's compliance with the terms, conditions and provisions of this Order on Consent. The remaining Two Hundred-Fifty (\$250) Dollar portion of the civil penalty shall be paid to the Department of Health Services and shall be remitted with the return of this Order on Consent duly executed (signed and notarized) by the Respondent.

6. The Respondent's action of entering into this Order on Consent does not constitute an admission of guilt with regard to any of the department violations alleged herein.

CONSENT BY RESPONDENT

The Respondent herein named acknowledges the authority and jurisdiction of the Commissioner of the Suffolk County Department of Health Services to issue the foregoing Order on Consent, and Respondent voluntarily waives public hearing in this matter and agrees to be bound by the terms, conditions and provisions of this Order of the Commissioner.

Dated Jan. 6, 1983Respondent SERV-ALL UNIFORM RENTAL CORP.By: (signature) (printed) RALPH COLANTUONITitle President

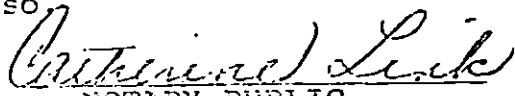
STATE OF NEW YORK)

) SS.: .

COUNTY OF SUFFOLK)

On the 6th day of January, 1983, before me personally came RALPH COLANTUONI to me known, who being duly sworn, deposed and said that he resides at 278 River Road, Smithtown, New York that he is the President of Respondent corporation, and that he signed his name as authorized by said corporation with full authority to do so.

CATHERINE LINK
NOTARY PUBLIC, State of New York
Suffolk County No. 52-2370725
Com. Expires March 30, 1983

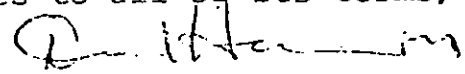

NOTARY PUBLIC

CONSENT BY COMMISSIONER

The Commissioner of the Suffolk County Department of Health Services agrees to waive further administrative enforcement action against the Respondent named herein, and the Commissioner agrees to accept the Respondent's consent to the entry and issuance of this Order in full satisfaction of the Department's allegations herein listed, PROVIDED THAT the Respondent duly executes this Order and strictly adheres to all of its terms, conditions and provisions.

Dated: 1/21/83

Hauppauge, New York


David Harris, M.D., M.P.H.
Commissioner
Suffolk County Department
of Health Services

By:

W.C. Roberts

Oct. 11, 1983

Peter Akras

SERV-ALL UNIFORM RENTAL CORP.
LEGAL ACTIONS

A review of the record shows that 2 separate legal actions were brought against the subject firm - one by N.Y.S.D.E.C. and one by S.C.D.H.S.

On 8/26/80 a hearing was held by N.Y.S.D.E.C. for failure to obtain a SPDES permit for their washwater discharge. The order on consent # 1-0674 was signed on 11/18/80 by Ralph Colantuoni, Pres. of Serv-All. The firm complied with all the conditions of the order including payment of a \$500 civil penalty, submission of an engineering report, sealing of all floor drains, pumping out of contaminated pools and installation of a high level alarm system.

The pump-out and cleaning of all 8 pools was observed by the S.C.D.H.S. on 3/27/81. Al Aparo Cesspool Service was used rather than an industrial waste scavenger because of the relatively low concentrations of heavy metals in the pools (iron, lead and cadmium). The samples were not analyzed for organic solvents.

The N.Y.S.D.E.C. order on consent did not specify submission of a SPDES permit application. However, Burton and Hand submitted an application for Serv-All on 6/11/81 which was re-submitted on 10/12/81. As of this date the D.E.C. has not acted on the permit application.

On 11/4/82 an informal hearing was held by S.C.D.H.S. for discharge of metals and solvents in excess of N.Y.S. discharge standards and for having overflowing cesspools. The order on consent (IW 82-69) was signed by Serv-All on 1/6/83 and a \$250 civil penalty was paid with \$250 suspended contingent upon compliance with the order.

The consent order stipulated the following terms and conditions:

1. Cease all discharge of industrial waste until a valid SPDES permit is obtained.
2. Submit an updated engineering report describing industrial processes and discharges.
3. Pump and clean all pools found to be contaminated by a licensed industrial waste scavenger.
4. Repair high level alarm system to warn of impending overflow of pools.

In anticipation of the pump-out requirement in the consent order, Serv-All's consulting engineer had 2 pools pumped and cleaned by N.W.D. on 11/1/82. A total of 17 cubic yards of sludge was removed.

On 12/30/82 C.P.C. pumped out 1400 gallons of contaminated water from a storm drain at Serv-All and 800 gallons of sludge per Ken Mitchko of C.P.C. On 1/18/83 C.P.C. pumped out 24 drums of sludge from a third cesspool. The clean-out on these dates was observed by S.C.D.A.S.

An updated engineering report was submitted by Burton and hand on 3/2/83 in accordance with the consent order. The Department reviewed the report and sent comments to N.Y.S.D.E.C. on 3/23/83. As of this date, the D.E.C. has not issued a SPDES permit.

On 5/2/83 S.C.D.A.S. notified Serv-All that all items on the Department's consent order had been satisfied. Results of samples taken from their pools on 9/29/83 and 10/5/83 may indicate the need for further legal action and/or clean-out.

Peter Akras
Ph/rt
cc: D. Gobbi

1 of 1

12/30/82 - BS. - Observed pump out of ~~sewage~~ ~~at~~ ~~rear~~ of
Serv-All Cleaners. Operation started at 10¹⁵ by Chemical
Pollution Control in Bay Shore. Contents pumped out: 1300 gallons
of contaminated water, 3-4 drums (55-gal) of solid black sludge.
Approximately 4' of black sludge remaining at bottom of SD #1. According
to Ken Mitcheke (supervisor in charge of scene from Chemical Pollution Control),
they will ^{only} stem pressure the walls and let the remaining wet sludge
dry at this time. He will return in February '83 and then take the
remaining now dried up sludge out. He also claims that being it's a sewer drain
with no pipe leading to it, the possibility of someone dumping ^{residual}
waste many years ago into SD #1 is very strong. Spoke with the owner
of Serv-All, Mr. Ralph Calanturni, and he claims no knowledge of anything.
Mr. Ken Mitcheke stated that the liquid waste is to go to ERW in
Connetquot and the solid waste in drums to SEACONST in Buffalo.

SEKV - ALL UNIFORM, 8 DAYTON AVE, RAY SHOOTING

3/2/83, 9:30 AM. ARRIVED TO INSPECT FOR COMPLIANCE WITH CONSENT ORDER OF 1/6/83 & TO SAMPLE.

1) SEKV - ALL IS STILL DISCHARGING - THE ONLY DIFFERENCE SEEMS TO BE A NEW SEPTIC TANK (#10 ON SKETCH) & THE ABANDONMENT OF POOLS #1, 2, 3, 4, 5, 7 & 8. I WAS TOLD THESE WERE "CAPPED OFF" - WHAT THIS ACTUALLY MEANS IS OPEN TO CONJECTURE. WE DID FIND POOLS #1, 3 & 7 MOISTURE - #7 WAS TRAY OF LIQUID BUT A HEAVY CAKE OF GREYISH-WHITE MATERIAL - WAS OBSERVED ON BOTTOM, #3 HAD LIQUID IN IT & WAS SAMPLED.

NOTES: ALL THE OTHERS OF THE SUPPOSED ABANDONED POOLS (#1, 2, 4, 5 & 8) WERE CEMENTED SHUT (COVER CEMENTED TO TOP RIMS).

2) I BELIEVE TWO POOLS WERE PUMPED / CLEANED - ONE OF OUR INSPECTORS WITNESSED EVIDENCE. IT'S NOT CLEAR TO ME WHICH ONES THEY WERE.

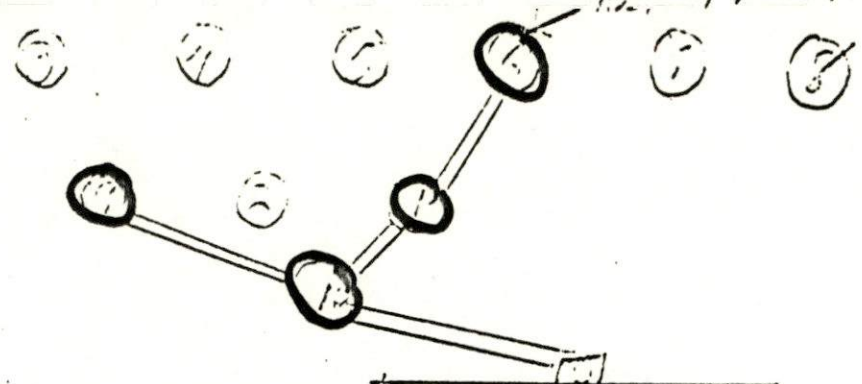
3) POOLS #1 & 10 (SEPTIC TANK) & #3 WERE SAMPLED FOR ORGANIC & METAL - FOUND 5% FINE VETAL ONLY. SAMPLES WERE SPLIT WITH SAND / (VOLU-METRIC LAB).

4) HAD BUDDY (WORKER AT SEKV - ALL) ACTIVATE PUMP IN #6 POOL WHILE GARY C. LISTENED INSIDE. PUMP SEEMS TO BE FUNCTIONAL.

NOTES: SEKV - ALL HAS INSTALLED A HIGH FENCE IN DRIVEWAY NOW.

PREVIOUS DRAWINGS
 IN ADDITION OF #15 9 (NEW)
 (ENTIRE)
 (NEW SECTION TANK)
 (NEW)
 (NEW)
 (NEW)

R. KIRMISS
 &
 SONS.
 #12



SERV - ALL
 RENTAL UNIFORM
 #8

SERV ALL

FIFTH AVE. (S)

DRAYTON AVE.



- NEW SECTION TANK (OLD WAS 7' IN DIA. PREVIOUS)
 (SKETCHES) WAS SECTION
 1, 6, 7 - I'M TOLD ARE OLD LEACHING POOLS NOW,
 2, 3, 4, 5, 7, 8 - SUPPOSEDLY CAPPED OFF - IN FACT, ON THIS
 DAY CONCRETE TOPS ON #15 2, 4, 5 & 8 WERE
 ACTUALLY CONSTRUCTED.

SERV - ALL UNIFORM
 & DRAYTON AVE.
 (NEW SECTION TANK)
 3/2/83 CMC

FIELD NO. 3/2/83 12:05 PM

ANALYZED BY VU

SUFFOLK COUNTY DEPARTMENT OF HEALTH SERVICES
DIVISION OF MEDICAL LEGAL INVESTIGATIONS & FORENSIC SCIENCES
PUBLIC HEALTH LABORATORY

TRACE ORGANIC ANALYSIS OF INDUSTRIAL WASTE

323
5116
Results mailed
on 3/2/83
DG

Name SEPV - ALL UNIFORM
Location 8 DRAVTON AVE, BAY SHORE, N.Y.
Point of Collection NEW SEPTIC TANK (#10 ON NEW SKETCH OF 3/2/83)
Remarks:

Compound	ppb	Compound	ppb
Methylene Chloride.....		Benzene.....	<10
Freon 113.....	44	Toluene.....	<10
Chloroform.....	164	o-Xylene.....	<10
1,1,1 Trichloroethane.....	2	m,p-Xylene.....	<10
Carbon Tetrachloride.....	1	Xylenes.....	
1,1,2 Trichloroethylene.....	5	Chlorobenzene.....	<12
Chlorodibromomethane.....	2	Ethylbenzene.....	<10
Tetrachloroethylene.....	165	Chlorotoluenes.....	<12
Bromoform.....	5	1,3,5 Trimethylbenzene.....	<10
Bromodichloromethane.....	3	1,2,4 Trimethylbenzene.....	<10
1,1,2 Trichloroethane.....	5	m,p Dichlorobenzene.....	<14
s-Tetrachloroethane.....	3	o-Dichlorobenzene.....	<14
n-Decane.....		p-Diethylbenzene.....	<10
Undecane.....		p-Ethyltoluene.....	
Dodecane.....		1,2,4,5 Tetraethylbenzene.....	<10
n-Tridecane.....		Octane.....	
Decylbenzene.....	216	n-Nonane.....	

(B)

During transport of the sample from collection point to laboratory, the chain of custody must not be broken. The sample should be delivered by the sample collector or a designated representative who will sign for the receipt, integrity and transfer of the sample during shipment.

	SIGNATURE	AFFILIATION	DATE	TIME
1. Collected by	<u>[Signature]</u>	<u>SCDHC</u>	<u>3/2/83</u>	<u>10:14</u>
2. Transferred to	<u>[Signature]</u>	<u>SCDHS-PHL</u>	<u>3/2/83</u>	<u>12:05 PM</u>
3. Transferred to				
4. Transferred to				

BURTON & HAND

Engineers • Architects • Surveyors

144 Medford Avenue
Patchogue, New York 11772

(516) 475-0349 • (516) 567-6300

Appendix 1.1-14

1 of 1

Donald M. Hand, P.E. |
Charles G. Burton, L.S.
Robert J. Gruber, R.A.

March 2, 1983

County of Suffolk
Department of Health Services
15 Horseblock Place
Farmingville, New York 11738

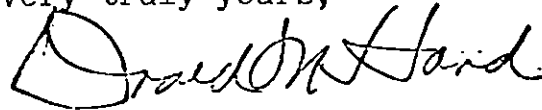
Attention: Mr. Gordon Watt

Re: Serv-All Uniform Rental
Bay Shore, New York
Order on Consent #1W82-69

Gentlemen:

For the above referenced facility attached please find two (2) copies of the up-dated engineer's report. This was a requirement under the specific terms and conditions of the order on consent with a due date of March 4, 1983.

Very truly yours,



Donald M. Hand, P.E.
Burton & Hand

DMH:dk
Attachments
cc: Ralph Colantuoni
Vincent J. Hand, Esq.

RECEIVED
MAR 2 1983

SUFFOLK COUNTY
JOB NO. 1000000000

44

p10/2

March 23, 1983

New York State Department of
Environmental Conservation
50 Wolf Road
Albany, NY 12233

Attention: Walter E. Loveridge, P.E.

Re: Serv-All Uniform Rental Corp.
S.C.D.H.S. Order on Consent IW 82-69

Gentlemen:

The enclosed engineering report is to show that the conditions of the referenced Order on Consent have been satisfied. Additionally, the report was to furnish sample information of the discharge in support of the requested SPDES permit. I hereby offer the following comments on the engineering report and the accompanying two drawings:

1. The report describes numerous process changes and equipment repairs which the company reportedly has made to solve their discharge problem. Now it must be shown that the present discharge meets the limitations of document 6WYOCR Part 703.6 by having composite samples analyzed at an approved lab. Results of the analysis must be made part of this report and must include the metals and solvents previously found in the discharge water.
2. The included drawings do not clearly show the industrial and sanitary wastewater piping within the building and how it is connected to the leaching pools. Since the existing stormdrain was recently converted to a leaching pool, please indicate any new or proposed stormwater structures.
3. Regarding compliance with the SCDS Order on Consent, removal of the treated sludge from the bottom of the pools and installation of the high level alarm system still needs to be verified by an inspector. In addition, all the abandoned pools must be pumped out if contaminated and subsequently filled in with clean sand.

continued.....

Walter B. Lovelidge, P.E.

- 2 -

March 23, 1983

4. A copy of this report will be forwarded to our Hazardous Materials Management Section for Article 12 review.

Finally, the report should not be approved until a SPDES permit has been issued and it has been clearly established that the company can meet effluent limits without a treatment system.

Very truly yours,

Gerry Robert, P.E.
Wastewater Management Section

GSR:he
Enc.

cc: P. Carralla
D. Gobbi
A. Yerman, P.E.
Dr. Hani, P.E.
G. Watt

M E M O R A N D U M

Department of Health Services

TO: File

FROM: Otto J. Reneberg, P.E. *OJR*

DATE: October 11, 1983

RE: SPDES PERMIT STATUS OF SERV-ALL UNIFORM RENTALS CORP.
of 8 Drayton Avenue, Bay Shore

From an inquiry with the Permit Administration Section, Albany on the SPDES permit status of the subject industry the following were indicated:

1. The processing of a SPDES permit for this industry was assigned to Robert Hannaford of Bureau of Wastewater Facilities Design, Albany.
2. A draft permit has not been developed as of this date because of the low priority it was given.
3. An updated engineering report, received April 1983, has not been reviewed nor has the review begun as of this date.

OJR:he

COUNTY OF SUFFOLK



PETER F. COHALAN
SUFFOLK COUNTY EXECUTIVE

DEPARTMENT OF HEALTH SERVICES

DAVID HARRIS, M.D., M.P.H.
Commissioner

May 2, 1983

Serv-All Uniform Rental Corp.
8 Drayton Avenue
Bay Shore, NY 11706

Re: Order on Consent No. IW 82-69

Dear Sirs:

After a review of our records and after consultation with the appropriate field and engineering personnel, this department acknowledges satisfactory compliance with each provision of the above-referenced Order on Consent.

The department appreciates the cooperation and good faith evidenced by your actions in this matter.

Should you have any questions regarding this situation, or pertaining to any other existing or potential environmental problem, please do not hesitate to contact this office.

Very truly yours,

William C. Roberts, P.E., Chief
Bureau of Environmental Pollution Control

WCR:daf

cc: Joan Scherb, Esq. - NYSDEC
Ted Snyder, P.E. - NYSDEC



Appendix 1.1-19
1 of 1

46.



PETER F. COHALAN
SUFFOLK COUNTY EXECUTIVE

DEPARTMENT OF HEALTH SERVICES

DAVID HARRIS, M.D., M.P.H.
COMMISSIONER

December 5, 1983

CERTIFIED-MAIL - R.R.R.

Serv-All Uniform Rental Corp.
8 Drayton Avenue
Bay Shore, NY 11706

Gentlemen:

The records of this office indicate that you have violated Article 12 of the Suffolk County Sanitary Code in that:

1. On September 28, 1983 samples taken by a representative of this department of the contents of your sanitary cesspool and of two industrial leaching pools revealed the presence of unpermitted levels of vinyl chloride and dry cleaning solvents respectively (tetrachloroethylene, trichloroethylene, etc.).
2. On October 5, 1983 samples taken of the contents of your sanitary cesspool and of two industrial leaching pools revealed the presence of unpermitted levels of dry cleaning solvents.
3. The aforementioned constitute unpermitted discharges of toxic or hazardous materials in violation of Article 12, Section 1205 of the Suffolk County Sanitary Code as well as violations of your Order on Consent No. IW 82-69, paragraph 1. These discharges are also in violation of the New York State Environmental Conservation Law, Article 17, Title 8, Section 17-0807(4).
4. The department also alleges that discharges of toxic or hazardous materials from Serv-All over an extended period of time have resulted in contamination of the ground waters of the county with organic solvents including, but not necessarily limited to, vinyl chloride, tetrachloroethylene and trichloroethylene. The department bases its allegations upon department evidence of unpermitted discharges at Serv-All as well as on department surveys of ground water quality taken both up stream

2 of 2
December 5, 1983

and down stream of the facilities of Serv-All Uniform Rental Corp.

5. The department further alleges that Serv-All is in violation of Section 1217(c) of the Suffolk County Sanitary Code in that Serv-All has failed to reclaim, recover and properly dispose of the discharged toxic or hazardous materials and has failed to restore the environment, including the ground water, to a condition and quality acceptable to the Commissioner of Health Services..

In order to resolve the foregoing violations, a preliminary hearing is being scheduled at this office on December 20, 1983 at 9⁰⁰ a.m. You may appear at this hearing with or without counsel; you may produce witnesses and evidence, but no sworn testimony will be taken or recorded. B

Please be advised that each violation of the Suffolk County Sanitary Code is punishable by a civil penalty not to exceed \$500 for each day or part thereof that such violation continues. Therefore, it would be in your best interest to appear at the preliminary hearing. A failure to appear will result in the scheduling of a formal hearing by the department.

If you are unable to meet the above-mentioned scheduling requirements, or if you have any questions regarding this proceeding, please do not hesitate to contact this office.

Very truly yours,



Patrick Perrella
Environmental Enforcement Services

PP:daf

cc: William C. Roberts, P.E., Chief
Bureau of Environmental Pollution Control
bcc: David Harris, M.D., M.P.H., Commissioner
• Oliver Schepers, Assistant Commissioner
• Herbert W. Davids, P.E.
Aldo Andreoli, P.E.
James Pim, P.E.
Joseph Baier, P.E.
Sy F. Robbins
Frank Randall
Dennis Gobbi

Interim Report #2

Vinyl Chloride Contamination of Ground Water
North Bay Shore, New York



SUFFOLK COUNTY DEPARTMENT OF HEALTH SERVICES

DAVID HARRIS, M.D., M.P.H.
COMMISSIONER

H. W. DAVIDS, P.E.
DIRECTOR, DIVISION OF ENVIRONMENTAL HEALTH

PREPARED BY:

BUREAU OF WATER RESOURCES

JOSEPH H. BAIER, P.E., CHIEF
SY F. ROBBINS, HYDROGEOLOGIST

NOVEMBER 1983

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List of Abbreviations

NYSDOH - New York State Department of Health

ppb - parts per billion

SCDHS - Suffolk County Department of Health Services

SCWA - Suffolk County Water Authority

I. SUMMARY

In September 1983, the Water Resources Bureau of the Suffolk County Department of Health Services delineated a narrow plume of highly contaminated groundwater in a residential area of North Bay Shore (Figure 1). The plume, which contains very high concentrations of vinyl chloride (a known human carcinogen) and tetrachloroethylene (dry cleaning fluid), was traced back to a point immediately downgradient of a uniform rental/dry-cleaning establishment on the east side of 5th Avenue (Figure 1); samples from the firm's cesspools contained both chemicals. The Hubbard Landfill, which is located to the west of 5th Avenue, does not appear to be related to this contamination. The plume was found to extend about 2/3 mile southeast and to terminate just south of Southern State Parkway, 1/3 mile upgradient of the Suffolk County Water Authority's Thomas Avenue well field (Figure 1).

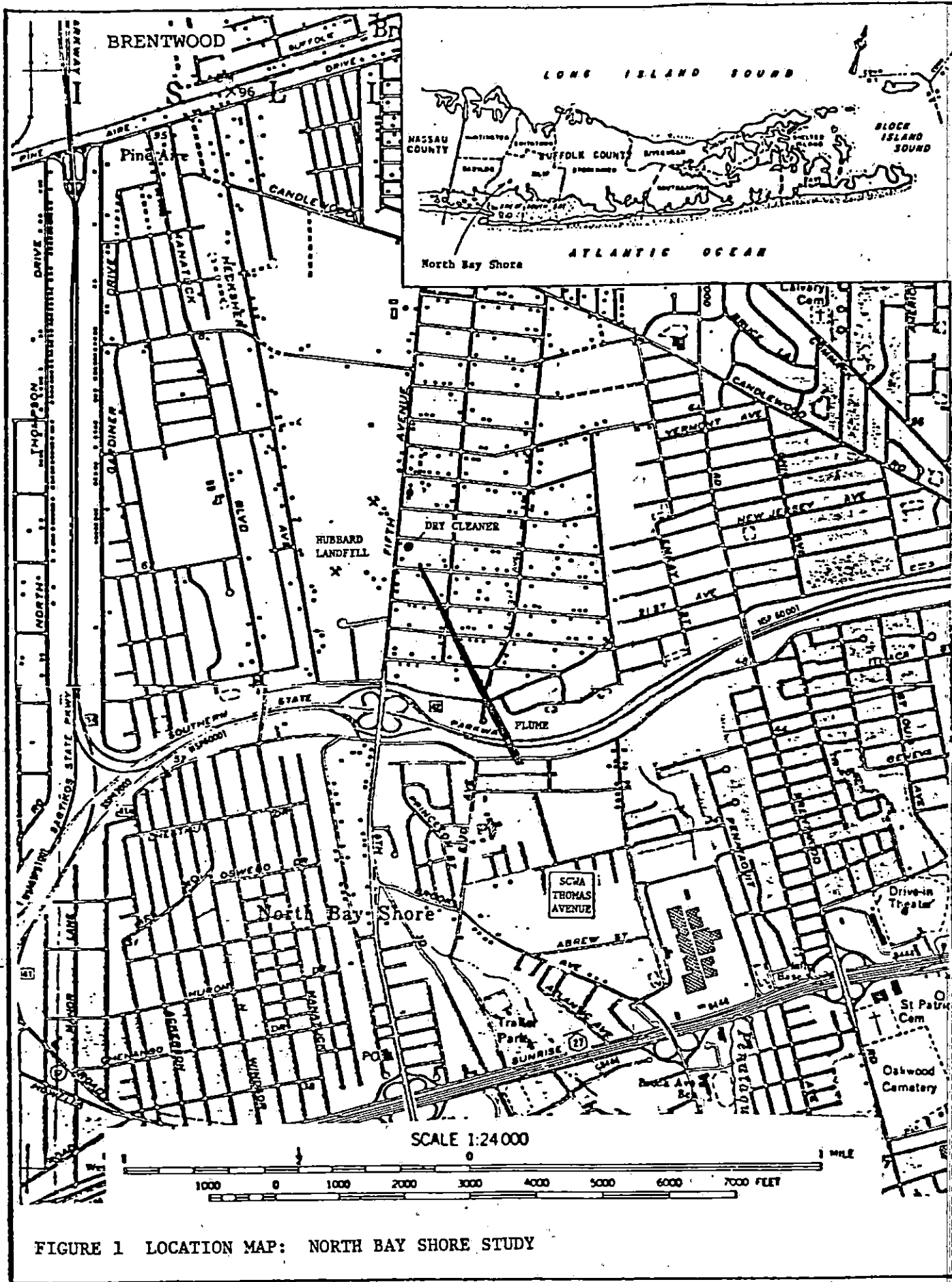
The Department of Health Services checked the records of the Suffolk County Water Authority and found that all residences located within the plume are hooked up to public water. Five private residential wells located immediately downgradient of the plume were sampled, and no vinyl chloride was detected. Water quality records for the two deep public supply wells at Thomas Avenue were reviewed and new samples were taken; no vinyl chloride or other organic contamination was found.

It is recommended that additional sampling wells be drilled, a contingency plan for the well field be developed, and an aquifer restoration project be considered.

II. INTRODUCTION

In August 1983, the Water Resources Bureau of the Suffolk County Department of Health Services found high concentrations of vinyl chloride and organic solvents in a test well in North Bay Shore. This well, which was installed as part of a Department investigation of the Hubbard Landfill, had vinyl chloride concentrations as high as 2,800 ppb -- over 500 times the drinking water guideline, and almost 40 times higher than any level previously found in Suffolk County ground water.

The Bureau then installed additional wells in order to trace the contamination back to its source(s), and to define the extent of the plume. Samples of cesspool wastes from local industries were taken, and private and public supply wells in the area were checked. This report describes the status of this investigation, to date.



III. BACKGROUND

A. Vinyl Chloride

Vinyl chloride (chloroethylene) is a chlorinated hydrocarbon used to form polyvinyl chloride plastics (PVC). Although normally found as a gas, vinyl chloride is slightly soluble in water, and can be formed by the biodegradation (hydrogen/chlorine substitution) of the organic solvents tetrachloroethylene (dry-cleaning fluid) and trichloroethylene (an industrial degreaser), with the formation of cis-dichloroethylene as an intermediate breakdown product. Such biodegradation has been shown to occur under anaerobic conditions, which can be found in landfills and septic systems (cesspools). It has also been speculated that vinyl chloride could be formed by thermal-hydrolytic breakdown of solvents during repeated use, and would be present, in small amounts, in process wastewaters and sludges.

Vinyl chloride is considered a health threat, since it is readily absorbed via the gastrointestinal tract and accumulated in the liver, where it has been associated with angiosarcoma. The New York State Department of Health's drinking water guideline is 5 parts per billion (ppb).

B. Previous Studies

The only firm on Long Island known to have handled vinyl chloride for the manufacture of PVC was the Hooker Chemical Company of Hicksville, N.Y., which ceased operations in 1978. A 1978 Hooker memo indicated that scrapings of PVC waste lagoons had been trucked "to a (private ?) landfill in Brentwood" during 1973 and 1974. A special 1982 investigation by the Suffolk County Department of Health Services downgradient of two landfills in the Brentwood area -- Sonia Road and Hubbard -- found only one well with traces of vinyl chloride (9 ppb, just beyond the leading edge of the Sonia Road plume); the source of this contamination could not be determined.

= :

In an earlier study (1979), the SCDHS conducted an extensive survey of private wells around the Hauppauge Landfill after vinyl chloride was found in air samples at a nearby school; a number of contaminated wells were found, one of which had a concentration of 77 ppb. The source of vinyl chloride within the landfill could not be determined. A special 1980-81 SCDHS survey of 244 private wells around landfills throughout the County found vinyl chloride in about 6% of the wells, with 2% exceeding the drinking water guideline of 5 ppb.

IV. VINYL CHLORIDE INVESTIGATION: NORTH BAY SHORE

A. Discovery

In September 1982, as part of its search for the "Brentwood" disposal site of Hooker Chemical Company PVC waste, the Bureau of Water Resources installed a series of profile wells in the vicinity of Hubbard Sand & Gravel on 5th Avenue, North Bay Shore, part of which is used as a landfill for construction debris and brush (Figures 1 and 2). All six downgradient wells (2.1 - 2.7) had significantly elevated conductivities and organic solvent contamination, which are related to wastes buried at the landfill and/or to effluents discharged by local industries. None of these wells, however, had detectable levels of vinyl chloride (Figure 2).

In August 1983, four new wells (3.1 - 3.5) were installed southeast of the Hubbard site in order to better define the boundaries of the landfill plume (Figure 2). The two most easterly wells (3.1 and 3.5) were expected to be clean; instead, the SCDES found that both were contaminated with tetrachloroethylene, cis-dichloroethylene, and vinyl chloride (Figure 2). Well 3.1, on East Third Avenue, had a vinyl chloride concentration of 2,800 ppb at the deepest screen setting (55 feet below the water table); this concentration was over 500 times the drinking water guideline, and almost 40 times higher than any level previously found in Long Island ground water. A program was initiated immediately to identify and test all private wells in the area (see Section V).

B. Plume Delineation

During September 1983, 12 new wells (3.1A, 3.6 - 3.15) were installed by the Bureau in an attempt to trace the contamination back to its point(s) of origin, and to define its lateral and downgradient extent (Figure 2). These wells indicated that the vinyl chloride contamination was confined to a narrow (less than 300 foot wide) plume that extends 2/3 mile in a southeasterly direction. The plume appears to emanate from an area just east of 5th Avenue in which a uniform rental/ dry-cleaning establishment is located; the plume does not appear to be related in any way to activities at the Hubbard Landfill, which is located further to the west (Figure 1).

Wells 3.11 and 3.11A, which were installed immediately upgradient of the dry-cleaning facility, showed no vinyl chloride or tetrachloroethylene contamination. Relatively small amounts of trichloroethylene (max. 77 ppb at 55 feet) and cis-dichloroethylene (max. 30 ppb at 55 feet) were detected at depths greater than 30 feet below the water table (Figure 2). This contamination is believed to have come from industries located far upgradient.

3.9	Tot	Tri	Cls	VC
10'	ND	ND	ND	ND
20'	ND	ND	ND	ND
30'	ND	3	ND	ND
40'	3	14	5	ND

2.4	Tot	Tri	Cls	VC
5'	ND	ND	ND	ND
15'	ND	ND	ND	ND
25'	ND	ND	ND	ND
35'	ND	ND	ND	ND

2.5	Tot	Tri	Cls	VC
10'	ND	ND	ND	ND
20'	ND	ND	ND	ND
30'	ND	ND	ND	ND
40'	ND	ND	ND	ND

2.1	Tot	Tri	Cls	VC
10'	13	ND	ND	ND
20'	ND	ND	ND	ND
30'	ND	ND	ND	ND
40'	ND	ND	ND	ND
50'	ND	ND	ND	ND

2.2	Tot	Tri	Cls	VC
10'	140	5	9	ND
20'	4	ND	ND	ND
30'	ND	ND	ND	ND
40'	ND	ND	ND	ND

2.6	Tot	Tri	Cls	VC
10'	ND	ND	ND	ND
20'	ND	ND	ND	ND
30'	ND	ND	ND	ND
40'	ND	10	ND	ND

2.7	Tot	Tri	Cls	VC
10'	120	9	54	ND
20'	19	2	11	ND
30'	ND	ND	ND	ND
40'	ND	ND	ND	ND

3.10	Tot	Tri	Cls	VC
10'	15	3	ND	ND
20'	12	47	3	ND
30'	4	200	21	ND
40'	ND	140	ND	ND

3.13	Tot	Tri	Cls	VC
5'	25	3	9	5
15'	19	ND	5	ND
25'	620	27	210	ND
35'	240	33	120	30
45'	370	49	210	65
55'	3,200	1,300	5,500	1,300

3.8	Tot	Tri	Cls	VC
10'	ND	ND	ND	ND
20'	ND	ND	ND	ND
30'	ND	ND	ND	ND
40'	ND	3	ND	ND
50'	ND	ND	ND	ND

3.11	Tot	Tri	Cls	VC
10'	ND	ND	ND	ND
20'	ND	ND	ND	ND
30'	ND	2	ND	ND
40'	ND	58	22	ND
50'	ND	25	14	ND

3.11A	Tot	Tri	Cls	VC
5'	ND	ND	ND	ND
15'	ND	ND	ND	ND
25'	ND	6	ND	ND
35'	ND	25	12	ND
45'	ND	21	13	ND
55'	ND	77	30	ND
65'	ND	11	ND	ND

3.15	Tot	Tri	Cls	VC
10'	3,200	910	6,700	12
20'	330	46	21,000	18
30'	19,000	36	200	ND
40'	3,600	35	30	ND
50'	230	54	51	ND
65'	51	100	150	ND
75'	98	180	77	ND
85'	380	220	75	ND

3.7	Tot	Tri	Cls	VC
10'	4	4	ND	ND
20'	ND	60	ND	ND
30'	ND	270	6	ND
40'	ND	770	18	ND
50'	ND	320	9	ND

3.6	Tot	Tri	Cls	VC
10'	ND	ND	ND	ND
20'	ND	ND	ND	ND
30'	ND	ND	ND	ND
40'	ND	ND	ND	ND
50'	ND	ND	ND	ND

FIGURE 2 GROUND WATER DATA: NORTH BAY SHORE

01/8/10

FIGURE 2 continued

3.12 - Well Number
ND - None Detected

VC - Vinyl Chloride
Cis - Cis-dichloroethylene
Tcl - Trichloroethylene
Tce - Tetrachloroethylene

Approximate Scale 1" = 560 feet.
Plume width approximately
Depth in feet below the water table.
Concentrations in ppb.

08	08	08	08	08
09	09	09	09	09
10	10	10	10	10
11	11	11	11	11
12	12	12	12	12
13	13	13	13	13
14	14	14	14	14
15	15	15	15	15
16	16	16	16	16
17	17	17	17	17
18	18	18	18	18
19	19	19	19	19
20	20	20	20	20
21	21	21	21	21
22	22	22	22	22
23	23	23	23	23
24	24	24	24	24
25	25	25	25	25
26	26	26	26	26
27	27	27	27	27
28	28	28	28	28
29	29	29	29	29
30	30	30	30	30
31	31	31	31	31
32	32	32	32	32
33	33	33	33	33
34	34	34	34	34
35	35	35	35	35
36	36	36	36	36
37	37	37	37	37
38	38	38	38	38
39	39	39	39	39
40	40	40	40	40
41	41	41	41	41
42	42	42	42	42
43	43	43	43	43
44	44	44	44	44
45	45	45	45	45
46	46	46	46	46
47	47	47	47	47
48	48	48	48	48
49	49	49	49	49
50	50	50	50	50
51	51	51	51	51
52	52	52	52	52
53	53	53	53	53
54	54	54	54	54
55	55	55	55	55
56	56	56	56	56
57	57	57	57	57
58	58	58	58	58
59	59	59	59	59
60	60	60	60	60
61	61	61	61	61
62	62	62	62	62
63	63	63	63	63
64	64	64	64	64
65	65	65	65	65
66	66	66	66	66
67	67	67	67	67
68	68	68	68	68
69	69	69	69	69
70	70	70	70	70
71	71	71	71	71
72	72	72	72	72
73	73	73	73	73
74	74	74	74	74
75	75	75	75	75
76	76	76	76	76
77	77	77	77	77
78	78	78	78	78
79	79	79	79	79
80	80	80	80	80
81	81	81	81	81
82	82	82	82	82
83	83	83	83	83
84	84	84	84	84
85	85	85	85	85
86	86	86	86	86
87	87	87	87	87
88	88	88	88	88
89	89	89	89	89
90	90	90	90	90
91	91	91	91	91
92	92	92	92	92
93	93	93	93	93
94	94	94	94	94
95	95	95	95	95
96	96	96	96	96
97	97	97	97	97
98	98	98	98	98
99	99	99	99	99
100	100	100	100	100

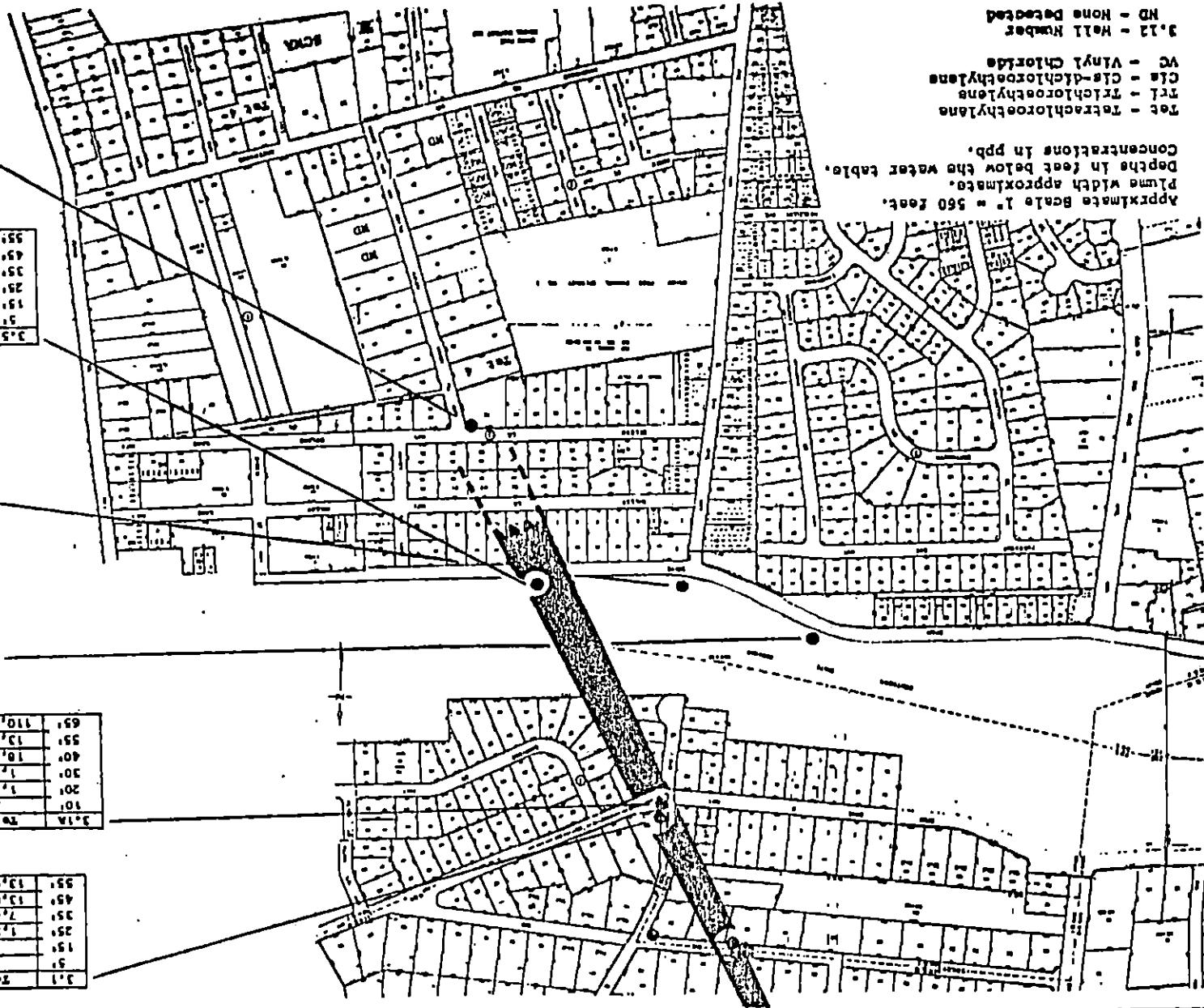
55'	5,300	1,500	5,000	ND
45'	3,200	170	660	ND
35'	300	250	1,000	45
25'	100	16	69	ND
15'	45	3	10	ND
5'	50	4	12	ND
3.5'	Toc	Tcl	Cls	VC

60'	ND	ND	ND	ND
50'	ND	ND	ND	ND
40'	ND	ND	ND	ND
30'	ND	ND	ND	ND
20'	ND	ND	ND	ND
10'	ND	ND	ND	ND
3.12	Tce	Tcl	Cis	VC

60'	ND	ND	ND	ND
50'	ND	ND	ND	ND
40'	18	ND	ND	ND
30'	12	ND	ND	ND
20'	4	ND	ND	ND
10'	ND	ND	ND	ND
3.3	302	174	118	VC

3.12	Tce	Tcl	Cis	VC
55'	110,000	6,000	5,100	36
50'	13,000	450	7,700	1,800
40'	10,000	6,300	10,000	650
30'	1,900	200	940	85
20'	1,200	150	860	49
10'	360	40	200	46
3.12	Tce	Tcl	Cis	VC

55'	13,000	700	8,600	2,800
45'	13,000	3,100	11,000	2,400
35'	7,400	590	2,400	61
25'	1,500	140	830	31
15'	92	17	85	19
5'	67	11	54	15
3.1	Tot	Tot	Cls	VC



Well 3.15, which was installed immediately downgradient (within 250 feet) of the dry-cleaning facility, had vinyl chloride (max. 18 ppb at 20 feet), and extremely large concentrations of tetrachloroethylene (max. 19,000 ppb at 30 feet) and cis-dichloroethylene (max. 21,000 ppb at 20 feet) at shallow depths, indicating a nearby upgradient source (Figure 2).

The leading edge of the plume was found just south of Southern State Parkway (Figures 1 and 2). Well 3.14, which was installed 700 feet south of the Parkway in line with the plume, had no detectable vinyl chloride, and had only traces of other organics, with the exception of tetrachloroethylene, which had a maximum concentration of 31 ppb (40 feet below the water table); no organics were detected from 60 feet below the water table down to the top of a major clay layer (80 feet below the water table). Well 3.14 is located about 1/4 mile upgradient of the Suffolk County Water Authority's Thomas Avenue well field (Figures 1 and 2).

C. Public and Private Well Sampling

The discovery of vinyl chloride in well 3.1 prompted an immediate check of water quality records for the SCWA well field on Thomas Avenue, which is located about 1/2 mile directly downgradient. The field contains two deep Magothy aquifer wells (712 and 666 feet deep) that are screened far below the Gardiners Clay unit (which is found at 85 feet, 70 feet below the water table). The SCDHS and SCWA test records showed no contamination in either well, and additional samples taken in early September and October 1983 confirmed that the wells have not been impacted.

A check of SCWA records also revealed that all houses within the plume were hooked up to public water. Five houses utilizing private wells were identified downgradient of the leading edge of the plume; these wells were checked by the Department and were found safe for drinking, although two had traces of tetrachloroethylene (Figure 2).

D. Discussion

The groundwater quality data collected by the SCDHS point to the dry-cleaning facility as the most probable source of the vinyl chloride plume: no vinyl chloride or tetrachloroethylene were found immediately upgradient of the facility, but were found at shallow depths just downgradient. Samples from the facility's cesspools indicated the presence of both chemicals. In addition, an analysis of waste sludge from the facility (made by a consultant in 1980) contained 3.5% tetrachloroethylene and an unspecified concentration of vinyl chloride, indicating that vinyl chloride was being formed during the dry-cleaning process.

The average linear velocity of ground water in the region is calculated to be about 1.6 ft/day. At this rate of flow, the 2/3 mile long plume would represent discharges over a period of about 7 years. It also places the leading edge of the plume about 2 years travel time from the SCWA well field at Thomas Avenue.

It should be noted that contamination within the plume was found to extend from the water table down to the limit of drilling, which ranged from 55 to 85 feet below the water table (Figure 2). It is believed that contamination throughout the plume extends down to the Gardiners Clay unit, which lies an estimated 70 to 90 feet below the water table.

V. RECOMMENDATIONS

An enforcement action should begin to consider the following:

- 1) additional sampling within the plume in order to better define the vertical movement of organic chemical species;
- 2) water quality sampling below the Gardiners Clay unit;
- 3) contingency planning for the Thomas Avenue well field; and,
- 4) possible aquifer restoration (interception of the plume upgradient of Thomas Avenue.

COUNTY OF SUFFOLK

Appendix 1-1-22

1 of 9

Received from:
Suffolk Co. Dept.
Health



PETER F. COHALAN
SUFFOLK COUNTY EXECUTIVE

DEPARTMENT OF HEALTH SERVICES

DAVID HARRIS, M.D., M.P.H.
COMMISSIONER

July 15, 1985

Joan Scherb, Esq.
Regional Attorney
New York State Department
of Environmental Conservation
Region I
SUNY, Bldg. 40
Stony Brook, NY 11794

Re: Matter of Serv-All Uniform Rentals Corp.

Dear Ms. Scherb:

On March 13, 1985 I forwarded to your office the signed affidavits of Steven Cary and Isidore Doroski of this department. The purpose of these affidavits was to enable your office to obtain an administrative search warrant for access to the property, and for installation of wells, at Serv-all Uniform Rentals Corp. at 8 Drayton Avenue in Bay Shore.

Serv-All is believed to be the cause of a plume of ground-water contamination containing vinyl chloride and tetrachloro-ethylene. This plume is flowing towards a public water authority well. It is of utmost importance that groundwater recovery of these contaminants be commenced as soon as possible. I understand it may be acceptable to discharge the recovered waters to the public sewer system.

At the enforcement meetings held at New York State Department of Environmental Conservation in Stony Brook on May 6, 1985 and July 2, 1985, I inquired as to the status of this case. Those present at the meeting did not have this information on hand. Therefore, I am requesting information concerning the status of this case with regard to obtaining warrant of access, installation of wells and any groundwater reclamation plans that may be in the offing.

Continued . . .

2 of 9

Joan Scherb, Esq.

- 2 -

July 15, 1985

Your prompt response in the above matter is greatly appreciated. If I can be of any assistance, please do not hesitate to contact me.

Very truly yours,



Patrick Perrella
Environmental Enforcement Services

PP:daf

cc: A. Machlin, P.E.
A. Andreoli, P.E.
W. Roberts, P.E.

AFFIDAVIT

RE: SERV-ALL UNIFORM RENTALS CORP.

ISIDORE DOROSKI, being duly sworn, deposes and says:

1. I am a public health sanitarian employed by the Suffolk County Department of Health Services' Bureau of Environmental Pollution Control. I have been so employed since 1980.

2. My responsibility with the department is inspecting industrial facilities within Suffolk County, and obtaining samples of industrial waste discharges therefrom, to determine if the inspected industry is discharging pollutants which may contaminate groundwater. Groundwater is the source of drinking water supply for the County of Suffolk.

3. That in the course of my employ with the Department of Health Services I have become acquainted with an industry known as Serv-All Uniform Rentals Corp., located at 8 Drayton Avenue, Bay Shore, New York.

4. On December 5, 1983, October 5, 1983 and September 28, 1983 I did perform inspections at the Serv-All site. During these inspections I observed that Serv-All performs commercial dry cleaning and uses tetrachloroethylene, an organic solvent, in its dry cleaning process.

5. On October 5, 1983 and September 28, 1983 I sampled the contents of the cesspool system and subsurface industrial discharge leaching pools located at Serv-All. On

SERV-ALL UNIFORM RENTALS CORP.
(continued)

the same day of sampling I delivered these samples to the Suffolk County laboratory in Hauppauge for analysis.

6. The sample analysis results from the above samples were forwarded to me by the laboratory and indicated that tetrachloroethylene was present in the October 5, 1983 samples taken from the cesspool system and from the industrial pools. All samples (3) exceeded the 50 parts per billion (ppb) guideline set forth in the New York State drinking water guidelines and all constituted a violation of Article 12 of the Suffolk County Sanitary Code (unpermitted discharges). The analysis results for the samples taken on September 28, 1983 revealed the presence of tetrachloroethylene in two discharge pools, one of which was in excess of New York State drinking water guidelines. In addition, one discharge pool contained vinyl chloride at a level exceeding the drinking water guidelines. These two samples also constitute violations of Article 12 of the Suffolk County Sanitary Code.

A review by me of the department file on Serv-All, kept in the ordinary course of business, indicates that Serv-All has been cited by the department with violations for discharging unpermitted levels of tetrachloroethylene as well as other organic solvents on the following dates: December 4, 1979, June 16, 1982, November 5, 1982, March 2, 1983, September 28, 1983 and October 5, 1983.

SERV-ALL UNIFORM RENTALS CORP.
(continued)

I have read all of the above and swear it to be true to the best of my knowledge.


ISIDORE DOROSKI

Sworn to before me this

12th day of MARCH, 1985.



DENNIS C. GOBBI
NOTARY PUBLIC, State of New York
No. 52-4527485 Suffolk County
Commission Expires March 30, 1986

AFFIDAVIT

RE: MATTER OF SERV-ALL UNIFORM RENTALS CORP.

STEVEN CARY, being duly sworn, deposes and says:

1. I am a Senior Public Health Engineer and Professional Engineer with the Suffolk County Department of Health Services.

2. That the Department of Health Services initiated in 1982 a study of the area surrounding the Hubbard Sand and Gravel landfill on 5th Avenue in North Bay Shore. Wells installed east of the Hubbard site were found to contain high levels of organic chemicals, specifically tetrachloroethylene and vinyl chloride, exceeding drinking water guidelines. A subsequent hydrologic evaluation conducted by the Department indicated that the Hubbard landfill was not the source of the contamination and other possible point sources were then investigated.

3. Test wells were installed in the area both north and south of Drayton Avenue, where a dry cleaning establishment named Serv-All Uniform Rentals Corp. is located. The groundwater flow direction, determined from hydraulic studies, was found to be southeasterly, and wells drilled and sampled along the flow path downgradient of the Serv-All site were found to contain high levels of tetrachloroethylene (a dry cleaning fluid) and vinyl chloride, exceeding established New York State Drinking Water Guidelines. The drinking water guideline levels for tetrachloroethylene and vinyl chloride are respectively 50 ppb and 5 ppb. Levels of tetrachloroethylene were found in monitoring wells southeast of the Serv-All property greatly exceeding the guideline, reaching as high as 19,000 ppb. Vinyl chloride

SERV-ALL UNIFORM RENTALS CORP.
(continued)

7 of 9

concentrations of 1,300 ppb similarly exceeded established guidelines.

4. A total of ten wells were installed downgradient of the Serv-All property to determine the length, breadth, and depth of contaminated groundwater. The shape of the contaminated groundwater was found to take the form of a ribbon-like plume (analogous to a smoke plume from a smokestack which moves downwind in the atmosphere) which originates at the Serv-All site and moves southeast with the prevailing groundwater flow.

5. That four wells were installed north, or upgradient of the Serv-All property, and tested for organic chemicals. No vinyl chloride was detected in any of these wells. A small trace of tetrachloroethylene was found at depth in one of the four wells; however, this low background concentration is attributed to another source far upgradient of the Serv-All property. Given the concentrations of tetrachloroethylene and vinyl chloride found in the plume southeast of Serv-All, other upgradient sources could not possibly cause the extensive plume contamination. Therefore, Serv-All is the only likely source of confirmed contamination.

6. That vinyl chloride is considered a hazard to human health and a carcinogen.

7. That the accidental discharge of even small amounts of tetrachloroethylene or vinyl chloride into the ground can impact greatly on groundwater quality.

8. That a public water supply field is located within 1,500 feet of the leading edge of the contaminated

groundwater plume, and that the Department of Health Services is seeking to conclusively determine the contaminant source. If the source is actively discharging at present, it shall be stopped and the groundwater cleaned up. If a past discharge is responsible for the contamination, then groundwater clean up or reclamation will be required to prevent possible contamination of water supply wells.

9. That test wells must be installed on the property at 8 Drayton Avenue, controlled by Serv-All Uniform Rentals Corp., to conclusively determine the source of the contamination in question. That test wells, soil samples, and cesspool samples are needed on the property located at 8 Drayton Avenue to determine if similar contamination is present in the groundwater at this location. It is also necessary to survey casing elevations on the property in question, to measure the watertable and further test the groundwater flow, to gather samples from tanks or cesspools on the premises and test the content of same, and to take photographs. It will also be necessary to remove samples from the test wells on a periodic basis to test for the presence of contaminants, and to conduct additional tests and inspections authorized by Article 12 of the Suffolk County Sanitary Code.

10. That the installation of the test wells as well as the monitoring of said wells and the performance of the necessary tests described in paragraph 7 above requires that authorized representatives of the Department of Health

Services be permitted periodic access to the premises in question during working hours, up to sixty days from the initial date of entry. The access interval specified results from the prospect of inclement weather delaying drilling and monitoring, and the need to wait for laboratory results before proceeding to follow-up sites. It is expected that no more than twelve wells sampled at multiple vertical intervals, will be installed on the premises in question.

11. That Serv-All has refused to permit department representatives access for the purpose of installing test wells unless the department agrees to a number of unreasonable conditions such as: requiring the department to hire the services of an independent testing lab; or requiring the department to submit for Serv-All's review, a plan for conducting a comprehensive investigation of all industries within the North Bay Shore area, with "a full search for all potential sources of organic chemicals" and "collection and analysis of soil, wastewater and other samples from the source areas and placement of monitoring wells" at these potential sources.

I have read all of the above and swear that it is true to the best of my knowledge.

Steven Cary
STEVEN CARY

Sworn to before me this

1st day of March, 1985.

MARION KOPF
Notary Public, State of New York
Suffolk County, No. 52-4670410
Term Expires March 30, 1986



PETER F. COHALAN
SUFFOLK COUNTY EXECUTIVE

DEPARTMENT OF HEALTH SERVICES

DAVID HARRIS, M.D., M.P.H.
COMMISSIONER

December 14, 1983

Albert Machlin, P.E.
Regional Engineer
New York State Department
of Environmental Conservation
SUNY - Building 40
Stony Brook, NY 11794

Re: Vinyl Chloride Plume Investigation - North Bay Shore

. Dear Al:

As per your letter of December 2, 1983, attached please find the following:

1. "Interim Report #2: Vinyl Chloride Contamination of Ground Water, North Bay Shore, NY", prepared by Suffolk County Bureau of Water Resources, November, 1983.
2. Memorandum on Serv-All Rentals Corp., Bay Shore, NY, prepared by Peter Akras, P.E., Suffolk County Department of Health Services, October 17, 1983.

You should also note that this Bureau has scheduled a preliminary administrative hearing with Serv-All. The date of hearing is December 15, 1983. If there is no voluntary resolution of the problem at this hearing (i.e., clean-up of the contaminated ground waters) then a meeting of all regulatory agencies will be held to determine the most effective steps to take to resolve this issue.

If you have any questions, please do not hesitate to contact me.

Sincerely,

William C. Roberts, P.E., Chief
Bureau of Environmental Pollution Control

WCR:daf

COUNTY OF SUFFOLK
DEPARTMENT OF HEALTH SERVICES

In the Matter of the Alleged Violation of :
Article 12 of the Suffolk County Sanitary :
Code by :
Serv-All Uniform Rental Corp. :
Bay Shore, NY 11706 :
Respondent :
.....

ORDER ON CONSENT
NO. IW 83-93

DATE: 12/20/83

GENERAL PROVISIONS

This Department alleges that the above-named Respondent has failed to comply with the provisions of the Suffolk County Sanitary Code as specified below. Because of such alleged non-compliance, the above-named Respondent consents and agrees to the issuance of this Order on Consent, and agrees to be bound by the terms, conditions and provisions stated herein.

Respondent understands that by entering into the Order on Consent with the Department, he is affirmatively and voluntarily waiving his right to a formal adjudicatory proceeding with respect to the matters herein addressed. Although the Department will not pursue further enforcement action with respect to the specific alleged violations of law set forth below if the above-named Respondent enters into this Order and abides by its terms, Respondent understands that the Department is not agreeing to forbearance from pursuing enforcement action regarding alleged violations not addressed by this Order. Moreover, Respondent understands that notwithstanding his execution of this Order on Consent, his failure to strictly comply with all of the terms, conditions and provisions herein contained will revive the Department's rights regarding the violations alleged as set forth below subject to a set-off for any penalties already paid pursuant to this Order on Consent. Furthermore, the Respondent is hereby advised that this Order on Consent, duly executed by the Respondent's agent and the Commissioner or his duly authorized representative has the force and effect of a Commissioner's Order, the violation of which is subject to penalties as provided in Section 218 of Article 2 of the Suffolk County Sanitary Code.

A modification of any of the provisions of this Order on Consent may be obtained by a timely written request demonstrating good and sufficient cause for the change or extension requested. No modification of this Order shall be effective unless and until it is specifically set forth in writing by the Department.

SPECIFICATION OF ALLEGED VIOLATIONS

It is alleged that the Respondent above-named failed to comply with the following provisions of the Suffolk County Sanitary Code as indicated below:

1. On October 5, 1983 unpermitted levels of organic solvents were found in the Respondent's industrial leaching pools and sanitary cesspool system.
2. On September 28, 1983 unpermitted levels of organic solvents and metals were found in the Respondent's industrial leaching pools, and an unpermitted level of vinyl chloride was found in the Respondent's sanitary cesspool system.
3. The aforementioned constitute unpermitted discharges of toxic or hazardous materials in violation of Article 12, §1205 of the Suffolk County Sanitary Code as well as violations of the Respondent's Order on Consent No. IW 82-69, ¶1.
4. The department also alleges that discharges of toxic or hazardous materials from Serv-All have resulted in contamination of the ground waters of the County with organic solvents including, but not necessarily limited to, tetrachloroethylene, trichloroethylene and vinyl chloride.
5. The department further alleges that Serv-All is in violation of §1217(c) of the Suffolk County Sanitary Code in that Serv-All has failed to reclaim, recover and properly dispose of the discharged toxic or hazardous materials and has failed to restore the environment (ground water) to a condition and quality acceptable to the Commissioner of Health Services.

SPECIFIC TERMS AND CONDITIONS

In satisfaction of the above-named Respondent's alleged violations of the Suffolk County Sanitary Code, the Respondent agrees to the entering and issuance of this Order of the Commissioner of the Suffolk County Department of Health Services, and the Respondent agrees to be bound by the terms and conditions following as well as by the above General Provisions.

1. Within forty-five (45) days from date of execution of Consent Order, Serv-All Uniform Rentals Corporation, hereinafter known as the Respondent, shall have submitted to the Suffolk County Department of Health Services' Bureau of Environmental Pollution Control, hereinafter known as the Department, a report which describes in detail the Respondent's proposal, or proposals, for removal of vinyl chloride and organic solvents from the ground water at North Bay Shore, New York, and for disposal and/or treatment of the contaminated ground water in a manner subject to Department approval. Department review and approval will take approximately thirty (30) days.

2. The aforementioned report shall be prepared by an engineer licensed to practice in the State of New York.

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SPECIFIC TERMS AND CONDITIONS
(Continued)

3. The aforementioned organic solvents include, but are not necessarily limited to, tetrachloroethylene, cis-dichloroethylene and trichloroethylene.
4. The location of the aforementioned contaminated ground water is that "plume" of contamination extending from the location of the Respondent's facility to a location approximately two-thirds of a mile southeast of the Respondent's facility and just south of Southern State Parkway. This plume is identified in the Department's "Interim Report No. 2, Vinyl Chloride Contamination of Ground Water, North Bay Shore, New York", prepared by Sy F. Robbins, November 1983.
5. The site(s) of the Respondent's ground water recovery system shall be at the approximate leading edge(s) of the flow of contaminated ground water at or near Southern State Parkway.
6. The Department shall have final approval of placement and location of recovery wells and monitoring wells.
7. The Department agrees to assist the Respondent in securing the permission of municipal property owner(s) on whose property the Respondent may be placing recovery wells by sending correspondence describing Suffolk County's interest in this recovery project.
8. Within sixty (60) days of Department approval of the Respondent's submitted proposal for recovery of contaminated ground waters, aforementioned, the Respondent, at its own expense, shall have installed its recovery system and shall have begun recovery and proper treatment and/or disposal of the contaminated ground waters in accordance with the approved proposal.
9. The recovery and treatment and/or disposal of contaminated ground waters shall continue, at the Respondent's expense, until such time as recovered ground waters do not exceed New York State discharge standards for vinyl chloride and organic solvents, and the Department informs the Respondent that the recovery system may be closed down and removed.
10. Within thirty (30) days of Department approved shut-down of the Respondent's ground water recovery system the Respondent shall have restored at its own expense the ground surface and environment at well site locations to a state similar to that existing prior to the installation of the Respondent's recovery system.
11. Any questions the Respondent may have concerning the submittal of its engineering report or of site well locations should be addressed to the Suffolk County Department of Health Services' Bureau of Water Resources, 225 Rabro Drive East, Hauppauge, NY 11788 Attention: Steven Cary, P.E., (phone 516-348-2893).

SPECIFIC TERMS AND CONDITIONS
(Continued)

12. Nothing contained herein shall prevent the Respondent from selling or leasing its Bay Shore facility, referred to herein, at any time during the term of this Order on Consent provided such purchaser executes an agreement in a form satisfactory to the County providing that this Order on Consent shall be binding upon the purchaser, its successors and assigns and its grantees and lessees of the Bay Shore facility.

13. There is no admission of guilt by the Respondent regarding any of the allegations of violation contained in this order on consent and the Department so acknowledges.



New York State Department of Environmental Conservation

MEMORANDUM

Appendix 1.1-24

1072

TO: Joan Scherb
FROM: Andrew Yerman *Andy*
SUBJECT: Servall Cleaner, Bay Shore #0109703, Case #1-1188)
(AKA Serv-All Uniform Cleaners, Inc.)
DATE: November 19, 1984

Per attached 5/2/84 letter, Serv-All Cleaners stated that they had ceased discharges except sanitary waste at their 8 Drayton Ave. Site, as of April 19, 1984, and requested deletion of their SPDES pending draft permit released for Public Notice on March 28, 1984 and pending finalization.

Suffolk County Department of Health Services has verified that the sanitary pools have been tested and the industrial pools have been abandoned in accordance with SCDHS procedures issued 5/8/84. With a sanitary design flow of less than 1,000 gpd, we do not require a SPDES permit (per 6NYCRR753), and would proceed to recommend deletion of the permit.

Please advise whether you have any objection to deletion, based on your ongoing case concerning an alleged vinyl chloride discharge and the plume at the Servall site.

sp
Enclosures(2)
cc: J. Maloney
A. Machlin
T. Snyder

RECEIVED
DEC 3 1984

SUFFOLK COUNTY
JOB NO. _____

144 Medford Avenue
Patchogue, New York 11772

(516) 475-0349 • (516) 567-6300

2 of 2

Donald M. Hand, P.E.
Charles G. Burton, L.S.
Robert J. Gruber, R.A.

May 2, 1984

Mr. Anthony Adamczyk, P.E.
Director of Bureau of Waste
Water Facilities
New York State Department of
Environmental Conservation
50 Wolf Road
Albany, New York 12233

Re: Serv-All Cleaners
8 Drayton Avenue
Bay Shore, New York

Dear Mr. Adamczyk:

Please be advised that the above referenced firm wishes to withdraw their application for a SPDES permit. On April 19, 1984 Serv-All Cleaners had their washingmachining removed from the premises and ceased their washing operation. There is no waste flow from the building except the sanitary waste from the toilet facilities. At the same time the drain in the garage floor was sealed and all on site preventive maintenance on trucks ceased. A contract for truck maintenance was given to P & M Central Fleet Services of Hauppauge, New York.

The industrial waste pools at the rear (south) of the building will be abandoned in accordance with the procedures established by the County of Suffolk Department of Health Services, at the time the pools are abandoned they will be informed to inspect the work as to conformity with their standards.

Mr. Stephen Costa, P.E. of the County of Suffolk Department of Health Services has informed me that he will request samples to be taken from the sanitary pools at the north side of the building at regular intervals. I have agreed to this request.

Very truly yours,

Donald M. Hand, P.E.
Burton & Hand

DMH:dk

cc: Mr. Stephen Costa, P.E.
Mr. John Zambrano, P.E.
Mr. Daniel Larkin, P.E.
Mrs. Joan Sherb, Esq.

Theodore Snyder, P.E. ✓
Vincent Hand, Esq.
Serv All Cleaners



Appendix 1.1-25

1 of 2

PETER F. COHALAN
SUFFOLK COUNTY EXECUTIVE

DEPARTMENT OF HEALTH SERVICES

DAVID HARRIS, M.D., M.P.H.
COMMISSIONER

May 8, 1984

Burton & Hand
144 Medford Avenue
Patchogue, NY 11772

Attention: Donald Hand, P.E.

Re: Serv-All Cleaners Washing Machine Operation

Gentlemen:

I have received your letter regarding abandonment of Serv-All Cleaners washing machine operation.

In the letter you indicate that the industrial waste pools at the rear of the building are to be abandoned. In order to properly abandon the pools, any liquids remaining in the pools must be pumped out and hauled by an industrial waste scavenger. In addition, any accumulated sludge must also be hauled. After clearing the pools they may be filled with clean sand and gravel. The area should be paved to prevent any further leaching from contaminants which may remain. In addition, piping connecting these pools to the building must all be removed. An inspector must be present during the cleanout, filling and piping removal operations.

We would like to see this work completed as soon as possible. Please inform us of your schedule for this abandonment to continue. The pools should not remain for longer than ninety (90) days, if possible.

With regard to samples of the sanitary pools, it would be agreeable with this office for tetrachloroethylene and vinyl chloride analysis every other month by taking a grab sample. If these samples indicate compliance, the sampling frequency can later be changed.

May 8, 1984

2 of 2

If you have any questions or comments on this matter, do not hesitate to call.

Very truly yours,



Stephen A. Costa, P.E.
Associate Public Health Engineer

SAC:he

cc: J. Zambrano, P.E.
D. Larkin, P.E.
J. Scherb, Esq.
T. Snyder, P.E.✓
V. Hand, Esq.
J. Pim, P.E.
P. Perrella
Serv-All Cleaners

Hydrology of the Babylon-Islip Area Suffolk County Long Island, New York

Appendix 1.3-1
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By E. J. PLUHOWSKI and I. H. KANTROWITZ

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*



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 Sassafra 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 Sassafra 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 bedrock of Precambrian or early Paleozoic(?) age (table 1 and pl. 1). Directly overlying the bedrock is the Raritan Formation of Cretaceous age consisting of the Lloyd Sand Member and an unnamed clay

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	Fill 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.
			Magothy(?) Formation	Interbedded sand, silt, and clay.
Mesozoic	Cretaceous	Late Cretaceous	Raritan Formation	Clay member
			Lloyd Sand Member	Dominantly clay but may contain some silty and sandy zones locally.
Precambrian and early Paleozoic(?)			Bedrock	Sand, gravel, and interbedded clay and silt.
				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 reservoir.

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(Brice, Whitaker, and Sawyer, 1956, p. 32). Infiltration rates apparently depend chiefly on the interval between successive floodings, depth of water, and permeability of the basin surface. There are now more than 80 storm-water recharge basins in the Babylon-Islip area, and the number may be expected to increase as urbanization continues. The effectiveness of the basins as a means of recharging storm water to the ground-water reservoir from a suburban area is probably comparable to that of natural surface conditions prior to urbanization (Brice, Whitaker, and Sawyer, 1956, p. 2).

Public sanitary-sewer systems on Long Island discharge their effluent directly into tidewater. Because there are no such systems in the Babylon-Islip area (1961), theoretically all water withdrawn from the ground-water reservoir is returned to the ground. Two large sewage-leaching beds serve Pilgrim and Central Islip State Hospitals, and several smaller ones are at other institutions. The balance of domestic sewage is returned to the ground through cesspools. Water pumped for industrial purposes is usually returned through diffusion wells and cesspools. A small amount of industrial pumpage containing contaminants is discharged into tidewater to avoid pollution of ground-water supplies.

Artificial recharge in the Babylon-Islip area counters the effect of urbanization by restoring the natural rate of infiltration of precipitation through the use of recharge basins and by returning most of the water pumped.

Because it is not practical to measure directly the rate of recharge to the ground-water reservoir, recharge must be determined by indirect methods. An approximate value for recharge is obtained by subtracting evapotranspiration losses and direct runoff from precipitation. The recharge to the ground-water reservoir in the Babylon Islip area as determined by this method is:

	Approximate annual rate (inches)
Precipitation.....	46
Evapotranspiration.....	21
Direct runoff.....	1
Total water loss.....	22
Recharge to ground-water reservoir.....	24

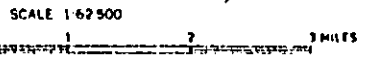
A recharge rate of 24 inches per year is equivalent to 1.1 mgd (million gallons per day) per sq mi or an annual total of about 215 mgd for the Babylon-Islip area. The bulk of this recharge occurs during late fall, winter, and early spring, when evapotranspiration is at a minimum.

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WATER-SUPPLY PAPER 1768
PLATE 1

EXPLANATION

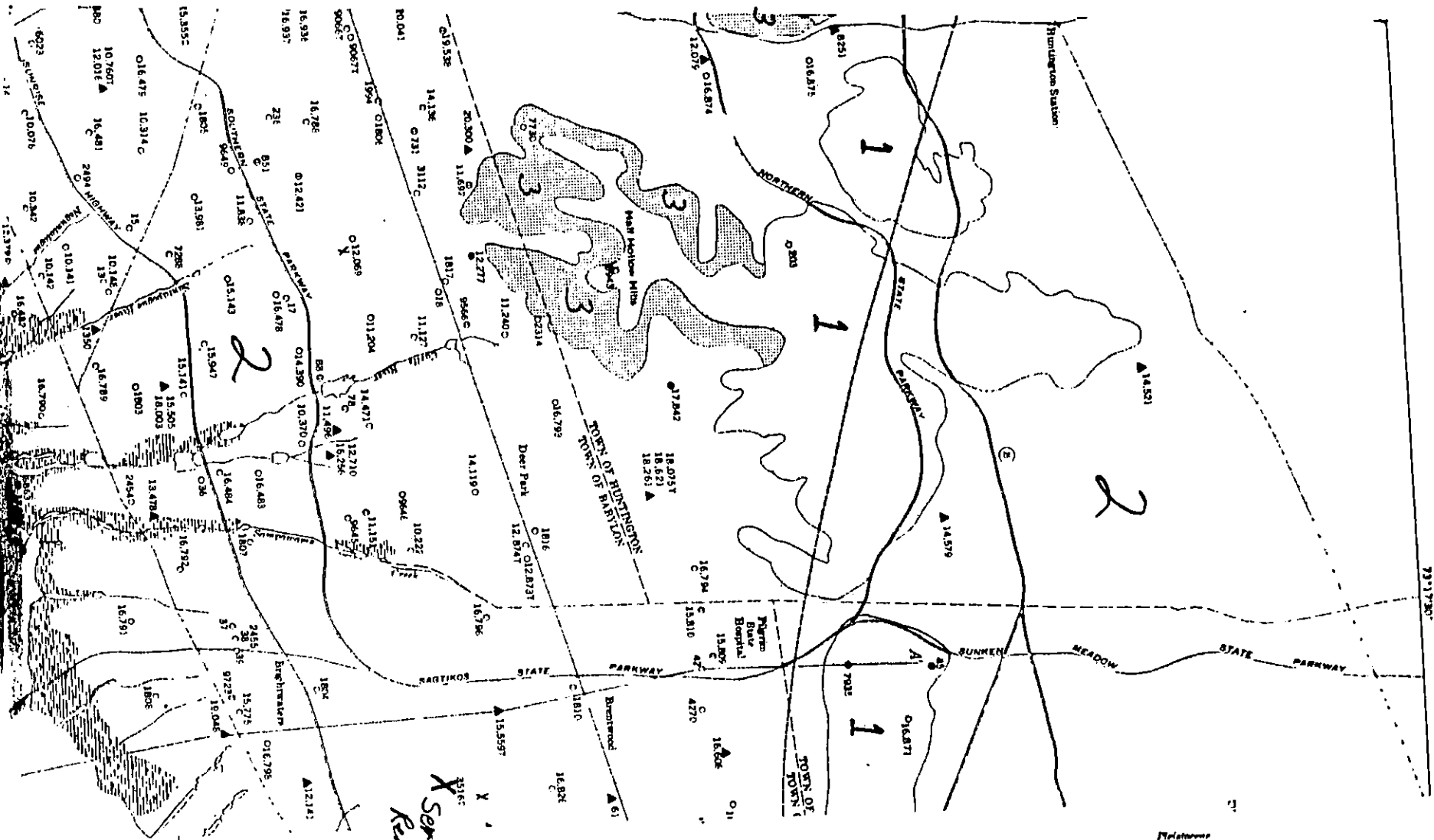
Quaternary	Tertiary
Marl deposits Beach deposits 2 3 Manhasset Gravel	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100



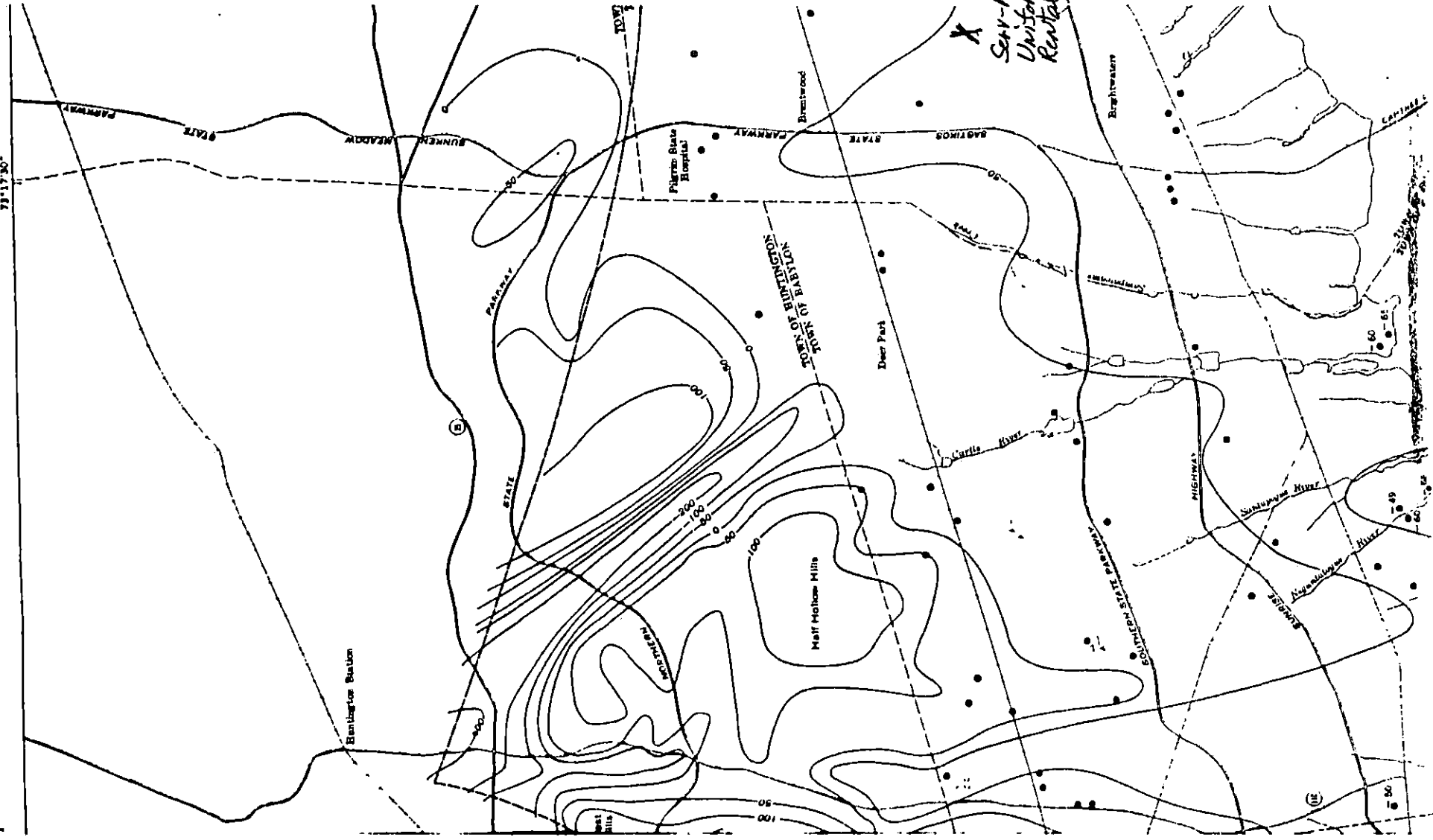
- Line of geologic section
- Well number (prefix S omitted)
- Test well
- Observation well
- Industry or institutional well
- Irrigation well
- Domestic supply well
- Public supply well
- Route 25 is approximate limit of map area

X Sew-All Uniform Rental Inc

MAP OF THE BABYLON-ISLIP AREA, SHOWING GENERALIZED SURFICIAL GEOLOGY, LOCATION OF WELLS, FROM FIRE ISLAND STATE PARK TO BRENTWOOD, SUFFOLK COUNTY, NEW YORK



5-985



MAP OF THE BABYLON-ISLIP AREA, SUFFOLK COUNTY, NEW YORK, SHOWING CONTOURS ON THE TOP OF THE MAGOTHY(?) FORMATION AND ALTITUDE OF THE TOP OF THE GARDINERS CLAY

EXPLANATION

- Structure contours drawn on top of Magothy(?) Formation
- Contours where doubtful. Interval is 20 feet
- See also section to north and east
- 70 -
- Well penetrating Magothy(?) Formation
- Shows altitude of top of Gardiners Clay
- Unpenetrated (the well reaches not farther)

GEOLOGY OF THE "20-FOOT" CLAY AND GARDINERS CLAY IN SOUTHERN NASSAU AND
SOUTHWESTERN SUFFOLK COUNTIES, LONG ISLAND, NEW YORK

By Thomas P. Doriski and Franceska Wilde-Katz

U.S. GEOLOGICAL SURVEY

Water-Resources Investigations Report 82-4056

This document was prepared by the U.S. Geological Survey under a contract with Suffolk County and Nassau County, New York pursuant to 40 CFR, Part 30 and Part 35, Sub. E of the Federal Water Pollution Control Act, Construction Grants. This project has been financed in part with Federal funds from the United States Environmental Protection Agency under Grant No. C-36-10365-04. The contents do not necessarily reflect the views and policies of the U.S. Environmental Protection Agency nor does the mention of trade names or commercial products constitute endorsement or recommendations for use.

Prepared in cooperation with the
NASSAU COUNTY DEPARTMENT OF PUBLIC WORKS, and the
SUFFOLK COUNTY DEPARTMENT OF HEALTH SERVICES



Syosset, New York

1983

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Table 1.—Summary of stratigraphy and correlative hydrostratigraphy of deposits underlying southern Nassau and southwestern Suffolk Counties, New York

System	Series	Age	Stratigraphic Unit	Hydrostratigraphic Unit	
QUATERNARY	Holocene	Postglacial	Holocene (recent) deposits	Upper glacial aquifer	
	Pleistocene	Wisconsin (upper Pleistocene)	Upper Pleistocene deposits		
			"20-foot" clay	"20-foot" clay	
			Upper Pleistocene deposits	Upper glacial aquifer	
		unconformity			
		Sangamon	Gardiners Clay	Gardiners Clay	
unconformity					
		Pre-Sangamon (Illinoian or Kansan)	Jameco Gravel ¹	Jameco aquifer ¹	
Quaternary and Tertiary, undifferentiated	Pre-Sangamon to Post-Cretaceous, undifferentiated		Reworked Matawan-Magothy channel deposits	Upper glacial or Magothy aquifer	
unconformity					
CRETACEOUS	Upper Cretaceous		Monmouth Group	Monmouth greensand	
			unconformity		
			Matawan Group-Magothy Formation, undifferentiated	Magothy aquifer	
		unconformity			
		Raritan Formation	Unnamed clay member	Raritan confining unit	
Lloyd Sand Member	Lloyd aquifer				
unconformity					
Precambrian			Bedrock	Relatively impermeable bedrock	

¹Present in Nassau County only

Two other interpretations are that (1) all units were deposited, then eroded, by a glacial meltwater stream of Wisconsin age, or (2) the valley was formed during the Cretaceous, so that the Monmouth Group and Gardiners Clay overlying it contain corresponding valleys. In either case, the Gardiners Clay would be discontinuous and not function as a confining layer in this area.

Monmouth Group

The Monmouth Group is a marine deposit of Cretaceous age that occurs along the barrier islands primarily in Suffolk County. Its upper surface altitude ranges from -70 to -165 ft NGVD (pls. 3, 4); thickness ranges from 0 to 200 ft. The Monmouth Group disconformably overlies the Matawan Group-Magothy Formation and is disconformably overlain by the Gardiners Clay. The Monmouth Group is typically a greenish-black glauconitic and lignitic clay, silt, or clayey to silty sand. A more detailed lithologic description of the Monmouth Group is given in Jensen and Soren (1974).

Jameco Gravel

The Jameco Gravel, a stream deposit, is pre-Sangamon, possibly of Illinoian or Kansan age (Soren, 1978). It occurs primarily in Queens County but extends into the extreme southwestern part of Nassau County, where its upper surface altitude ranges from -80 to -140 ft NGVD (pls. 3, 4) and thickness ranges from 0 to 100 ft. It disconformably overlies the Matawan Group-Magothy Formation and is disconformably overlain by the Gardiners Clay. The Jameco Gravel is typically a dark brown and dark gray granule to cobble gravel. The depositional history and a more detailed lithologic description of the Jameco Gravel are given in Soren (1978).

Gardiners Clay

The Gardiners Clay is a marine deposit along the south shore of Long Island. In southern Nassau County and southwestern Suffolk County, its upper surface altitude ranges from -40 to -120 ft NGVD (pls. 3, 5); thickness ranges from 0 ft at the northern limit to 90 ft at the barrier islands (pls. 3, 6). The deposit disconformably overlies either the Matawan Group-Magothy Formation, the Monmouth Group, or the Jameco Gravel, depending on location, and is disconformably overlain by upper Pleistocene deposits.

The age of the Gardiners Clay exceeds 38,000 years, according to carbon-14 dating tests on oyster shells found in the unit at two localities in Nassau County (Swarzenski, 1963, p. 20). As a result of this dating, as well as the stratigraphic position of this unit, the Gardiners Clay has been considered to be of Sangamon age (Soren, 1971, p. 15).

The Gardiners Clay is typically grayish-green to gray and contains a few sand and silt beds, which generally make up less than 10 percent of the total thickness of the unit in a specific area. The mineral assemblage commonly contains glauconite, quartz, muscovite, biotite, pyroxene, amphibole, and a complete clay mineral suite of illite, chlorite, mixed-layer clays, and minor

kaolinite (Lonnie, 1982). The clay also contains diatoms, foraminifera, shell fragments of pelecypods and gastropods, and peat. A more detailed discussion of the Gardiners Clay is given in Perlmutter and Geraghty (1963, p. A32-A35).

The surface of the Gardiners Clay in plate 5 is a revision of the areal-extent maps by Perlmutter and Geraghty (1963, p. 33A) and Jensen and Soren (1974). The major difference between plate 5 and those maps is the improved delineation of the unit's absence in long, narrow north-south channels along the south shore (pls. 5, 6). These absences probably correspond to areas of erosion by glacial meltwater streams and areas of nondeposition. Although the Gardiners Clay is generally continuous along the south shore, these areas are delineated because of their hydrologic importance in influencing the ground-water flow patterns. Where the clay is absent, the upper aquifer has good hydraulic connection with the lower aquifer; where the clay is present, the upper aquifer has poor hydraulic connection with the lower aquifer. This discontinuity and other discrepancies between plates 5 and 6 and earlier maps were determined through the 1978-79 drilling program and the correlation of unpublished well and test-hole data.

The thickness of the Gardiners Clay (pl. 6) is hydrologically important because it largely controls the water-transmitting property of the clay. The thickness of the formation increases southward to the barrier islands. In some areas along the south shore, the lower several feet of the Gardiners Clay may contain a sand or gravel facies. These facies are included as part of the clay unit in the geologic isopach map (pl. 6) but are not represented in the Geological Survey's ground-water model developed by Reilly and others (written commun., 1981) because they are not confining.

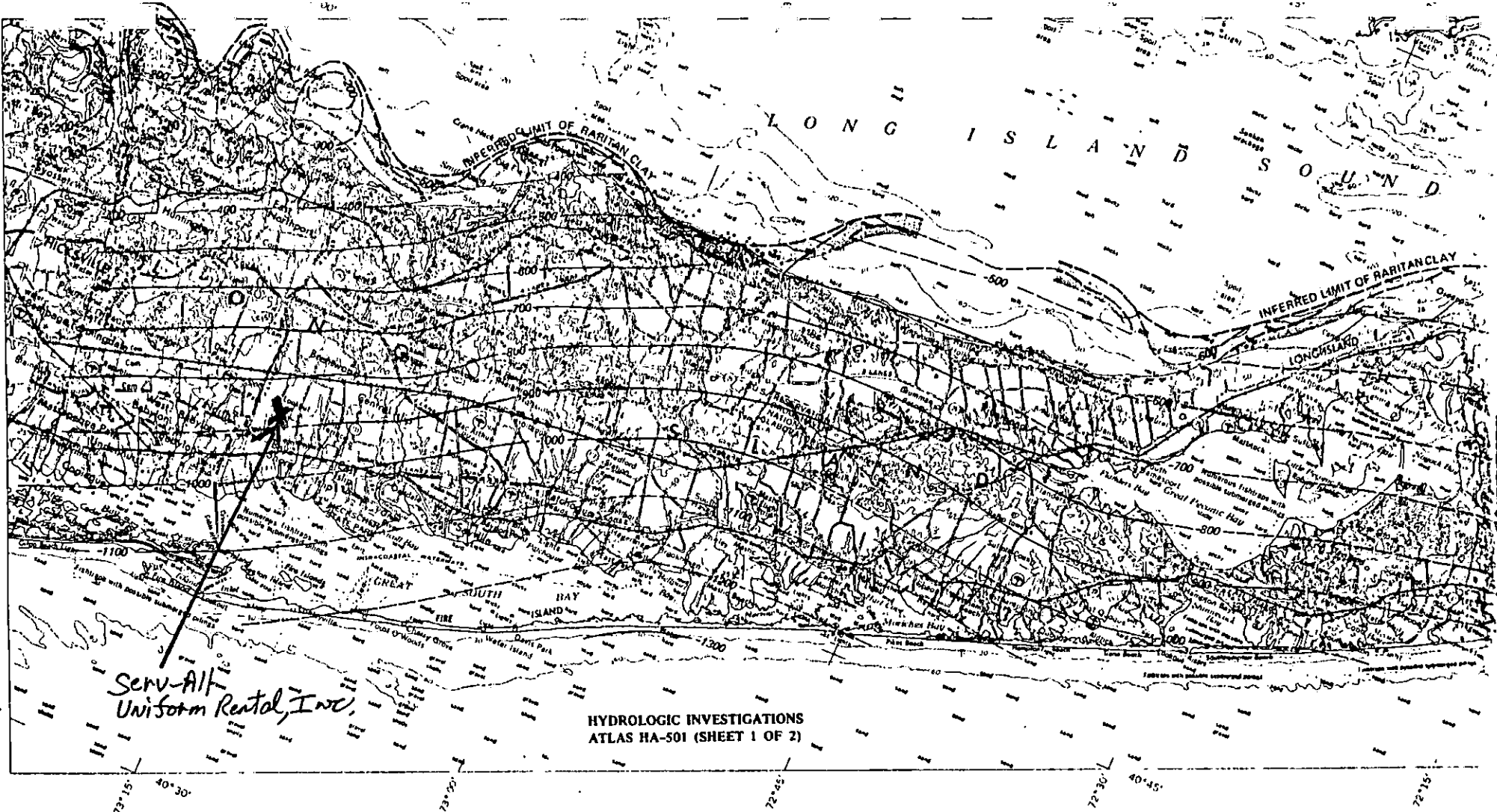
"20-Foot" Clay

The "20-foot" clay is a marine deposit within the upper Pleistocene deposits near the south shore. Its upper surface altitude ranges from -20 to -40 ft NGVD (pls. 3, 7); thickness ranges from 0 ft at the northern limit to 30 ft at the barrier islands (pls. 3, 8). The unit overlies upper Pleistocene deposits that range in thickness from 2 to 40 ft and is overlain by upper Pleistocene deposits. The "20-foot" clay was probably deposited during an interstadial period in the Wisconsin glaciation (table 1). The upper Pleistocene deposits underlying the "20-foot" clay are generally a light brown, fine to medium-grained sand (although drillers' logs report some gravel), and are considered to be outwash deposits. The deposits that overlie the "20-foot" clay are also outwash but, in general, are brown, coarser grained, and contain more gravel. The "20-foot" clay directly overlies the Matawan Group-Magothy Formation or Gardiners Clay at several locations where the upper Pleistocene deposits have been removed by erosion. (See pl. 3, well N-5227 near Jones Inlet.)

The surface of the "20-foot" clay in plate 7 is revised from the areal-extent map by Perlmutter and Geraghty (1963, p. 33A) and shows the discontinuity of the clay layer (absences of the unit in narrow, north-south channels) in greater detail. Previous reports do not indicate the "20-foot" clay to extend into Suffolk County, but data obtained during the 1978-79 drilling program indicate it to be present on the barrier island in Suffolk County (pl. 7).



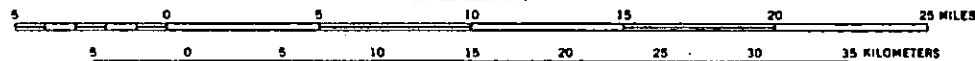
THICKNESS OF GARDINERS CLAY IN SOUTHERN NASSAU AND SOUTHWESTERN SUFFOLK COUNTIES, NEW YORK



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

MAP SHOWING ALTITUDE OF TOP OF RARITAN CLAY

SCALE 1:250,000



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

Prepared in cooperation with the
SUFFOLK COUNTY WATER AUTHORITY
and

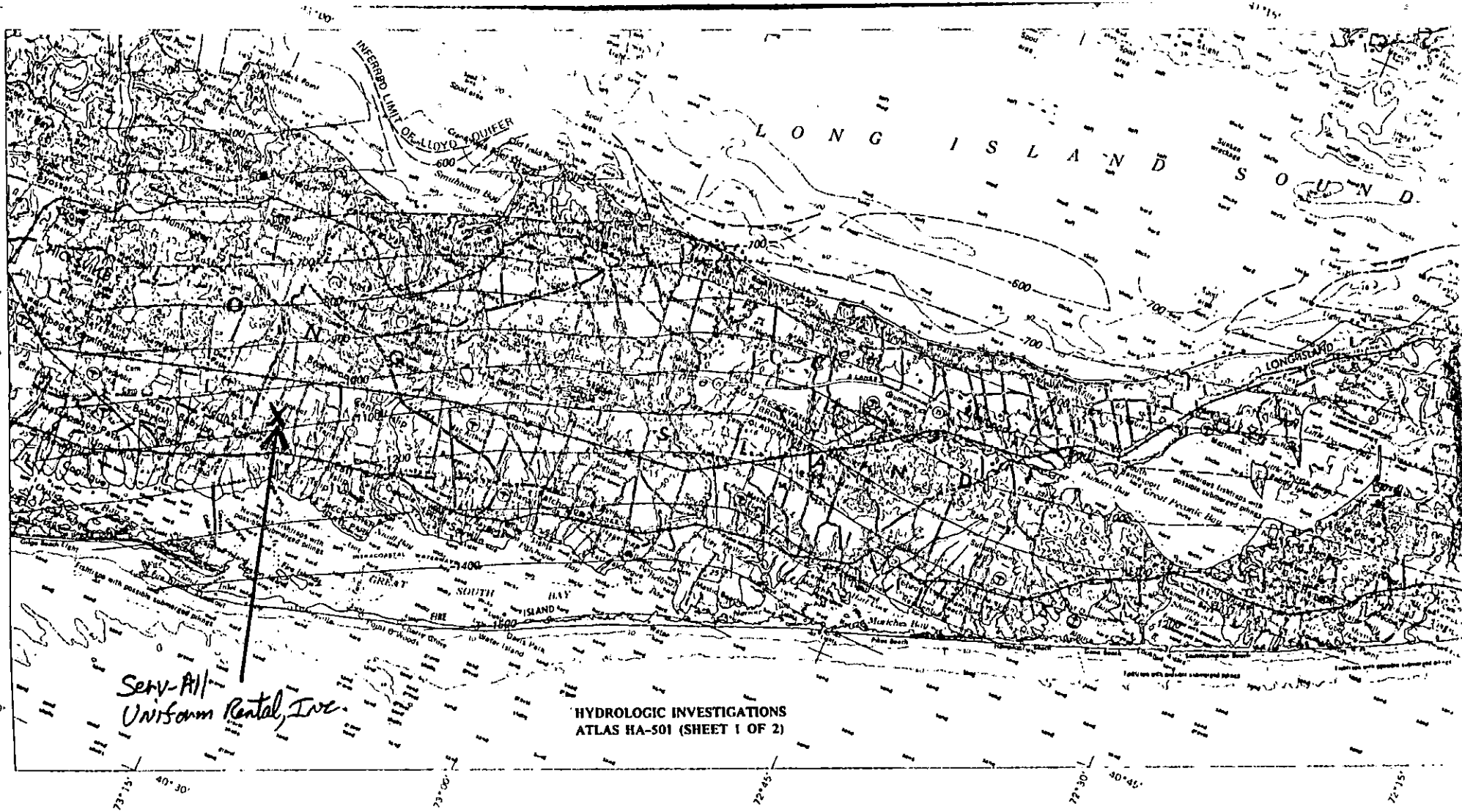
SUFFOLK COUNTY DEPARTMENT OF ENVIRONMENTAL CONTROL

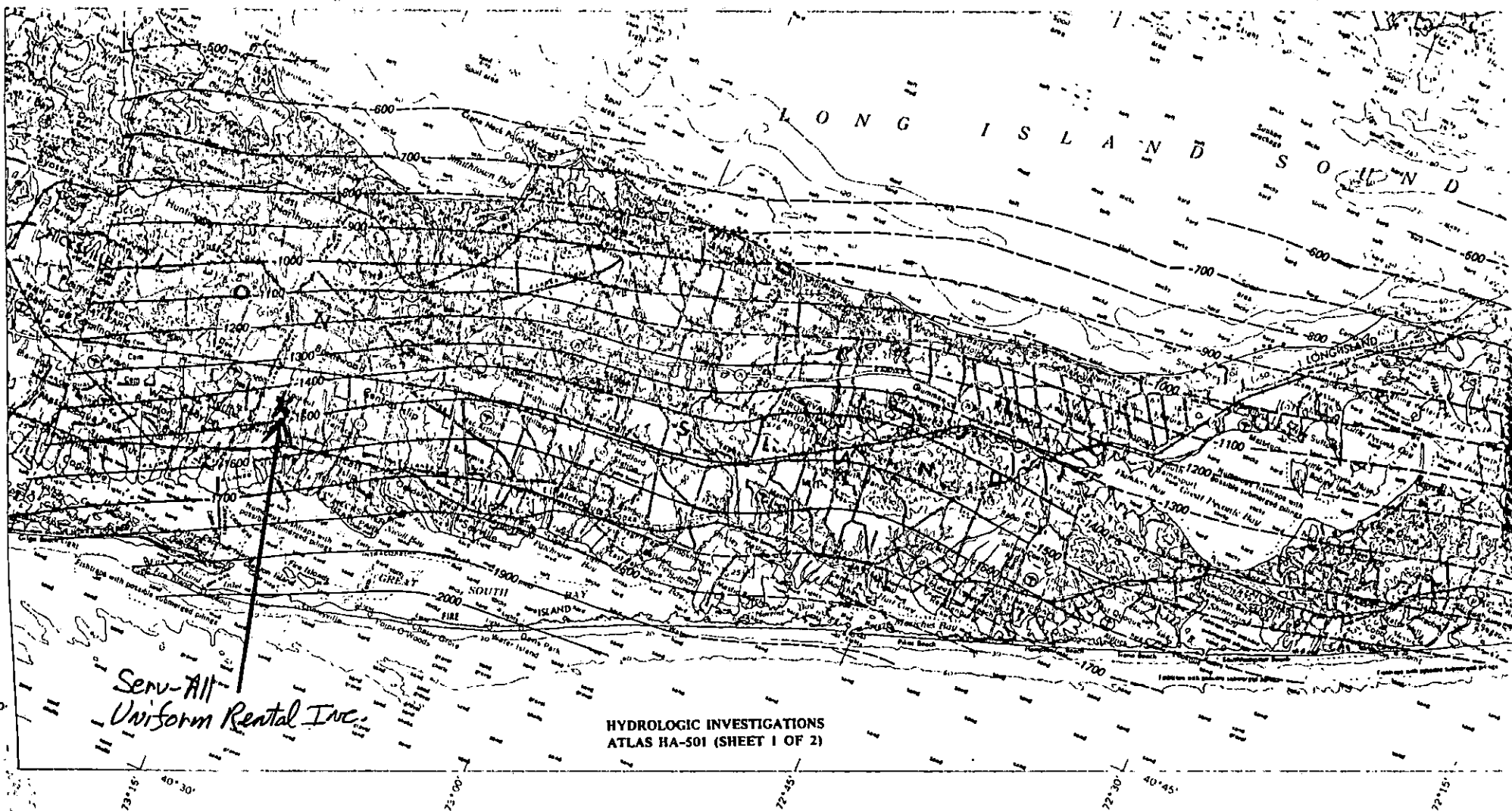
HYDROGEOLOGY OF SUFFOLK, COUNTY, LONG ISLAND, NEW YORK

By

H. M. Jensen and Julian Soren
1974

Appendix 1.3-3
1974





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

MAP SHOWING CONFIGURATION OF THE BEDROCK SURFACE

SCALE 1:250 000

0 5 10 15 20 25 MILES

0 5 10 15 20 25 30 35 KILOMETERS

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

Prepared in cooperation with the
SUFFOLK COUNTY WATER AUTHORITY
and

SUFFOLK COUNTY DEPARTMENT OF ENVIRONMENTAL CONTROL

HYDROGEOLOGY OF SUFFOLK, COUNTY, LONG ISLAND, NEW YORK

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1974

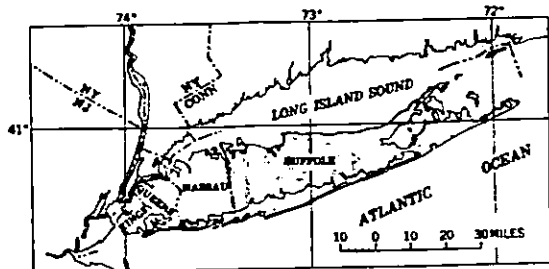
365

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INTRODUCTION

WATER NEEDS OF SUFFOLK COUNTY

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



INDEX MAP SHOWING LOCATION (SHADED)
OF SUFFOLK COUNTY

PURPOSE AND SCOPE

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

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

ACKNOWLEDGMENTS

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

GEOLOGIC AND HYDROGEOLOGIC UNITS

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

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

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

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

**LONG ISLAND WATER RESOURCES
BULLETIN NUMBER 1**

*Appendix 1.3-4
1 of 8*

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

**BY
JULIAN SOREN
U. S. GEOLOGICAL SURVEY**

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

**BY
PHILIP COHEN
U. S. GEOLOGICAL SURVEY**

**PREPARED BY
U. S. GEOLOGICAL SURVEY
IN COOPERATION WITH
SUFFOLK COUNTY LEGISLATURE
SUFFOLK COUNTY WATER AUTHORITY**

**PUBLISHED BY
SUFFOLK COUNTY WATER AUTHORITY**

1971

UPPER CRETACEOUS SERIES

Raritan Formation

Lloyd Sand Member

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

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

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

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

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

Clay Member

The clay member of the Raritan Formation (commonly referred to as the Raritan clay) completely covers the underlying Lloyd aquifer in the mid-island area, and confines water in that aquifer. The Raritan clay consists mostly of beds and lenses of light- to dark-gray clay, silt, and clayey and silty fine sand (table 1). Thin to thick sandy beds commonly occur in the unit from place to place, but these beds do not have great lateral extent. Laminae and thin beds of lignite and pyrite and disseminated particles of these substances are common in the clay beds of the unit. The thickness of the Raritan clay increases to the southeast, and ranges from about 150 feet in the northwestern part of the mid-island area to about 200 feet in the southeastern part.

The surface of the Raritan clay is roughly parallel to that of the underlying Lloyd Sand Member. The altitude of the surface of the Raritan clay ranges from about 300 feet below sea level in the northwestern part of the mid-island area, to about 1,050 feet below sea level in the southeastern part (pl. 3).

Matawan Group-Magothy Formation, Undifferentiated

The Matawan Group-Magothy Formation, undifferentiated, comprises the Magothy aquifer of Long Island. Deposits in this unit consist of beds and lenses of light-gray fine to coarse sand, containing traces to large amounts of interstitial clay and silt, intercalated with thin to thick beds and lenses of light- to dark-gray clay, silt, and clayey and silty sand (table 1). The clay and silt beds commonly contain laminae and thin beds of lignite. Disseminated lignite and pyrite also are common in the sand beds of the aquifer. Gravelly coarse sand is commonly found in the basal part of the aquifer. This coarse zone ranges in thickness from 100 to 150 feet west of the mid-island area to 150 to 200 feet in the mid-island area. The basal zone also commonly contains abundant interstitial clay and silt and many thin to thick beds and lenses of clay, silt, and clayey and silty sand.

The surface of the Magothy aquifer (pl. 4) is not planar as are the surfaces of the underlying units. The Magothy surface was deeply eroded during Tertiary time, and probably was considerably eroded in Pleistocene time. Consequently, the depth to the Magothy aquifer and the aquifer's thickness cannot be predicted as accurately as the depths and thicknesses of the underlying units. Many control points in addition to those already known are needed to accurately map the upper surface of the Magothy aquifer.

The highly irregular character of the surface of the Magothy aquifer is shown in plate 4. The upper surface of the aquifer ranges in altitude from as high as about 200 feet above sea level to as low as about 500 feet below sea level. The Magothy was completely removed by erosion in a buried valley near the South Huntington area, and in that area upper Pleistocene deposits lie directly on the Raritan clay. This buried valley was called the "Huntington buried valley" by Lubke (1964, pl. 3), and as mapped by Lubke, the valley extended about 2-1/2 miles south of the Northern State Parkway.

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

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

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

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

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

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

HYDRAULIC INTERCONNECTION OF AQUIFERS

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

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

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

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

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

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

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

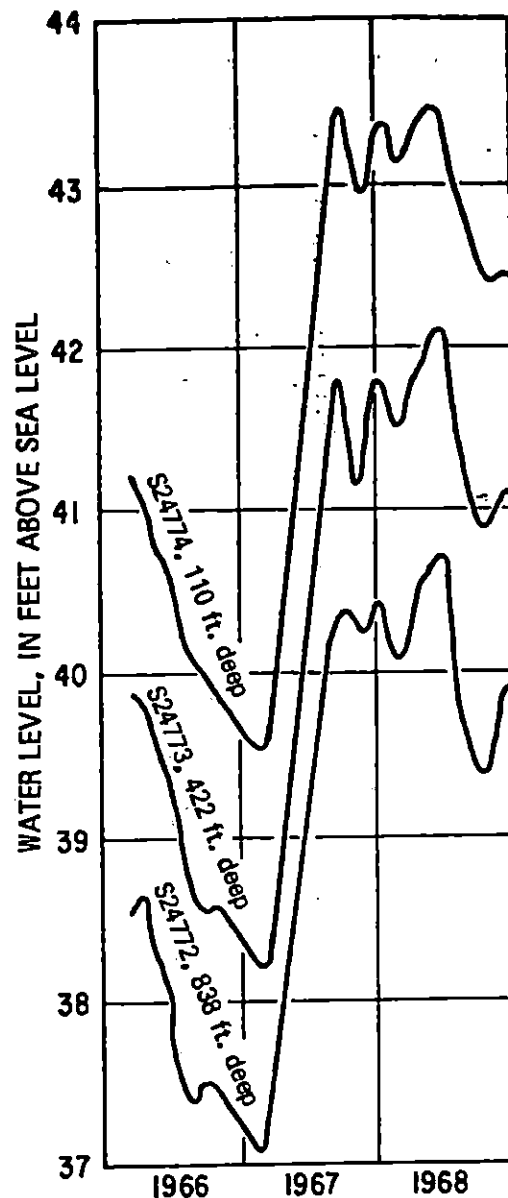


Figure 2.--Fluctuations of water levels in wells screened in the upper glacial aquifer and the Magothy aquifer at Brentwood, N. Y.

FLUCTUATIONS OF GROUND-WATER LEVELS

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

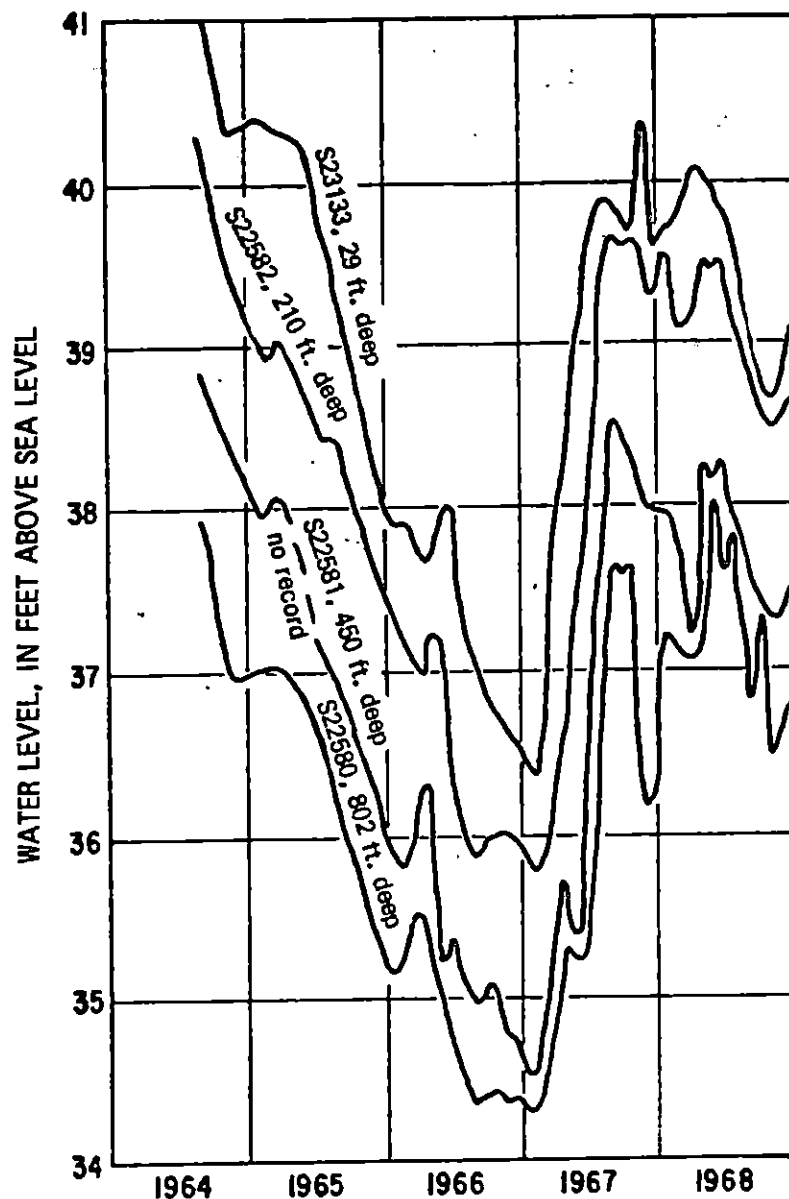


Figure 3.--Fluctuations of water levels in wells screened in the upper glacial aquifer and the Magothy aquifer at Hauppauge, N. Y.

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

Appendix 13-5
1969

ORIGINAL-TO COMMISSION
State of New York
Department of Conservation
Division of Water Power and Control
COMPLETION REPORT—LONG ISLAND WELL
Well No. S-18566 T
LOG
(on preliminary report)
Ground Surf. El. _____ ft. above sea
Top of Well _____ ft.

Owner Suffolk County Water Authority
Address Sunrise Highway-Oakdale, L.I., N.Y.
Location of well East Forks Rd., No. Bay Shore, L.I., N.Y.
Depth of well below surface _____ feet
Depth to ground water from surface _____ feet

Casings:
Diameter _____ in.
Length _____ ft.
Sealing _____
Casing removed _____
Openings _____
Diameter _____ in.
Length _____ ft.
Depth to top from top of casing _____ ft.

Pumping Test: Date _____
Test or permanent pump? _____
Duration of Test _____ days
Maximum Discharge _____ gallons per minute
Static level prior to test _____ ft. in below top of casing
Level during Max. Pumping _____ ft. in below top of casing
Maximum Drawdown _____ ft.
Approx. time of return to normal level after cessation of pumping _____ hours
minutes

Power Installed: _____
Type _____
Make _____
Model No. _____
H.P. _____
Capacity _____ gpm against _____ ft. of total head
No. bowls or stages _____
Suction Line: _____
Diameter _____ in.
Length _____ ft.

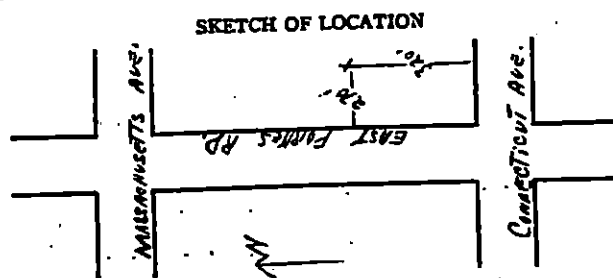
Use of water _____
Test Hole _____
Work started _____
Completed _____
Date _____
Drilled by Mathies Well & Pump Co., Inc.

License No. 153
Note: Show log of well—materials encountered, with depth below ground surface, water bearing beds and water levels in each, casing, screen, pump, additional pumping tests and other matters of interest. Describe repair job.
See Instructions as to Well Drillers' Licenses and Reports—pp. 5-7.

STATE OF NEW YORK
WATER RESOURCES
COMMISSION
APR 4 1969
RECEIVED

LOG
ATTACHED

209



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

Show North Point

Repair

5/24/71 Lajme - New pump installed. Depth to Water noted at 23' 11"

2/22/77 Shabo - New Screen as noted -

Well No. S-18566
SUPPLY WELL LOG
MATHIES WELL DRILLERS
UNDERWATER, N. Y.
WFCC No. 153

Job Suffolk County Water Authority
Address East Border Rd. No. Bay Shore, L.I.
Date Started _____ Completed February - 1960
Driller Mathies Well & Pump Co., Inc.
Diameter 8 In. Measured from Grade ☒ Yes ☐ No
Depth 653 Ft. In. Above _____ Ft. In. Below _____ Ft. In. Elevation _____ Ft.

625



STRATA

WELL CORP.

4 of 9

WELL LOG

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

B NAME SUFFOLK COUNTY WATER AUTHORITYLOCATION Locust Avenue No. 4W.R.C. WELL NO. S-67074REFERENCE PT. GradeS. W. L. 36'DATE STARTED June 14, 1979 COMPLETED Aug. 31, 1979 DRILLER Butler/Rybak

SAMPLE		Lgth	Blows	Formation	Thickness	Depth	Remark
or F	Actual No. Depth						
				Top Soil	2	2	
				Cse. brown sand, gravel, stones	48	50	
				Fine to cse. brown sand, mica & some grits	65	115	
				Fine brown sand and mica	65	180	
				Fine to cse. bn. sd., mica, grits & some gravel	10	190	
				Coarse sand, grits, gravel & lg. stones	5	195	
				Fi. to cse. bn. sd., hdpan, grits, gravel & lumps of yellow clay	23	218	
				Fine brown sand	82	300	
				Fine bn. sand & some stones up to 2 1/2"	12	312	
				Fi. to cse. bn. sd., grits, gravel and layers of green brown clay	32	344	
				Med. to cse. brn. sd., gravel, stones, iron oxide	9	353	
				Solid dark gr. clay, lig. and pyrite	31	384	
				Med. cse. grey sand, streaks of clay, lignite and pyrite	51	435	
				Fi. to med. gr. sand, mica, lig. & pyrite	21	456	
				Sandy dark grey clay	12	468	
				Fi. grey sand, pyrite, streaks of clay	6	474	
				Fi. grey silty sand, streaks of lignite	26	500	
				Fine grey sand, mica and lignite	25	525	
				Fi. to med. grey sand, mica, lig. & pyrite	10	535	
				Solid grey clay	3	538	
				Layers of sand and solid grey clay	3	541	
				Very fine grey sand and mica	6	547	
				Grey sandy clay, mica and lignite	13	560	
				Fine to med. grey sand, lignite	18	578	
				Sandy grey clay, streaks of lignite & pyrite	20	598	

RECEIVED

MAR 20 1979

N. Y. S. D. E. C.

REGULATORY AFFAIRS, REGION 1



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

WELL LOG

NAME SUFFOLK COUNTY WATER AUTHORITY
LOCATION Locust Avenue No. 4 W.R.C. WELL NO. S-67074
REFERENCE PT. Grade S. W. L. 36'
DATE STARTED June 14, 1979 COMPLETED Aug. 31, 1979 DRILLER Butler/Rybak

SAMPLE		Lgth	Blows	Formation	Thick- ness	Depth	Remarks
No.	Actual Depth						
				Fine grey sand	7	605	
				<u>Sandy light grey clay</u>	5	610	
				Fine grey sand	18	628	
				<u>Sandy dark grey clay</u>	2	630	
				Fine grey sand, streaks of clay	25	655	
				Fi. to med gr. sd., lignite, pyrite & lyr. clay	26	681	
				<u>Solid grey clay</u>	27	708	
				Fi. to med. grey sand, streaks lignite, pyrite	16	724	
				<u>Solid dark grey clay</u>	3	727	
				Fine to medium grey sand	9	736	
				Fine grey sand, streaks of clay & lignite	13	749	
				Fi. to csd. grey sd., streaks of clay & lignite	3	752	
				<u>Grey sdy. clay, streaks of pyrite & lignite</u>	8	760	
				Fine to csd. grey sd., grits & lignite	70	830	
				<u>Solid dark clay</u>		830	
HOLE TERMINATED 830'							
RECEIVED							
REG.							

ORIGINAL—TO COMMISSION

County Suffolk

State of New York

Department of Conservation

Division of Water Resources

Well No. 5-59347

LOG

Ground Surf., El. ft. above

^ ft.

v ft.

Top of Well

COMPLETION REPORT—LONG ISLAND WELL

Owner Suffolk County Water Authority

Address POND ROAD, CAROLE

Location of well Bay Shore Road, Bay Shore

Depth of well below surface 463'-5 3/4" feet

Depth to ground water from surface 15'-3 (8/1/77) 26'-5 1/2" feet

CASINGS:

Diameter 20" in. in. in. in.

Length 373' ft. ft. ft. ft.

Sealing 50' CONCRETE

Casings removed NONE

SCREENS: Make COOK 316 SS Openings #35 SLOT

Diameter 10" in. 1.0" in. in. in.

Length 70' ft. ft. ft. ft.

Depth to top ^{slot} from top of casing 388'-0" ft.

PUMPING TEST: Date 10/13/76 Test or permanent pump? TEST

Duration of Test days 8 hours

Maximum Discharge 1284 gallons per minute

Static level prior to test 30' ft. 6" in. below top of casing

Level during Max. Pumping 55' ft. in. below top of casing

Maximum Drawdown 34 1/2' ft.

Approx. time of return to normal level after cessation of pumping 12 hours minutes

PUMP INSTALLED:

Type DWT Make By Large OTHERS Model No. TLC

Motive power Elec. Make U.S. H.P. 100

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

No. bowls or stages 5 } 233 TDH ft. of total head

DROP LINE:

Diameter 10 in. in.

Length 90' ft. ft.

SUCTION LINE:

Diameter 10 in. in.

Length 9'-11" ft. ft.

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

Use of Water Public Supply

Work started 8/16/76 Completed 10/15/76 8/1/77

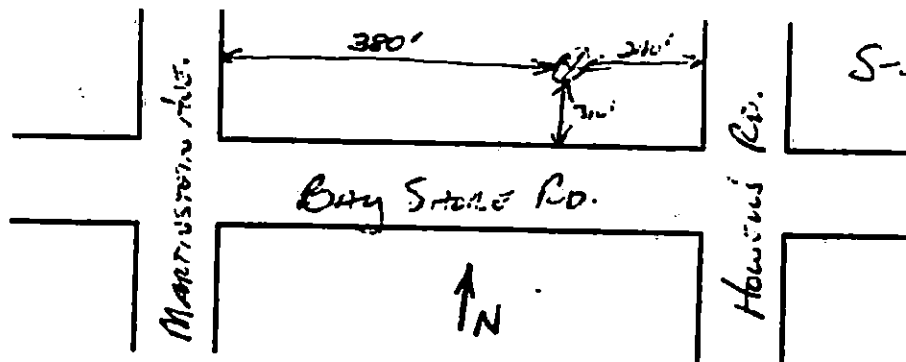
Date 10/31/76 2/25/77 Driller STRATA Well Corp. 101

License No. 1000 5

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

SEE ATTACHED

SKETCH OF LOCATION



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

Show North Point



STRATA

WELL CORP.

889

WELL LOG

2 Beach St.
ISLIP, N. Y. 11751
Phone 516 531-7100

NAME SCWA Bay Shore Rd.
LOCATION Bay Shore Rd., Islip W.R.C. WELL NO. 5-59347
REFERENCE PT. GRADE S. W. L. _____
DATE STARTED 8/16/76 COMPLETED 10/15/76 DRILLER BANKS, BUTLER, HEAT

C or	SAMPLE		Lgth	Blows	Formation	(Feet)	(Feet)	Remarks
	No.	Actual Depth				Thick- ness	Depth	
					Top Soil	2	2	
					CASE BR SAND, GRAVEL, STONES	33	35	
					MED - CASE BR. SAND, GRAVEL	15	50	
					MED FINE BROWN SAND	49	99	
					CASE BR. SAND, GRAVEL, CLAY	5	104	
					MULTI-COLORED CLAY, GRAVEL, IRON OXIDE	2	106	
					FINE - MEDIUM BROWN SAND	6	112	
					BROWN SANDY CLAY	2	114	
					LIGHT - MULTI-COLORED CLAY, STRS SAND	3	117	
					FINE BR SAND, STRS CLAY	13	130	
					FINE GRAY SAND, STRS of CLAY	40	170	
					MED CASE GRAY SAND, STRS LIGNITE	9	179	
					CSS GRAY SAND, DARK CLAY, LIGNITE	2	181	
					SOLID DARK CLAY	5	186	
					MED CASE GRAY SAND, STRS of CLAY	4	190	
					FI-MED GRAY SAND, MICA, LIGNITE	18	208	
					GRAY CLAY, STRS SAND, LIGNITE, MICA	2	210	
					FINE GRAY SAND, STRS CLAY, LIGNITE	21	231	
					GRAY CLAY, STRS SAND, LIGNITE	3	234	
					GRAY SANDY CLAY, STRS of SAND	4	238	
					FINE GRAY SAND, STRS of CLAY, LIGNITE	103	341	
					SOLID GRAY CLAY	15	356	
					FINE SAND, MUCH SMALL PYRITE, LIGNITE, CLAY BIT	2	358	
					SOLID LIGNITE, SMALL PYRITE, FINE SAND	1	359	
					FINE SAND, LIGNITE, PYRITE, CLAY	1	360	
					BLACK CLAY w/ PYRITE	4	364	Hard
					DARK GRAY CLAY, PYRITE	16	380	
					CASE GRAY SAND, STRS of CLAY, LIGNITE	76	456	



WELL LOG

2 Beech St.
ISLIP, N. Y. 11751
Phone 516 531-7100

NAME _____

LOCATION _____ W.R.C. WELL NO. 559347, Cont'd

ERENCE PT. _____ S. W. L. _____

TE STARTED _____ COMPLETED _____ DRILLER _____

SAMPLE		Lgth	Blows	Formation	Thick- ness	Depth	Remarks
No.	Actual Depth						
				FINE GRAY SAND, MUCH LIGNITE & PYRITE	3	455	
				FINE GRAY SAND, STRS CLAY, PYRITE	1	460	
				FINE GRAY SAND	1	461	CLT
				GRAY CLAY, STRS OF SAND	9	470	
				MED. COARSE GRAY SAND, CLAY, LIGNITE	45	515	
				FI-MED <u>VERY CLAYEY SAND</u>			
				HOLE TERMINATED AT 515'			

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

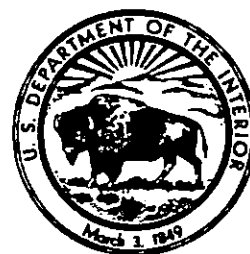
Appendix 1.3-4
1962

By E. R. LUBKE

CONTRIBUTIONS TO THE HYDROLOGY OF THE UNITED STATES

GEOLOGICAL SURVEY WATER-SUPPLY PAPER 1669-D

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



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

RECHARGE

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

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

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

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

MOVEMENT

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

WORKSHEET: COMMUNITY WATER SUPPLIES
WITHIN A 3-MI. RADIUS OF THE
SITE SERV ALLAUNDAY

Depth	Well	Third Ave.	Water District	Community Water Supply	Brentwood
130	115	130	130	130	130
115	115	115	115	115	115
512	512	512	512	512	512
753	753	753	753	753	753
140	140	140	140	140	140
436	436	436	436	436	436
755	755	755	755	755	755
608	608	608	608	608	608
666	666	666	666	666	666
634	634	634	634	634	634
128	128	128	128	128	128
130	130	130	130	130	130
611	611	611	611	611	611
119	119	119	119	119	119
117	117	117	117	117	117
383	383	383	383	383	383
306	306	306	306	306	306
731	731	731	731	731	731
600	600	600	600	600	600
721	721	721	721	721	721
713	713	713	713	713	713
667	667	667	667	667	667
463	463	463	463	463	463
460	460	460	460	460	460
455	455	455	455	455	455
465	465	465	465	465	465
623	623	623	623	623	623
233	233	233	233	233	233
308	308	308	308	308	308
718	718	718	718	718	718
116	116	116	116	116	116
116	116	116	116	116	116
116	116	116	116	116	116
119	119	119	119	119	119
288	288	288	288	288	288

SCUA

Bayshore - Enjoy Blvd.

Locust Dr.

E. Forks Rd.

Union St.

Thomas Ave.

Bayshore Rd.

Harvest Lane

Sunrise Highway

Barnes St.

WORKSHEET (cont.)

<u>Community Water Supply</u>	<u>Water District</u>	<u>Well Field</u>	<u>Well</u>	<u>Depth (ft)</u>	<u>Aquifer</u>
SCWA, Cont'd	Bay Shore, Cont'd	Barra St. 41st St.	5 S-54957	379	Magoth
			1 S-20603	110	Glacial
			2 S-26490	112	Glacial
			3 S-39406	106	Glacial
			4 S-45837	726	Magoth
	Fifth Ave.		5 S-64847	634	Magoth
			32 S-20566	775	Magoth
			33 S-26535	776	Magoth
			34 S-71038	592	Magoth
			1 S-40497	283	Magoth
	Babylon	Industry Ct.	2 S-46830	655	Magoth
			1 S-20045	140	Glacial
	Patchogue	Locust Ave.	2 S-22711	140	Glacial
			3 S-34522	149	Glacial
			4 S-67074	830	Magoth
			5 S-68690	824	Magoth

Sources:

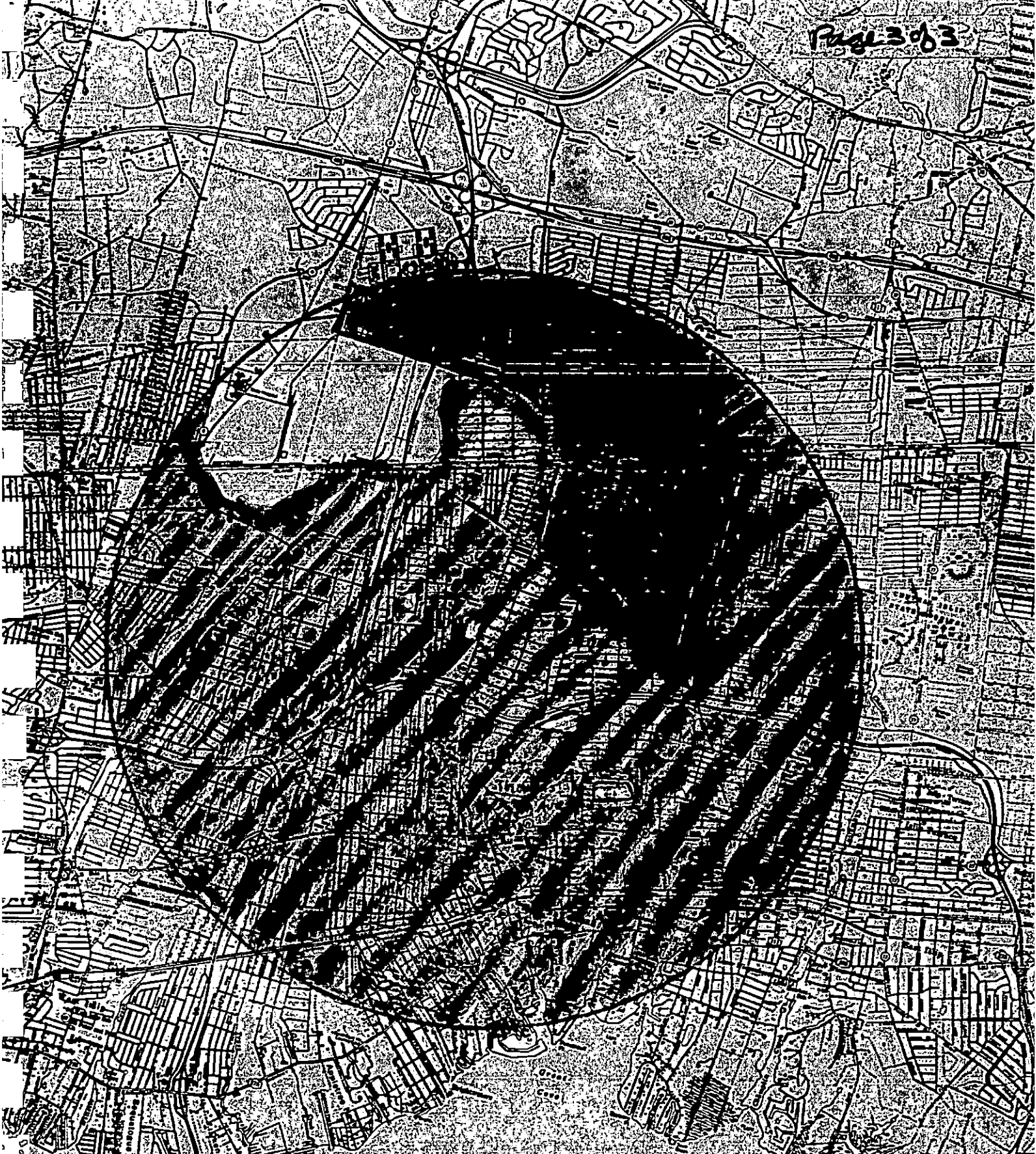
SCDHS. Water Resources Division. Supply and Monitoring Well Location Maps.

SCWA. 1984. Well Descriptions.

SCWA. 1985. Distribution System Plates. 4E, 5E, 3E, 3W, 4W, 5W, 40, 50.

SCWA. 1986. Active Services Estimates and Service Area Map.

Mr. BRANDO. 1986. Superintendent, Brentwood Water District. Personal Communication. 26 February.



Brickwood Water District
Service distribution
SCWA
Service
Distribution

Serv-All Landfill
Site

1" = 4 mile

152077

Appendix 1.5-1
Source: SCDHS. Supply
and Monitoring Well
Location Maps.

121

SCWA

PLYMOUTH ST

- 1 S-18261 (377)
- 2 S-18621 (201)
- 3 S-22548 (415)

SCWA

INDUSTRY CT

- 1 S-40497 (283)
- 2 S-46830 (654)

SCWA

E FORKS RD

- 1 S-13534 (119)
- 2 S-16176 (117)
- 3 S-18566 (376)
- 4 S-38162 (306)

SCWA

LOCUST AVE

- 4 S-67074 (830)

GREENLAWN

HUNTSMAN LN

- 12 S-23999 (610)

N
↑

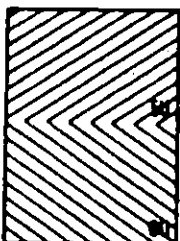
BOUNDARIES:

State
County
Town
City or Incorporated Village
Federal-aid approved Urban Area
Supplemental map enlargement limit

ROADS:

Interstate route... Divided highways:
 Mall more than 25 feet ...
 Mall 25 feet or less ...
U. S. route ... Undivided highways:
 4 or more lanes ...
 2 or 3 lanes ...
State route ... Private roads
County Road ...
State Highway number and limit 9240 /

INDEX TO
1:9600 (1" = 800')
ENLARGEMENTS



Urban Planimetric
Map

No. 40632 SU
 No. 40632 OU

Scale 1:24,000





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

EA SCIENCE AND
TECHNOLOGY

Appendix 1.5-2

OK

1 of 1

COMMUNICATIONS RECORD FORM

Distribution: ☒ File _____, () _____
() _____, () _____
() Author _____

Person Contacted: Mr. Brando Date: 26 February 1986

Phone Number: (516) 273-4565 Title: Superintendent

Affiliation: Brentwood Water District Type of Contact: Telephone

Address: _____ Person Making Contact: E. Bidwell

Communications Summary: The 2 wellfields in our studies pull from the
Magothy Aquifer. They own one other well and their system is fully
integrated. They currently have 6,500 hookups approximately 26,000 consumers.

They are in the process of installing a system in an Industrial Park. This
park will eventually house 150 buildings. The area is bounded on the north
by Pilgrim State Hospital, the east by Sagtikos State Parkway, the south by
Long Island Railroad and the west by Islip Town Line.

(see over for additional space)

Signature: Ellen Bidwell

SUFFOLK COUNTY WATER AUTHORITY
Oakdale, New York

ACTIVE SERVICES

December 1985

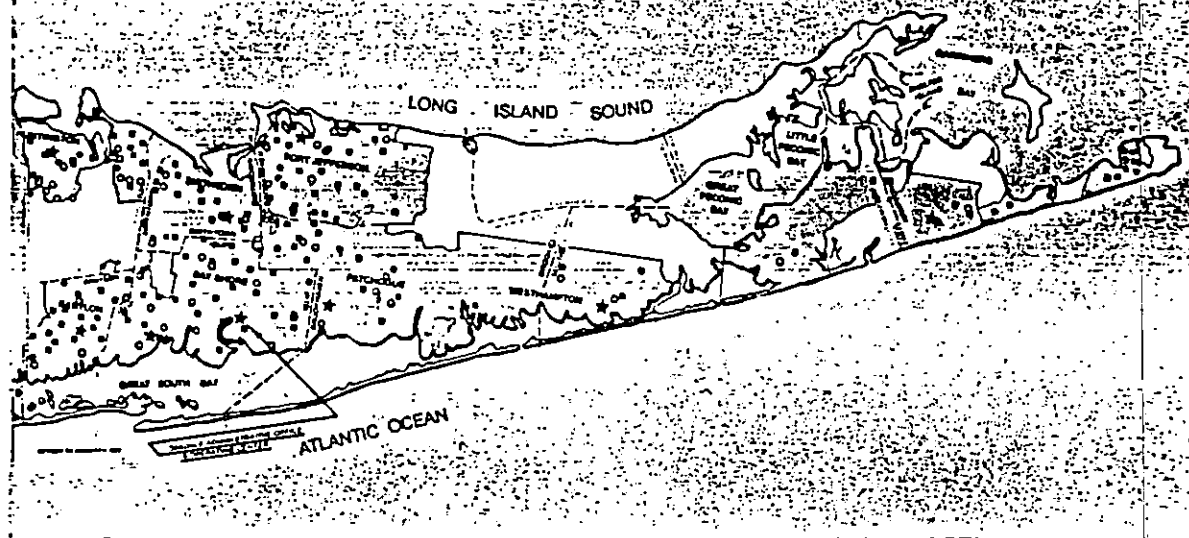
<u>DISTRICT OFFICES</u>	<u>1983</u>	<u>1984</u>	<u>1985</u>	<u>Increase or Decrease 1985/84</u>
BABYLON	53 647	53 995	54 655	660
BAY SHORE	46 846	47 269	47 830	561
PAJCHOGUE	49 408	51 412	55 104*	3692
HUNTINGTON	28 303	28 530	28 794	264
PORT JEFFERSON	32 881	33 524	34 440	916
SMITHTOWN	22 832	23 257	23 641	384
WESTHAMPTON	4 089	4 451	4 984	533
EAST HAMPTON	<u>10 245</u>	<u>10 523</u>	<u>10 841</u>	<u>318</u>
TOTAL FOR AUTHORITY	248 251	252 961	260 289	7328

*Includes 970 Active Services Acquired from
Shirley Water Works Co. 3/29/85

cc: Messrs. Hazlitt, Hanrahan, Sidoti, Schickler, Koehler, Dugan, Daly and Cannon
jh - 2/4/86

3/24

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

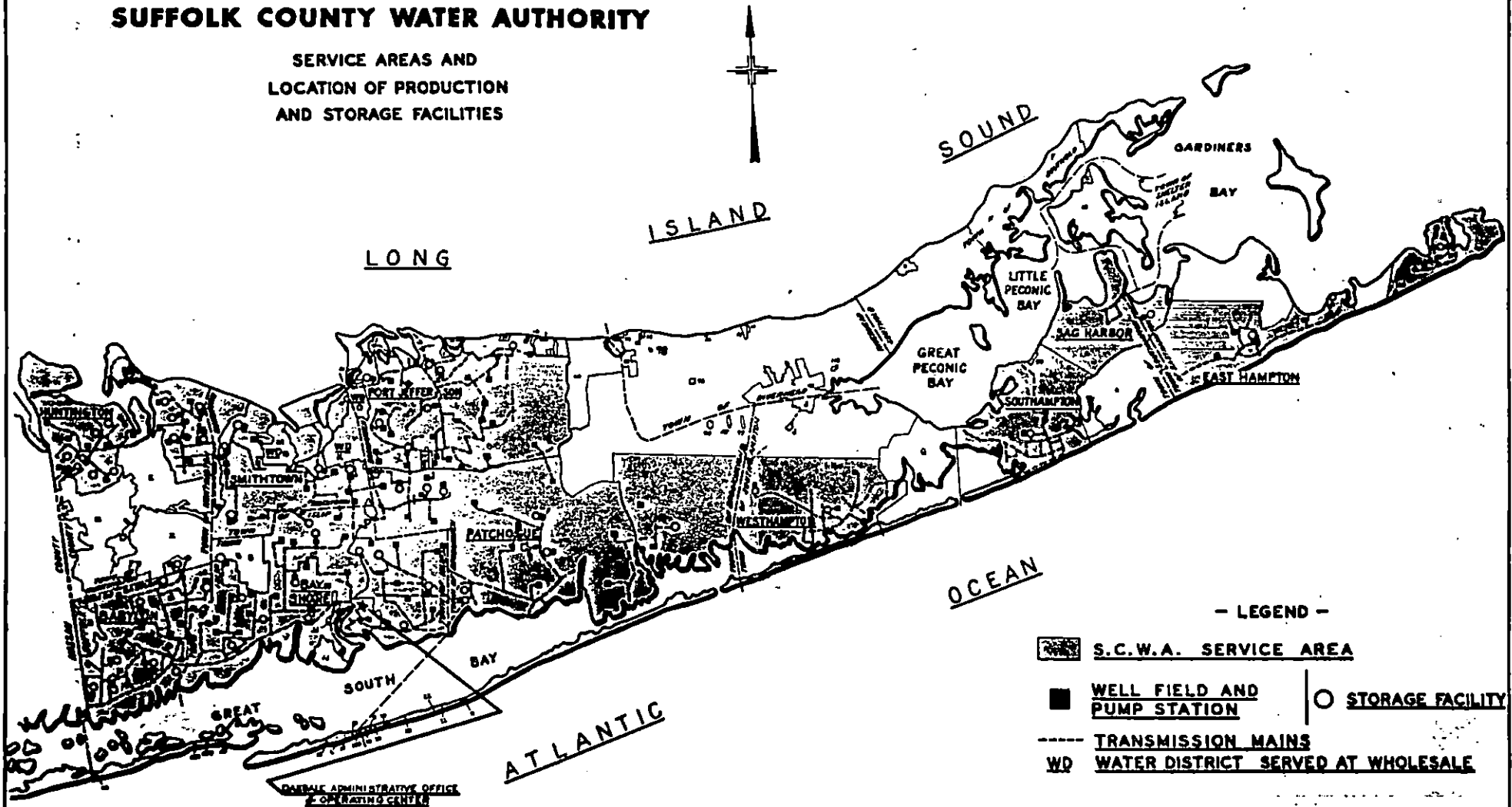
WESTHAMPTON DISTRICT

Center Moriches
 East Moriches
 Eastport
 East Quogue
 Moriches
 South Manor
 Quogue
 Quogue
 Westhampton
 Westhampton Beach

* Included in Wholesale Water District

SUFFOLK COUNTY WATER AUTHORITY

SERVICE AREAS AND
LOCATION OF PRODUCTION
AND STORAGE FACILITIES



- LEGEND -

-  S.C.W.A. SERVICE AREA
-  WELL FIELD AND PUMP STATION
-  STORAGE FACILITY
-  TRANSMISSION MAINS
-  WATER DISTRICT SERVED AT WHOLESALE

5 0 5
SCALE IN MILES

REVISED TO JANUARY 4, 1986



COMMUNICATIONS RECORD FORM

Distribution: () Suffolk Co. General Files
() _____, () _____
() Author

Person Contacted: Mr. Doug Pica Date: 4-7-86

Phone Number: 516 751-7900 Title: _____

Affiliation: NYSDEC Reg 1 Water Unit Type of Contact: Phone

Address: Stony Brook NY Person Making Contact: Bud Long

Communications Summary: I asked questions about irrigation practices on Long Island and about regulation of wells (irrigation supply).

Doug said DEC regulated wells that supplied irrigation water to golf courses but did not regulate one farm supply well because they are exempted from regulation. He therefore has no info on farm land irrigation sources.

(see over for additional space)

Signature: William Long



United States
Department of
Agriculture

Soil
Conservation
Service

127 East Main Street
Riverhead, New York 11901

Appendix 1.5-5

RECEIVED March 11 1986

10f1

March 13, 1986

Mr. William L. Going, Manager
Environmental Assessment Studies
EA Science and Technology
R.D. 2, Box 91
Middletown, New York 10940

Dear Mr. Going:

This office has not compiled any information on the number of acres irrigated based on specific locations in Suffolk County. The 1982 Census of Agriculture estimates that 23,232 acres are irrigated on 500 farms, however, the specific locations of this acreage is not readily available.

The major source of irrigation water in Suffolk County is groundwater through wells. There are literally thousands of wells scattered throughout the county. To locate wells within a three mile radius of the inactive hazardous waste sites would be an impossible task.

Just to inventory the irrigated acres in proximity to these sites would be very time consuming. I do not have the manpower nor the time at present to accomplish such a task.

I would be more than willing to provide you with access to our aerial photographs, soil maps, topographic surveys and other technical information which might be helpful to you in making this inventory.

If you have any questions or I may be of further assistance, call me at 516-727-2315.

Sincerely,

Allan S. Connell

Allan S. Connell,
District Conservationist

*3/28/86 Mr. Connell says that the 23,232^{ac}/500 farms
represent the vast majority ... up to 90% ...
for Suffolk Co. and that I can assume
all irrigate ... so I will convert ag. land
on color plates (land use) to irrigated acreage.*



The Soil Conservation Service
is an agency of the
Department of Agriculture

SCS-AS-1
10-79



COMMUNICATIONS RECORD FORM

Distribution: () Suffolk Co. General () _____
() _____ () _____
() Author

Person Contacted: Mr. Dan Fricke Date: 4-7-86
Phone Number: 516 727 7850 Title: Coop Ext. Ag. Agent
Affiliation: Suffolk Co. Coop Ext. Assn. Type of Contact: Phone
Address: 264 Griefing Ave. Person Making Contact: Bud
Riverhead NY

Communications Summary: I asked Dan questions about
irrigation practices in Suffolk Co. is could Coop Ext.
identify sources of irrigation water (wells + surface)
and tell me for all irrigated ~~acres~~ acreage
which was in food production or dairy farms?

He said that all irrigation wells were supposed to
be registered with the state and that perhaps
SC.DHS had the maps to indicate location and number (#)
(Joe Bair?) or (Diane Carey)

* He said there was no surface water used for irrigation
on the Island.

He said that once we had located all the wells
within required distance of sites; we would have
to talk to Coop Ext about each well to find out
about the use of the land; very time consuming
process.

(see over for additional space)

Signature: William Goring



COMMUNICATIONS RECORD FORM

Distribution: () Suffolk Co. General Files
() _____, () _____
() Author

Person Contacted: Steve Carey Date: 4-7-86

Phone Number: 516 348 2893 Title: Chief

Affiliation: SCDHS Groundwater Section Type of Contact: Phone

Address: 225 Rte 10 Person Making Contact: Bud Goring
Hempstead, NY

Communications Summary: I asked him question about
source of irrigation water for farm land
in food production ---

Steve said well greater than
45 gpm were registered by NYSDER Reg 1
except that farms were mostly exempted.

He suggested I contact Doug Pica NYSDER
for information.

(see over for additional space)

Signature: William Goring

COMMUNICATIONS RECORD FORM

Distribution: (✓) FILE, () _____
() _____, () _____
() Author

Person Contacted: Charles Guthrie Date: 10/23/86

Phone Number: (516) 751-7900 Title: Regional Fisheries Manager

Affiliation: DEC - Region I Type of Contact: Phone

Address: NYSDEC-SUNY CAMPUS Person Making Contact: W.E. Waisala
BUILDING 40, Stony Brook, NY 11790

Communications Summary: South of Montauk Highway
Penataquit Creek is used for recreational
purposes -- some fishing and boating. Homes bordering the
creek have begun to develop docks/piers from which
fishing is done (especially portion of creek nearest to
The Sound). South of Montauk there is tidal influence and
most south shore streams have been dredged for use in harboring
boats

(see over for additional space)

Signature: Wendy Skidell

COMMUNICATIONS RECORD FORM

Distribution: () DEC 63A, () _____
() _____, () _____
() Author

Person Contacted: John Ozard Date: 3-6-86
Phone Number: 5184397486 Title: Sn. Wildlife Biologist
Affiliation: NYS DEC Type of Contact: Phone
Address: DELMAR NY Person Making Contact: W. Goings

Communications Summary: Called John for clarification of
the letter, dated 26 February 1986, regarding
"significant habitats" ---

Q. Don't see any reference to Federally listed Threatened or
Endangered spp. on any of the 42 site location maps
you sent back in your letter --- does this mean there
is no habitat of concern for these spp? A. yes ---
there is no critical habitat for (Federal spp) at any
of the sites being examined.

Q. Are all the wetlands on LI in the vicinity of our
sites (refer to location maps) "coastal" wetlands?
A. Yes. They all have varying amounts of salt being
that near the Sound or the Ocean, to be considered
coastal wetlands --- also refer to the ("National Wetlands") wetlands
marked in blue.

(see over for additional space)

Signature: William Goings

COMMUNICATIONS RECORD FORM

Distribution: () See All Laundry () _____
() _____ () _____
() Author

Person Contacted: Mr Tom Greene Date: 9/11/86

Phone Number: 516 224 5477 Title: Chief Fire Inspector

Affiliation: Town of Islip Type of Contact: Phone

Address: 1 Main Street Person Making Contact: Going
Islip NY 11751

Communications Summary: Site # NY 10 152077

Mr. Greene could not certify that the site was an imminent threat to the public from fire or explosion.

(see over for additional space)

Signature: William Going

LAND USE

~ 1981

Quantification and
Analysis of Land Use for
Nassau and Suffolk Counties

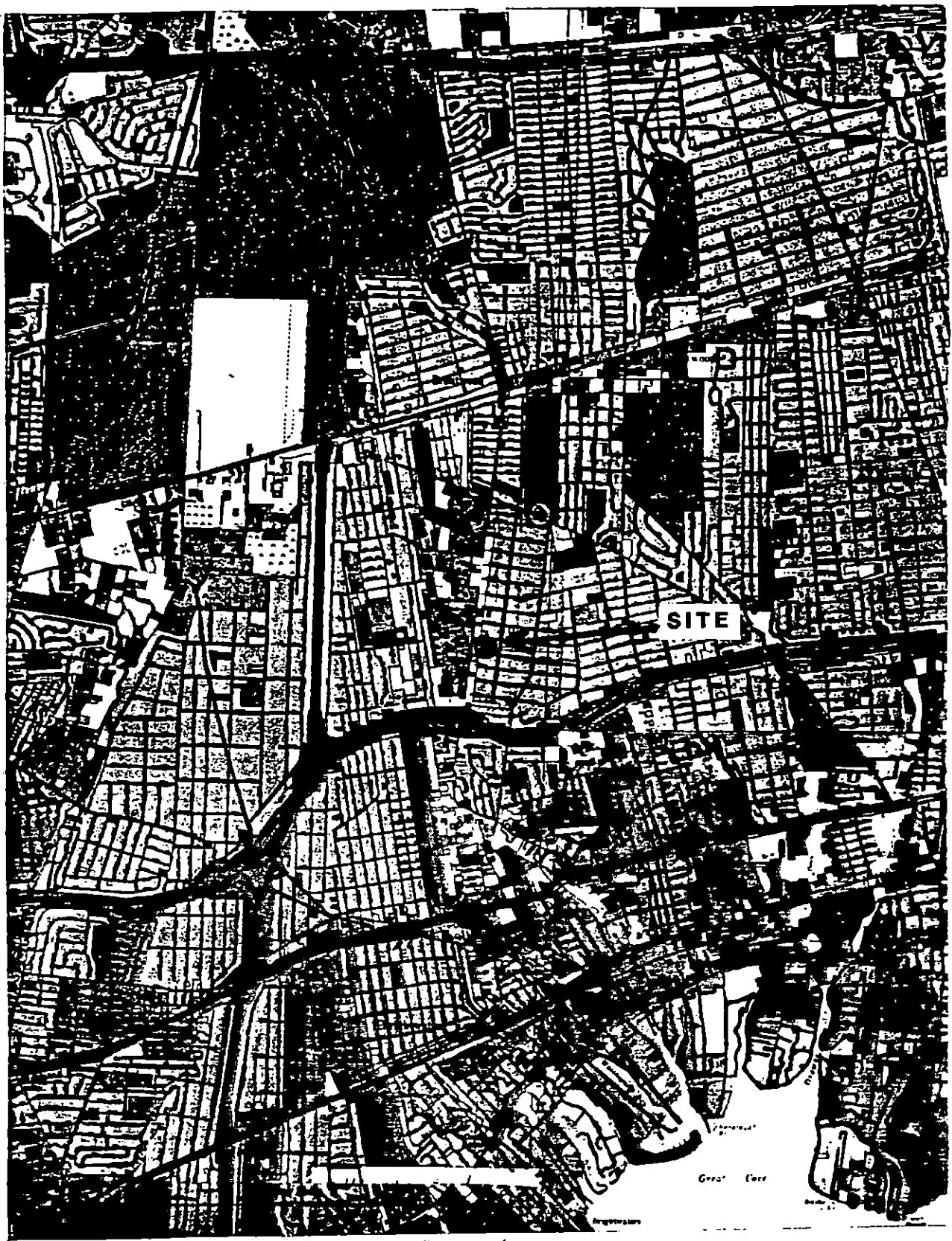
AREAWIDE
WASTE TREATMENT
MANAGEMENT

December 1982

Long Island Regional Planning Board

SERV-ALL LAUNDRY

N
↑



1" = 4650'

LEGEND

p. 3 of 3

RESIDENTIAL



1 D.U. & Less/Acre (low density)



2-4 D.U./Acre



5-10 D.U./Acre



11 D.U. & Over/Acre (high density)



Commercial



Commercial Recreation



Industrial



Institutional



Open Space & Recreational



Agricultural



Transportation & Utilities



Vacant

(47-15-11 (10/83)

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

DIVISION OF SOLID AND HAZARDOUS WASTE

INACTIVE HAZARDOUS WASTE DISPOSAL SITE REPORT

PRIORITY CODE: _____ SITE CODE: 152077
NAME OF SITE: Serv-All Laundry REGION: 1
STREET ADDRESS: 8 Drayton Avenue
TOWN/CITY: Islip COUNTY: Suffolk

NAME OF CURRENT OWNER OF SITE: Ralph Colantuoni, President, Serv-All Uniform Rentals, Inc

ADDRESS OF CURRENT OWNER OF SITE: 8 Drayton Avenue, Bayshore, New York, 11706

TYPE OF SITE: OPEN DUMP ☐ STRUCTURE ☒ LAGOON ☐
LANDFILL ☐ TREATMENT POND ☐

ESTIMATED SIZE: 0.46 ACRES

SITE DESCRIPTION:

The site is a commercial laundry/dry-cleaning establishment which, for a number of years, discharged washwater and sniffer condensate to leachpools without a valid SPDES permit. Leachpool sampling has shown high levels of heavy metals, tetrachloroethylene, vinyl chloride, and other organics. Serv-all has been identified as the probable source of a vinyl chloride plume which is moving southeast of the site.

HAZARDOUS WASTE DISPOSED: CONFIRMED ☐

SUSPECTED ☐

TYPE AND QUANTITY OF HAZARDOUS WASTES DISPOSED:

TYPE	QUANTITY (POUNDS, DRUMS, TONS, GALLONS)
<u>Tetrachloroethylene</u>	<u>unknown</u>
<u>Vinyl chloride</u>	<u>unknown</u>
<u>Other organics</u>	<u>unknown</u>
<u>Heavy metals</u>	<u>unknown</u>
_____	_____

TIME PERIOD SITE WAS USED FOR HAZARDOUS WASTE DISPOSAL:

_____, 19 79 TO _____, 19 83

OWNER(S) DURING PERIOD OF USE: Ralph Colantuoni, President, Serv-All Uniform Rentals, Inc

SITE OPERATOR DURING PERIOD OF USE: Same as owner

ADDRESS OF SITE OPERATOR: 8 Drayton Avenue, Babylon, New York 11706

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

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

SOIL TYPE: Sand and gravel.

DEPTH TO GROUNDWATER TABLE: 25 ft

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

NATURE OF ACTION: _____

ASSESSMENT OF ENVIRONMENTAL PROBLEMS:

Ground-water contamination.

ASSESSMENT OF HEALTH PROBLEMS:

PERSON(S) COMPLETING THIS FORM:

FOR NEW YORK STATE DEPARTMENT OF
ENVIRONMENTAL CONSERVATION

NAME EA Science and Technology
TITLE _____
NAME _____
TITLE _____
DATE: October 1986

NEW YORK STATE DEPARTMENT OF HEALTH

NAME _____
TITLE _____
NAME _____
TITLE _____
DATE: _____