FINAL
SITE INSPECTION PRIORITIZATION
U.S. ELECTROPLATING CORP.
BABYLON, SUFFOLK COUNTY, NEW YORK

PREPARED UNDER

REPORT NO.: 8003-450
WORK ASSIGNMENT NO. 038-2JZZ
CONTRACT NO. 68-W9-0051

NOVEMBER 13, 1995

VOLUME 2 OF 2

362567

V.D.: Documentation Records References

Camp, Dresser and McKee, 1985, Final Environmental Impact Statement for a Proposed Resource Recovery Facility, Babylon, New York.

Donnelly Engineering, 1982, Engineering Report of Pollution Abatement Project for U.S. Electroplating Corporation; West Babylon, New York.

Engineering Department, Suffolk County Water Supply, Personal Communication, July 12, 1989.

Ford, Bacon and Davis, 1971, Letter Report, Industrial Waste Disposal Method, U.S. Electroplating Corporation, New York.

New York State Department of Environmental Conservation, Review of Well Inventory Records, Stony Brook Office, conducted July 15, 1989.

New York State Department of Environmental Conservation, 1975, State Pollution Discharge Elimination System (SPDES) Discharge Permit, Application No. NY0084867, U.S. Electroplating Corporation, Albany, New York.

New York State Department of Environmental Conservation, 1980, Order on Consent issued to U.S. Electroplating Corporation, File No. 1-0675, Albany, New York.

New York State Department of Environmental Conservation, 1989, Letter Identifying Significant Habitats dated July 24, 1989.

New York State Department of Health, 1982, New York State Atlas of Community Water System Sources.

Nickerson, Paul, United States Fish and Wildlife Service, Northeast Regional Office, Personal Communication, November 23, 1989.

Sannick, Bill, Suffolk County Cooperative Extension, Agricultural Department, Personal Communication, August 9, 1989.

Suffolk County Department of Health Services, 1980a, Notification of Unsatisfactory Industrial Waste Sampling, dated February 27, 1980.

Suffolk County Department of Health Services, 1980b, Order on Consent, No. 1W-80-15, U.S. Electroplating Corporation, dated July 7, 1980.

Suffolk County Department of Health Services, 1981, Notice of Violation: NYS Environmental Conservation Law Dated February 17, 1981.

Suffolk County Department of Health Services, 1982a, Letter from SCDHS to U.S. Electroplating, dated October 19, 1982.

Suffolk County Department of Health Services, 1982b, Findings of Fact, Recommendations, Decision and Order Against U.S. Electroplating Corporation, date April 20, 1982.

Suffolk County Sewer Authority, Personal Communication, June 29, 1989.

United States Department of Agriculture, 1975, Soil Survey of Suffolk County, New York.

United States Department of the Interior, 1979, National Wetlands Inventory Maps, Amityville, Huntington, Green Lawn and Bay Shore West Quadrangles.

United States Geological Survey, 1979, Amityville, Huntington, Green Lawn and Bay Shore West, New York, 7.5 Minute Quadrangle.

Waller, Roger M., Kosyalka, Edward J., Snavely, Deborah S., 1985. New York Groundwater Resources. United States Geological Survey 1985, National Water Summary 1984. Hydrologic Events Selected Water Quality Trends and Groundwater Resources. U.S. Geological Survey Water Supply Paper 2275, pages 323-328.

Woodward-Clyde Consultants, 1983, Site Survey of U.S. Electroplating Corporation, Conducted by H. Gold on April 22, 1983.

Odgen Martin Systems of Babylon, Inc.

Final Environmental Impact Statement
for a Proposed Resource Recovery Facility
Babylon, New York

October 1985

CAMP DRESSER & McKEE
New York, New York

Subconsultants

Converse Consultants	- Groundwater Resources
Cavanaugh Tocci Associates, Inc.	- Noise
Edwards and Kelcey Engineers, Inc.	- Traffic
Historic Conservation and Interpretation, Inc.	- Historic Resources
Peter Freudenthal, Ph.D.	- Air

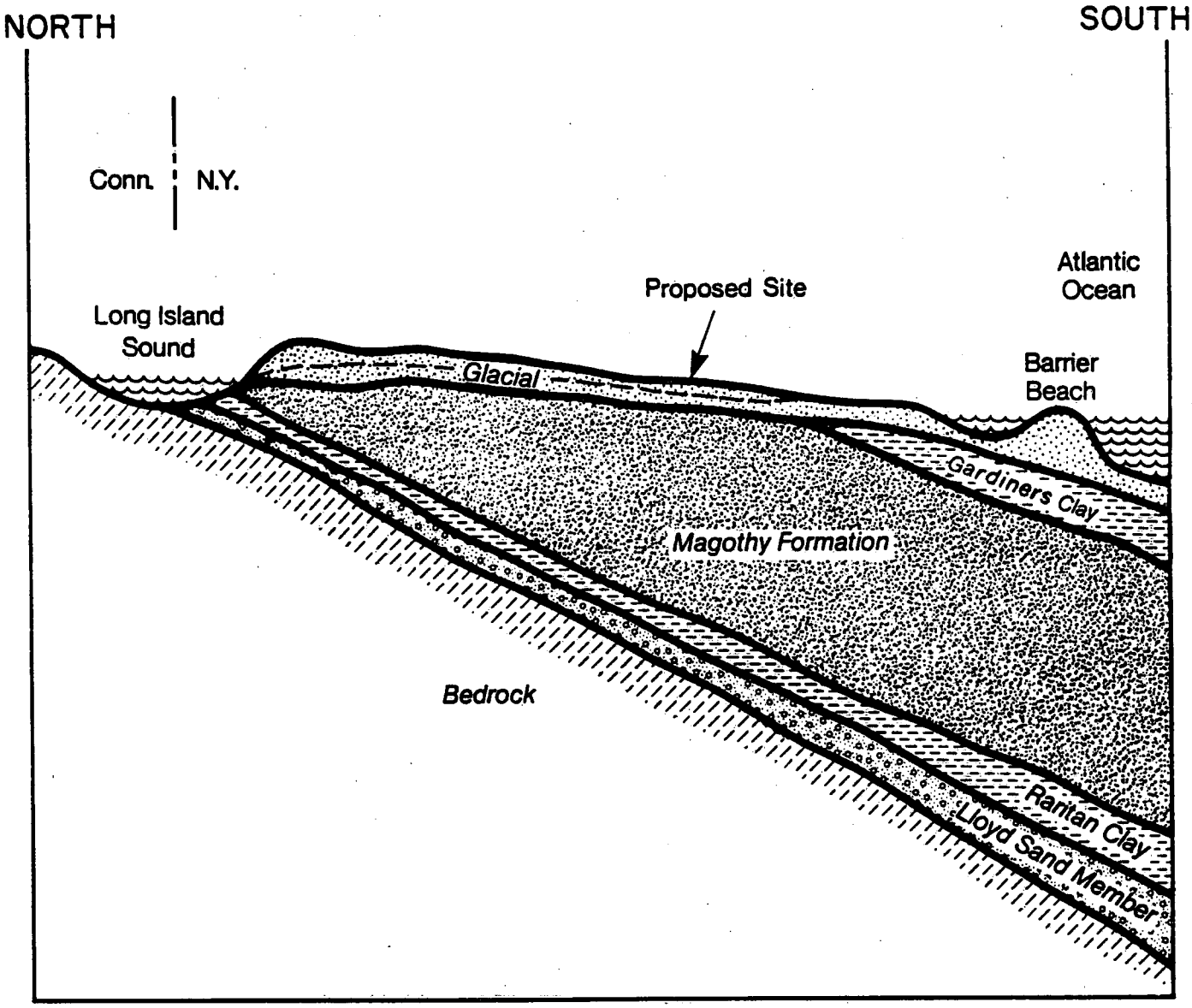
Section 4 continues the environmental assessment by evaluating impacts arising from the proposed project and the mitigation measures being proposed. Sections 3 and 4 contain the data on which other parts of the EIS analysis are based. Section 5 analyzes alternatives--comparing the predicted effects of alternative actions, sites, and technologies to the environmental impact predicted in section 4. Section 6 extracts only that set of environmental effects judged adverse and not susceptible to mitigation: the net, negative impact of the proposed project. Similarly, section 7 extracts only those effects that lead to irreversible and irretrievable uses of resources. In short, the sections that follow contain the detailed information needed for review and permitting. In general, other chapters interpret this information, highlight its findings, and draw conclusions.

3.1 GEOLOGY, TOPOGRAPHY AND SOILS

3.1.1 Geology

The Babylon area is underlain by over 1500 feet of unconsolidated sediments above crystalline bedrock. Directly overlying bedrock is the Raritan Formation, which is comprised of the Lloyd Sand aquifer and an unnamed clay member. Overlying the Raritan Formation is a thick sequence of Cretaceous Age sand and gravel deposits known as the Magothy Formation. These deposits form the major water producing aquifer in the project area. This formation is overlain by Quaternary deposits consisting of, from oldest to youngest, the Gardiners Clay, glacial outwash sand and gravel deposits, and recent deposits (see figure 3-3).

The Lloyd sand member reportedly forms a confined aquifer beneath the Raritan Clay member. The depth to the top of the aquifer is over 1000 feet and the aquifer achieves a thickness of about 150 feet.



LEGEND:

- GRAVEL
- SAND
- CLAY
- SANDY CLAY, CLAYEY SAND AND SILT
- SCHIST

NOT TO SCALE

RESOURCE RECOVERY FACILITY

Environmental Impact Statement

OGDEN MARTIN SYSTEMS OF BABYLON, INC.

Town of Babylon, New York

FIGURE 3-3

GEOLOGIC CROSS SECTION OF LONG ISLAND

CAMP DRESSER & McKEE

New York, NY

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The Magothy Formation is comprised of interbedded sand, silt and clay with some gravelly zones that are tapped by wells for public water supplies. The upper portion of the Magothy commonly includes interbedded clay, fine to medium sand, silt and some lignite, while the lower more permeable portion is largely coarse sand, gravel and some clay (H2M, 1982) The top of the Magothy is estimated to lie about 200 feet below ground surface in the project vicinity, attaining a thickness of about 550 feet (Jensen & Soren, 1971).

The Gardiners Clay is a marine interglacial deposit consisting of dark-colored clay, with lenses of green silt and very fine sand, and thin layers of fine gravel (Pluhowski and Kantrowitz, 1964). This formation reportedly has a thickness of 10 to 12 feet in the locality of the Babylon landfill and project vicinity.

The Upper Pleistocene deposits in the Babylon area are the result of meltwater streams flowing off the terminus of a retreating glacier of Wisconsin age. These outwash deposits consist of medium to coarse-grained sand with some cobbles, gravel, and clay lenses. The outwash deposits are about 90 feet thick at the Babylon landfill (Kimmel and Braids, 1980). In some places in the Town of Babylon, there are interbeds of clay and silt in the outwash which Jensen and Soren (1971) have correlated with the Gardiner's Clay.

3.1.2 Topography

Long Island is composed of low plateaus on the north side, east-west ridges of glacial moraine deposits through the central portion of the island, and gently sloping outwash plains to the south.

The numerous low plateaus on the north side are actually the erosional remnants of a single plateau, termed the Manhasset. This plateau is composed of glacial ground moraine that has been dissected by numerous glacial outwash and cross-cut meltwater channels.

South of the Manhasset plateau, the topography rises to an east-west ridge termed the Harbor Hill Moraine. This morainal ridge is the terminal lobe of an ice sheet that advanced after the deposition of the more southerly, and older, Ronkonkoma Moraine.

Within the study area, elevations range from 25 feet in the southeast corner near NY Route 27 and Belmont Lake State Park, to a high of about 100 feet near the Babylon Town Line and Long Island National Cemetery. Elevations are generally low (most areas are between 50-70 feet above MSL) in the central portion of the study area. Surface drainage is generally to the south.

The major topographic feature in the study area is the Town of Babylon Landfill adjacent to the proposed project site. The Town of Babylon Landfill covers about 85 acres. A 5 acre area on Gleam Street is occupied by two incinerators, a scale house, and a "scavenger" wastewater treatment plant, all of which are out of service. The general topography of the landfill site ranges in elevation from 190.7 feet above MSL at the top of the south hill (140.7 feet above the existing grade) to a low point of 10 feet above MSL adjacent to Patton Avenue. The site contains a manmade recharge basin located in the southwest corner of the landfill area. There is a valley between the north and south hill. The center of the western portion of the landfill site contains the existing incinerator structures.

The area where the proposed facility will be built is relatively level.

3.1.3 Soils

The U.S. Department of Agriculture, Soil Conservation Service (SCS), Soil Survey of Suffolk County, New York (April 1975) has identified the various soil types that are found in the study area. These soils can be divided into two groups: disturbed and undisturbed. These soil units have been given limitation ratings (slight, moderate, and severe) by the SCS for

onstruction material, building site development and
A rating limitation of "slight" indicates that the
vely free of limitations, or that the limitations are
oderate limitations need to be recognized, but they can
management and careful design. A "severe" restric-
the limitations make the use questionable, requiring
design. The following is a brief description of the
soil types (series) found in the study area.

ven series consists of deep, well drained, medium-
formed in a loamy or silty mantle over stratified
l. These soils are present throughout the county, but
wash plains between the two terminal moraines. The
soils present has slight restrictions for building
ranges from 4.5-5.5. The soil has moderate perme-
0.63 and 2.0 in/hr.

The Plymouth Series consists of deep, excessively
red soils that formed in a mantle of loamy sand or
s of stratified coarse sand and gravel. These nearly
are located throughout the county on broad, gently
ash plains and on undulating to steep moraines.
andiness, the series is typified by rapid to very rapid
20 in/hr). The soil has a pH of 4.5-5.5 and the soil
vere rating for building development.

The Riverhead Series consists of deep, well drained,
tured soils that formed in a mantle of sandy loam or
thick layers of coarse sand and gravel. These soils
county in rolling to steep areas on moraines and in
ing areas on outwash plains. They have a moderately
(2.0-6.3 in./hr) and a pH range of 4.5-5.5. The soil
light restrictions for building development.

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The disturbed soils in the study area are associated with cut and fill areas, most of which have been developed for residential, commercial, or industrial use, or for multi-lane highways and roads.

Other soil types identified in the study area are Made Land, Recharge Basins, Urban Land and gravel pits. Made Land is made up of areas that are covered with pieces of concrete, bricks, trash, wire, metal, and other nonsoil material. Gravel pits are open excavations that have been made for the purpose of mining sand and gravel. These pits range in depth from 8 or 10 feet to more than 100 feet. The sides of the pits are generally left nearly vertical, and bottoms are level.

An area of interest within the study area is the landfill site. Soil types that have been classified on the landfill site include gravel pits, Made Land, Haven Loam and Riverhead. Those soils classified are composed of gravel, sand, silt and clay. Specific stratifications are illustrated in appendix A. Due to the relatively severe slopes on the landfill, there is existing soil erosion from storm water runoff.

Site Soils

Predominant soil types that have been characterized on the project site are Made Land (Ma), Cut and fill land that is gently sloping (CuB) and Riverhead sandy loam with 0-3 percent slopes (RdA). This information was obtained from the 1975 Suffolk County soil survey. The soil cover has been altered since then due to construction and other activities.

Made Land (Ma)

Made Land is composed of areas that are mostly covered with pieces of concrete, brick, trash, wire, metal and other nonsoil materials. Some others are in large holes dug for disposal purposes. The proposed site is currently used for salvage operations. Due to the nature of present use it

is reasonable to state that this land, which is classified as disturbed, would not be significantly changed. This category of made land makes up about 20 percent of the total soil area of the facility site. This type of land is highly permeable (2.0 - 6.3 inches/hour). Because of the variable nature of this soil type no building limitations have been established. (United States Department of Agriculture, Soil Conservation Service (SCS), Soil Survey of Suffolk County, New York, April 1975).

Cut and Fill (CuB)

Cut and fill soils with level to gently sloping areas have been altered for the construction of landfill support structures. The "soil" on the proposed site that is classified as Cut and Fill makes up about five percent of the total soil area. The texture of this soil type is primarily loamy fine sand or coarser material.

This land type has virtually no limitations with respect to building development.

Riverhead Sandy Loam (RdA) 0-3% Slopes

As with other soils characteristic of outwash plains, Riverhead sandy loam generally occurs in large uniform expanses. It comprises up to 75 percent of the soil present at the proposed resource recovery site. Included within this mapping unit are areas of Haven and Plymouth soils having a texture of marginal to sandy loam and areas of soils that have a loam or fine sandy surface layer and a sandy subsoil. Riverhead sandy loam is very permeable (2.0 - 6.3 inches/hour). There is a slight limitation for building on this type of soil.

The primary limitation of this soil type is its lack of moisture. Shallow slopes tend to decrease the erosion potential (Holzmacher, McLendon and Murrell, P.C., 1982). Since the project site has little slope, erosion potential should not be significant.

3.2 GROUNDWATER RESOURCES

Hydrogeology and groundwater resources in the project study area have been studied by reviewing previous site investigations and published reports by the U.S. Geological Survey. These data were used to describe the existing groundwater conditions of the Babylon area.

3.2.1 Hydrology

Groundwater resources for this area are present in both the upper glacial surface aquifer and the underlying Magothy aquifer. These aquifers are separated by a low permeability clay layer, namely the Gardiners Clay.

The Magothy is a confined aquifer comprised of interbedded sand, silt and clay with some gravelly zones and is present throughout the project vicinity. Its thickness of 550 feet is completely saturated. The Magothy is highly productive, with the hydraulic conductivity of the Magothy aquifer ranging from an estimated 50 ft/day (McClymonds and Franke, 1972) to 500 ft/day (Pluhowski and Kantrowitz, 1964). The piezometric head of the Magothy attains almost the same height as that of the upper glacial aquifer above sea level.

The Gardiners Clay is considered relatively impermeable, and acts as a barrier to the downward movement of water because of its low hydraulic conductivity. A cross-sectional analog model study of Long Island (Franke and Getzen, 1976) indicated a vertical hydraulic conducivity of 0.01 ft/day for the Gardiner's clay. An inspection of driller's logs of public supply wells (which penetrate the Magothy) indicate that the Gardiners clay appears to be continuous. However, it is conspicuously absent in the logs of Well Number S9312 west of the site and Well #1 on 12th Street of the Suffolk County Water Authority. Therefore, its continuity is in question.

The upper glacial aquifer is comprised of permeable, unconsolidated sands and gravels which are present throughout the project area. This aquifer has a saturated thickness of about 75 feet. The upper glacial aquifer has a hydraulic conductivity in the range of 450 to 500 ft/day near the site of the proposed resource recovery facility (Kimmel & Braids, 1980). Depth to groundwater ranges from 12 to 18 feet below ground surface.

3.2.2 Leachate Plume

The proposed facility site is immediately adjacent to the Babylon landfill. A plume of leachate-enriched groundwater emanates from the Babylon landfill. An extensive investigation of the plume was conducted by Kimmel & Braids from 1971 to 1974. Ninety monitoring wells were installed at 40 sites. These wells along with 26 existing fire wells were sampled to obtain water quality data and to measure groundwater levels. Groundwater level maps were constructed so that the direction of groundwater flow could be estimated.

A tongue-shaped plume reportedly extends 10,600 feet downgradient from the landfill, is about 1,900 feet wide at the landfill, tapering to 700 feet at its south end, and is 74 feet thick (Kimmel & Braids, 1980, see figure 3-4). Kimmel assumed porosity of the upper glacial aquifer to be 30 percent and thus estimated the volume of leachate-contaminated water present within the Upper Glacial aquifer to be 2×10^9 gallons.

In 1981 Geraghty & Miller, Inc. conducted a study to detect changes in the plume's extent. Water samples were collected from Wells 4B, 90, and 29 which are located west, east, and south of the plume respectively,and are shown on figure 3-5. Analyses indicated that these wells were not influenced by plume contamination. Data from the monitoring program conducted by Braids and Saar (1982) showed that the plume had not changed appreciably in either chemical characteristics or areal extent from the time of the Kimmel and Braids study of 1974.

3.2.3 Groundwater Occurrence and Movement

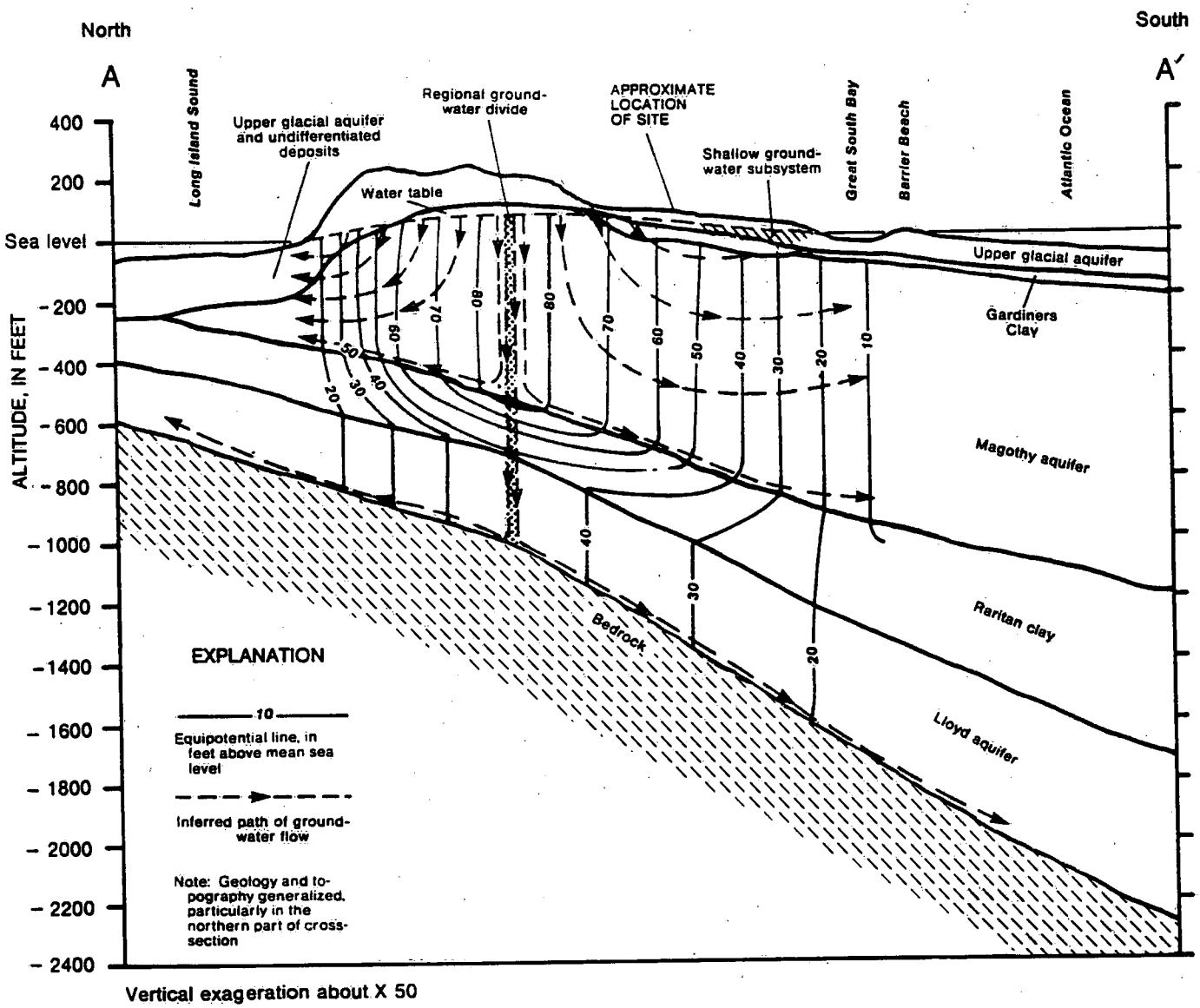
The proposed site is located south of a major "groundwater divide" that separates Long Island into predominantly north and south groundwater flow regimes as shown on figure 3-6. The position of this divide has been determined from maps by Pluhowski and Kantrowitz (1964). Downward flow occurs adjacent to the divide (a recharge area), while moving either north or south of the divide, groundwater flow becomes more horizontal until the shore is reached where groundwater discharge occurs (see figure 3-6).

The Clean Water Act Section 208 study of Long Island designated areas of vertical groundwater flow as direct recharge areas. Other areas are characterized by horizontal groundwater flow. The proposed facility site and landfill are outside of the current hydrogeologic boundary that separates vertical flow (deep flow zones I, II, & III) from horizontal flow regions.

Based on available well information, approximately 40 wells are present within a two mile radius of the Babylon landfill as shown on figure 3-7. In the site vicinity, ground surface elevations in the upper glacial aquifer are between 45 and 50 feet above mean sea level (see figure 3-8). The depth to groundwater varies between 12 and 18 feet in the project vicinity. The water table fluctuates with local recharge from precipitation and seasonal movement of groundwater.

The piezometric elevations in the Magothy aquifer are approximately the same as in the glacial water table aquifer as interpreted from maps by Pluhowski and Kantrowitz (1964). Where water table elevations exceed piezometric heads, downward flow is possible.

Groundwater flow in the upper glacial aquifer is nearly horizontal with a gradient of about 10 feet/mile (Kimmel & Braids 1980). Flow in the upper glacial aquifer is toward the south-southeast at rate of 1 to 3 feet/day (Kimmel & Braids, 1975) while flow in the Magothy is approximately 0.1 to 0.5 feet/day (Pluhowski & Kantrowitz, 1964).



0 5 10 MILES

Source: Franke And Cohen, 1972

RESOURCE RECOVERY FACILITY

FIGURE 3-6

Environmental Impact Statement

OGDEN MARTIN SYSTEMS OF BABYLON, INC.

GENERALIZED GROUNDWATER FLOW

Town of Babylon, New York

CAMP DRESSER & McKEE

New York, NY

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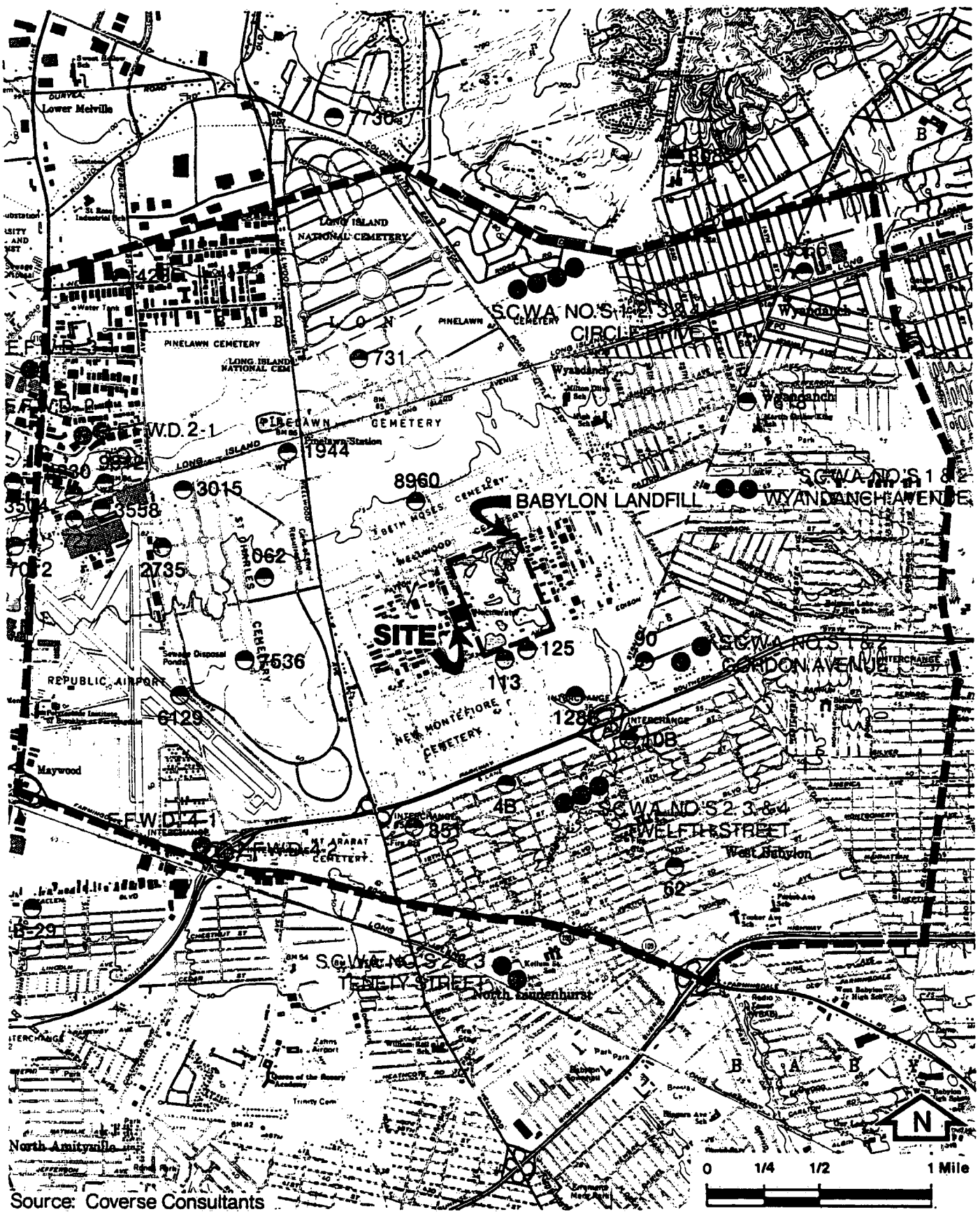


Source: Coverse Consultants

RESOURCE RECOVERY FACILITY

FIGURE 3-7

Environmental Impact Statement

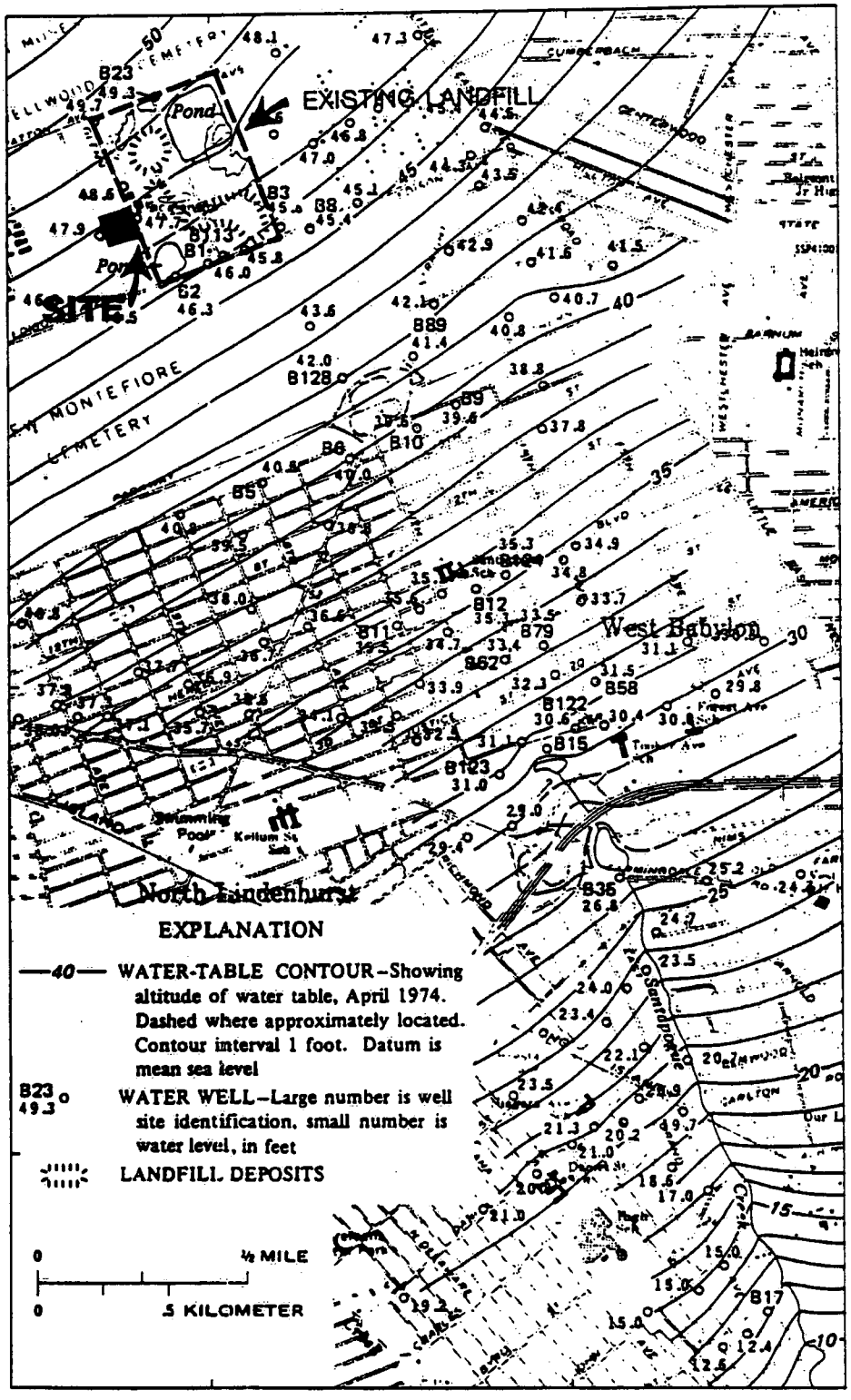
OGDEN MARTIN SYSTEMS OF BABYLON, INC.

Town of Babylon, New York

WELL LOCATION MAP

CAMP DRESSER & McKEE

219 New York, NY



Source: U.S. Geological Survey Professional Paper 1085

NOT TO SCALE

RESOURCE RECOVERY FACILITY

FIGURE 3-8

Environmental Impact Statement

OGDEN MARTIN SYSTEMS OF BABYLON, INC.

Town of Babylon, New York

WATER TABLE CONTOUR MAP

CAMP DRESSER & McKEE

220 New York, NY

ENGINEERING REPORT

OF

POLLUTION ABATEMENT PROJECT

SUFFOLK COUNTY DEPARTMENT
OF HEALTH SERVICES
HAZARDOUS MATERIALS MANAGEMENT

FOR
U.S. ELECTROPLATING CORPORATION
100 FIELD STREET
WEST BABYLON, NEW YORK 11704

JOB NO.: HM82-32

SUBMITTED TO
SUFFOLK COUNTY DEPT. OF HEALTH SERVICES

PREPARED BY
DONNELLY ENGINEERING
10 JEFFERSON AVENUE
ST. JAMES, NEW YORK 11780

APRIL 1982

PORATE OFFICER:

RENCE A. DONNELLY, P.E.

NYS 46645

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A. INTRODUCTION

This report is submitted to Suffolk County Dept. of Health Services (SCDHS) by Donnelly Engineering, on behalf of U.S. Electroplating Corporation. This report is in accordance with the agreement set forth between SCDHS and U.S. Electroplating Corporation at the hearing held at SCDHS on March 9, 1982. Representing SCDHS and in attendance at the hearing was Mr. Patrick Perrella. Representing U.S. Electroplating Corporation and present at the hearing was Mr.Robert Birnbaum, the owner and operator of U.S. Electroplating and Nicholas Andrianas of Donnelly Engineering as consultant to U.S. Electroplating Corporation.

In accordance with the agreement, U.S. Electroplating Corporaton is to do the following:

Excavate and expose covers on the three outdoor storage tanks located on the East side of the U.S. Electroplating facility. Remove covers on the storage tanks for inspection and verification by SCDHS that the tanks are not in use and that the tanks have been filled with clean soil.

Submit an engineering report addressing hazardous material tank storage; above or below ground, indoor or outdoor.

3) Submit a detailed factory layout and process description.

4) Submit an Engineering Report detailing actions taken to remove from service the outdoor hazardous material underground storage tanks.

5) Submit the Article XII application and plans for Article XII compliance.

6) Submit an Engineering Report explaining possible causes for cadmium and lead contamination in storm drains located on facility property. Corrective actions taken to prevent future contamination also to be addressed.

7) Have the storm drain, located adjacent to the facility garage door cleaned out by a licensed scavenger. Clean-out to be inspected by SCDHS.

This report addresses terms 2, 3, 4, 5 and 6

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B. TANK STORAGE

B.1 OUTDOOR STORAGE

There are three, concrete, outdoor, underground industrial wastewater storage tanks located on the East side of U.S. Electroplating Corporation. The tanks shown in the Plot Plan USE-01, were abandoned in February 1981 in accordance with Suffolk County Sanitary Code Article XII, Section 1210.flb. At that time, the industrial wastewater held in the tanks was pumped out by a licensed scavenger. The tanks were opened, cleaned and filled with clean soil. A single 4" dia. cast iron inlet pipe, was cut and capped with concrete, inside the U.S. Electroplating Corporation building. The location of this pipe is shown on the Factory Layout in the Appendix of this report. There is no other piping from the building to the outdoor industrial wastewater storage tanks.

Presently, there is no outdoor industrial wastewater tank storage, either above or below the ground. U.S. Electroplating Corporation has no plans for future construction of outdoor industrial wastewater tank storage.

3.2 INDOOR STORAGE

ill industrial wastewater generated by U.S. Electroplating Corporation is held for hauling in 55-gallon polypropylene containers. Approximately eight (8) containers are set within a certified 304 stainless steel spill containment pan. The pan is leakproof and measures 8'-0"x5'2"x1'5" high. The containers are filled in place. The wastewater storage is centrally located in the factory. All sides of the storage are easily accessible to facilitate handling and visual inspection. When the quantity of wastewater stored warrants disposal, a licensed scavenger is retained to pump out the containers and haul the wastewater.

lating process tanks are located in the factory area. The tanks are listed and identified in Section C of this Report. The tank locations are shown on the Factory Layout, USE-02.

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PROCESS DESCRIPTION

.1 Process Tank Identification

nk No.	Identification	Capacity(gal)
1	Non-Etch Cleaner (Alkaline)	200
2	Etch (Caustic)	200
3A	Static Rinse	50
3B	Static Rinse	50
3C	Static Rinse	50
4	Non-Alkaline Anodizer	400
5	Bichromate	250
5A	Static Rinse	40
6	Neutralization Tank	100
7	Dye	230
8	Static Rinse	230
9	Hot Water Seal	230
0	Bichromate	300
0A	Static Rinse	40
1	Zincate	75
13,14	NO TANKS IN PLACE	
5	Copper Cyanide	300
6	Static Rinse (Not in Use)	40
7	Static Rinse	40
3	Nickel Plating	400
9	Emulsion Cleaner (Detergent)	40

nk No.	Identification	Capacity(gal)
20	Static Rinse (Not in Use)	40
21	Static Rinse (Not in Use)	40
22	Potash Soak Cleaner	200
23	Static Rinse	40
24	Static Rinse	40
5	Reverse Electro Cleaner (Alkaline)	250
26	Reverse Electro Cleaner (Alkaline)	300
7	Static Rinse	40
8	Static Rinse	40
9	Static Rinse	40
0	Static Rinse	40
1	Hot Water Seal	175
2	Static Rinse	40
3	Static Rinse	40
4	Hydrochloric Acid	100
5	Cyanide Dip	75
6	Cadmium Plating	300
7	Static Rinse	40
8	Static Rinse	40
9	Cadmium Yellow Conversion (Acidic)	75
	Static Rinse	40
	Cadmium Clear Conversion (Acidic)	40
	Bichromate Conversion	100
	Not in Use	70

ank No.	Identification	Capacity(gal)
44	Tin Plating	200
44A	Static Rinse	40
45	Zinc Plating	250
46	Static Rinse	40
47	Static Rinse	40
48	Static Rinse	40
49	Static Rinse	40
50	Zinc Clear Conversion	75
51	Centrifugal Dryer	
52	Static Rinse	60
53	Zinc Barrel Plating	200
54	Cadmium Barrel Plating	200

.2 PROCESS DESCRIPTION

roc ss I - Aluminum Anodizing

ocess Step	Tank No.	Step Identification
1	1	Non-Etch Cleaning
2	2	Etch
3	3A	Static Rinse
4	3B	Static Rinse
5	3C	Static Rinse
6	4	Non-Alkaline Anodize
7	8	Static Rinse
8	9	Hot Water Seal
9 (Optional)	7	Dye

ocess II - Aluminum Bichromate Treatment

ocess Step	Tank No.	Step Identification
1	1	Non-Etch Cleaning
2	2	Etch
3	3A	Static Rinse
4	3B	Static Rinse
5	3C	Static Rinse
6	5 or 10	Bichromate Treatment
7	5A or 10A	Static Rinse
8	9	Hot Water Seal
9 (Optional)	7	Dye

Process III - Cadmium Plating

Process Step	Tank No.	Step Identification
1	19	Emulsion Cleaning
2	22	Potash Cleaning
3	23	Static Rinse
4	25	Reverse Electro Cleaning
5	24	Static Rinse
6	35	Cyanide Dip
7	36	Cadmium Plating
8	37	Static Rinse
9	39	Yellow Conversion
	or 41	Clear Conversion
10	40	Static Rinse
1	31	Hot Water Seal

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ces IV - Cadmium or Zinc Barrel Plating

ess Step	Tank No.	Step Identification
	19	Emulsion Cleaning
	22	Potash Cleaning
	23	Static Rinse
	25	Reverse Electro Cleaning
	24	Static Rinse
	35	Cyanide Dip
	53	Zinc Barrel Plating
	or 54	Cadmium Barrel Plating
	27 or 46	Static Rinse
	29 or 48	Static Rinse
	31	Hot Water Seal

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ocess V - Tin Plating

ocess Step	Tank No.	Step Identification
1	19	Emulsion Cleaning
2	22	Potash Cleaning
3	23	Static Rinse
4	25	Reverse Electro Cleaning
5	24	Static Rinse
6	34	Hydrochloric Acid Dip
7	44	Tin Plating
8	44A	Static Rinse
9	31	Hot Water Seal

cess VI - Nickel Plating

cess Step	Tank No.	Step Identification
1	19	Emulsion Cleaning
2	22	Potash Cleaning
3	23	Static Rinse
4	25	Reverse Electro Cleaning
5	24	Static Rinse
6	34	Hydrochloric Acid Dip
7	18	Nickel Plating
8	17	Static Rinse
9	31	Hot Water Seal

Process VII - Copper Plating

Process Step	Tank No.	Step Identification
	19	Emulsion Cleaning
2	22	Potash Cleaning
3	23	Static Rinse
4	25	Reverse Electro Cleaning
5	24	Static Rinse
6	15	Copper Plating
7	31	Hot Water Seal

Process VIII - Zinc Plating

Process Step	Tank No.	Step Identification
1	19	Emulsion Cleaning
2	22	Potash Cleaning
3	23	Static Rinse
4	25	Reverse Electro Cleaning
5	24	Static Rinse
6	45	Zinc Plating
7	46	Static Rinse
8	50	Clear Conversion
9	48	Static Rinse
10	31	Hot Water Seal

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D. STORM DRAIN CONTAMINATION

An explanation for the cadmium and lead contamination in the storm drains cannot be offered. It should be noted that neither lead, nor lead containing materials, are stored or utilized at U.S. Electroplating Corporation. Since the discovery of the contaminated storm drains and in pursuance of Article XII compliance, U.S. Electroplating Corporation has installed 6" high concrete curbs at two of the three factory entrances. There is a 3" high concrete ramp and curb at the third entrance to the factory. The locations of the curbs and ramps are shown on the Factory Layout, USE-02.

Hazardous material storage at U.S. Electroplating has already bee.. addressed in this Report. All entrances to the factory are curbed an ramped, rendering the entire factory a containment area for the process tanks. There are no floor drains in the factory area. Th concrete floor is assumed to be impervious to liquid flow. There is no piping used for hazardous material at the facility.

The Suffolk County Toxic Liquids Registration Form for U.S. Electroplating Corporation has been completed and is enclosed wit this Report. The Factory Layout and Plot Plan can be found in the Appendix of this Report.

LETTER REPORT

INDUSTRIAL WASTE DISPOSAL METHOD

U.S. ELECTROPLATING CORP.
WEST BABYLON, NEW YORK

OCTOBER 22, 1971

Ford, Bacon & Davis
Incorporated
Engineers

CHICAGO NEW YORK SAN FRANCISCO

Ford, Bacon & Davis
Incorporated
Engineers

HICAGO CONSTRUCTION VALUATIONS REPORTS MANAGEMENT SAN FRANCISCO

2 BROADWAY
NEW YORK, N.Y. 10004

New York, October 22, 1971

U. S. Electroplating Corp.
100 Field Street
West Babylon, New York 11704

Dear Sirs:

In accordance with your authorization to proceed, based on our proposal of October 12, 1971, we have completed the investigation of your electroplating operation and method of industrial waste disposal at your facility at 100 Field Street, West Babylon, New York. The purpose of our investigation was to determine if our present method of waste disposal meets the requirements of the Suffolk County Department of Environmental Control and the State of New York Department of Environmental Conservation.

The location of the U.S. Electroplating facilities is shown on the property plat, Exhibit No. 1, along with adjacent property owners and nearby buildings. All of these are served by municipal water supply and have subsurface domestic waste disposal systems.

Your company's plant is presently not in operation, but is awaiting authorization to start, pending receipt of a permit from the Suffolk County Department of Environmental Control. The company expects to utilize the facility for electroplating on a job-lot basis, consisting principally of automotive, marine, aviation, and other specialty parts and equipment. Eight different types of plating handled will include copper, nickel, chrome, zinc, cadmium, tin, and tin-lead, as well as anodizing.

Exhibit No. 2 indicates the general electroplating layout and piping for the plating rinse water effluent. The pl: :d or anodized material is taken from the plating tanks and first rinsed in a primary rinse or drag-out tank. This primary rinse is not disposed of but is eventually returned to the plating tank to replenish the plating solution.

The material is then rinsed in the secondary or final rinse tanks which are each equipped with 1/2-in. water supply and 1-1/2 in. overflow to a waste water discharge pipe. The rinse is not continuous but occurs for about 30 seconds at 30-minute intervals.

The secondary rinse water is discharged through a 2-in. collecting pipe and a 4-in. cast-iron sewer pipe to three subsurface concrete holding tanks located between the east side of the building and the street curb as shown on Exhibit No. 3. The first holding tank has a 1,000-gallon capacity with a 4-in. overflow to the two 2,500-gallon tanks. These two 2,500-gallon tanks were originally utilized as leaching basins, but have now been sealed with 3 in. of gunite on the walls and 8 in. on the bottoms.

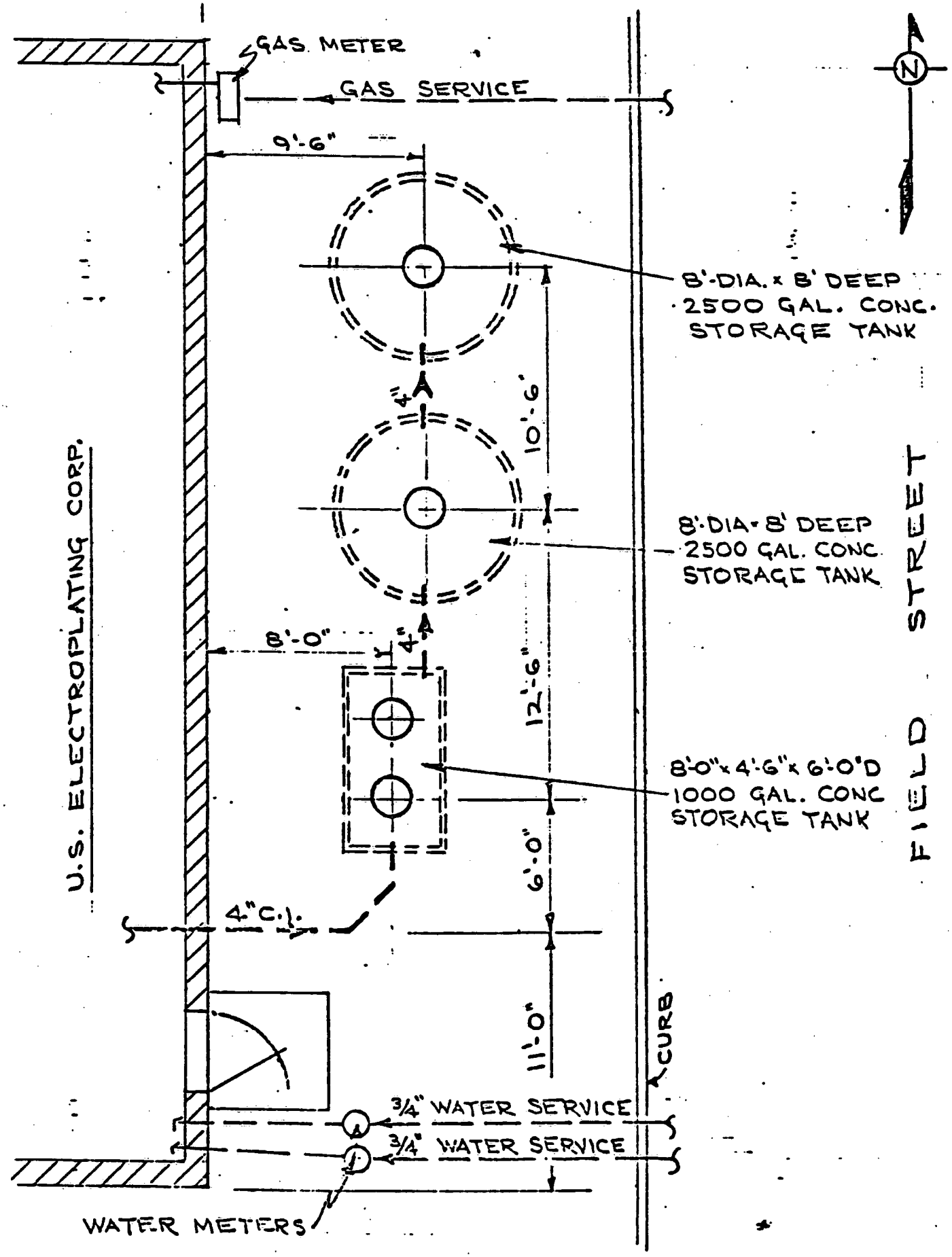
The estimated maximum daily volume of waste water is based on all eight operations functioning during an 8-hour day, rinsing every 30 minutes for 30 seconds per rinse, and each using about 4 gpm of water from a 1/2-in. bib. This operation could result in a maximum of approximately 256 gallons per day discharged to the holding tanks, which have a total capacity of 6,000 gallons. Normal operation is expected to be considerably below this figure.

Scientific Chemical Processing, Inc., at 216 Paterson Plank Road, Carlstadt, New Jersey, has contracted at the rate of $0.10 per gallon to pump out the holding tanks and haul the waste water to its treatment facility.

As a result of our investigation, we conclude that the U.S. Electroplating Corp. is in compliance with both New York S..te Department of Environmental Conservation and Suffolk County Department of Environmental Control regulations, since there is no surface or subsurface disposal of the industrial waste water on the site, and arrangements have been made to haul it away for treatment and discharge elsewhere.

Very truly yours,

Ford, Bacon & Davis, Inc.



EFFLUENT STORAGE

SCALE : 1" = 6'-0"

Ford, Bacon & Davis, Inc.
Engineers
CHICAGO NEW YORK SAN FRANCISCO

Identification

Tank No.	Capacity	Use	*Waste
1	200 gal.	Non-Etch Cleaner	
2	200 gal.	Etch	
3	150 gal.	Rinse	
4	400 gal	Non-Alkaline Anodizer	*Condensate
6	300 gal.	Bi-Chromate Solution	
7	100 gal.	Hot Water Seal	
8	230 gal.	Dye	
9	230 Gal.	Drag & Rinse	
10	240 gal.	Hot Water Seal	
11	40 gal.	Rinse	
12	40 gal.	Rinse	
13	75 gal.	Nitric Acid Solution	
14	75 gal.	Zinc	
15	300 Gal.	Copper-Cyanide Plating	*Condensate
16	40 gal.	Rinse	*Copper Cyanide
17	40 gal.	Rinse	
18	40 gal.	Rinse	*Nickel Muriatic Acid
19	40 gal.	Rinse	
20	400 gal.	Nickel Sulfate Plating	*Condensate
21	240 gal.	Chromic Sulfuric Plating	*Condensate
22	40 Gal.	Sodium Hypochrolite Neutralizer	
23	40 gal.	Drag Out	
24	150 gal.	Emulsion Cleaner & Drag Out	
25	40 gal.	Rinse	
26	40 gal.	Rinse	
27	200 gal.	Potash Soak Cleaner	
28	40 gal.	Rinse	*Potash
29	40 gal.	Rinse	
30	250 gal.	Reverse Electro Cleaner	
31	200 gal.	Reverse Electro Cleaner	
32	40 gal.	Rinse	*Chromic & Sulfuric Aci Sodium Bi-Sulfate
33	40 gal.	Rinse	
34	40 gal.	Sodium Bi-Sulfate Neutralizer	
35	40 gal.	Drag Out	

Tank No.	Capacity	Use	*Waste
36	175 gal.	Hot Water	
37	40 gal.	Rinse	
38	40 gal.	Rinse	*Tin-Tin-Lead
39	100 gal.	Muriatic Acid Solution	
40	75 gal.	Cyanide Solution-Dip	
41	300 gal.	Cadmium Plating	
42	40 gal.	Rinse	
43	40 Gal.	Rinse	*Cadmium-Cyanide
44	75 gal.	Yellow Conversion (Cadmium	
45	40 gal.	Drag Out	
46	75 gal.	Clear Conversion (Cadmium)	
47	60 gal.	Nickel Activator	
48	70 gal.	Tin-Lead	
49	200 gal.	Tin Plating	
50	300 gal.	Zinc Plating	
51	40 gal.	Rinse	*Zinc, Cadmium, Cyanide Sodium Hypochlorate
52	40 gal.	Rinse	
53	40 gal	Drag Out	
54	40 gal.	Sodium Hypochlorite Neutralizer	
55	75 gal.	Zinc Clear Conversion	
56	150 gal.	Spare Tank	
57	-	Centrifugal Dryer	
58	60 gal	Hot Water Tank	
59	200 gal.	Zinc Barrel	
60	200 Gal.	Cadmium Barrel	

SPDES File
Region 1 - Ref. #47-0677
Suffolk Co. Dept. Env. Control
Mr. Quinn - BIP

Application No. : NY008 4867

Name of Permittee : U.S. ELECTROPLATING CORP.

Effective Date : August 29, 1975

Expiration Date : August 29, 1980

STATE POLLUTANT DISCHARGE ELIMINATION SYSTEM (SPDES) DISCHARGE PERMIT

Special Conditions
(Part I)

This SPDES permit is issued in compliance with Title 8 of Article 17 the Environmental Conservation Law of New York State and in compliance with e provisions of the Federal Water Pollution Control Act, as amended by the ederal Water Pollution Control Act Amendments of 1972, P.L. 92-500, ctober 18, 1972 (33 U.S.C. § 1251 et. seq.) (hereinafter referred to as "the Act").

U.S. Electroplating Corp.
(Full Name of Permittee)

authorized by George K. Hansen, P.E., Chief, PDES Permit Section
(Designated Representative of Commissioner of the Department of Environmental Conservation)

discharge from 100 Field Street
(Street Address of Discharging Facility)
W. Babylon, (Babylon-T)

New York 11704 (Suffolk-C)

Groundwater-Class GA
(Name of Receiving Waters)

ccordance with the following special and general conditions:

The specific effluent limitations and other pollution controls applicable he discharge permitted herein are set forth in the special conditions. Also forth are self-monitoring and reporting requirements. Unless otherwise specified, permittee shall submit original copies of all reports to the Central Office and appropriate Regional Office of the Department of Environmental Conservation the EPA Region II Regional Administrator. Except for data determined to be fidential under Section 17-0805 of the Environmental Conservation Law or ion 308 of the Act, all such reports shall be available for public inspection he ices of the Department of Environmental Conservation and the Regional inistrator of EPA Region II. Knowingly making any false statement on any report may result in the imposition of criminal penalties as provided for in ion 71-1933 of the Environmental Conservation Law or Section 309 of the Act.

Final Effluent Limitations

During the period beginning EDP (Give Date) and lasting ·. til the date of expiration of this permit, discharges from outfalls 001, a (Specify Outfall Numb r shall be limited and monitored by the permittee as specified below:

(a) The following shall be limited and monitored by the permittee as specified:

Outfall Number	Effluent Characteristic	Discharge Limitation in kg/day (lbs./day) Daily Average	Daily Maximum	Other Limitations (Specify Units) Average	Maximum	Monitoring Requirements Measurement Frequency	Sample Type
001	Sanitary Waste Only - No monitoring required Flow max. 200 gpd						
a	Industrial Waste Holding Tank - No discharge to surface or ground water allowed. Contents to be removed by an approved industrial waste scavenger. Waste removal records must be kept for inspection at any time.						

Permittee also subject to attached schedule A.

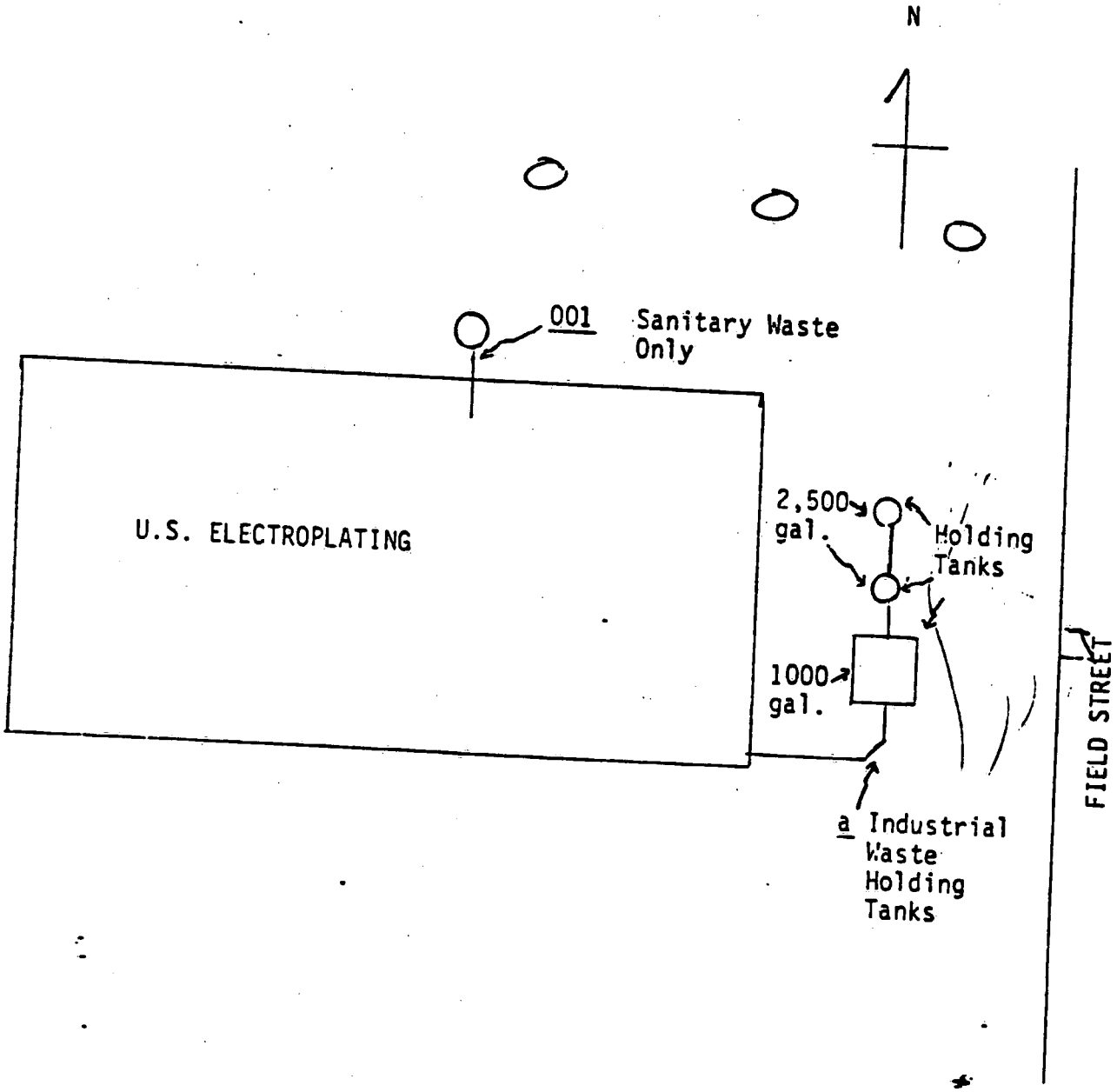
For the purposes of this subsection, the daily average discharge is the total discharge by weight during a calendar month divided by the number of days in the month that the production or commercial facility was operating.

For the purposes of this subsection, the daily maximum discharge means the total discharge by weight during any calendar day.

(b) The pH shall not be less than _____ nor greater than _____. The pH shall be monitored as follows: N/A

Monitoring Locations

Permittee shall take samples and measurements to meet the monitoring requirements at the location indicated below: (Show locations of outfalls with U.T.M. Coordinates and sketch or flow diagram as appropriate).



This permit and the authorization to discharge shall expire on midnight August 29, 1980. Permittee shall not discharge after the above
(Give Date)
date of expiration. In order to receive authorization to discharge beyond the above date of expiration, the permittee shall submit such information, forms, and fees as are required by the Department of Environmental Conservation no later than 180 days prior to the above date of expiration.

By Authority of George K. Hansen, P.E., Chief, PDES Permit Section
Designated Represenative of Commissioner of the Department of Environmental Conservation

August 29, 1975
Date

George K. Hansen
Signature

Attachments:

General Conditions
Schedule "A"

Legislative Requirements

1. All discharges authorized herein shall be consistent with the ter s and conditions of this permit; facility expansions, production increases, or process modifications which result in new or increased discharges of pollutants must be reported by submission of a new SPDES application or, if such new or ncreased discharge does not violate the effluent limitations specified in this permit, by submission to the permit issuing authority of notice of such new or increased lischarges of pollutants (in which case the permit may be modified to specify effluent limitations for any pollutants not identified and limited herein); the lischarge of any pollutant not identified and authorized or the discharge of any ollutant more frequently than or at a level in excess of that identified and uthorized by this permit shall constitute a violation of the terms and conditions of this permit.

2. After notice and opportunity for a hearing, this permit may be odified, suspended, or revoked in whole or in part during its term for cause ncluding, but not limited to, the following:

a. Violation of any terms or conditions of this permit;

b. Obtaining this permit by misrepresentation or failure to isclose fully all relevant facts;

c. A change in conditions or the existence of a condition which equ es either a temporary or permanent reduction or elimination of the uthorized discharge.

3. Notwithstanding (2) above, if a toxic effluent standard or prohibition ncluding any schedule of compliance specified in Section 17-0809 of the nvironmental Conservation Law or Section 307(a) of the Act for a toxic pollutant hich is present in the discharge authorized herein and such standard or prohibition more stringent than any limitation upon such pollutant in this permit, this rmit shall be revised or modified in accordance with the toxic effluent standard prohibition and the permittee shall be so notified.

4. The permittee shall allow the Commissioner of the Department Environmental Conservation, the Regional Administrator, and/or their uthorized representatives, upon the presentation of credentials:

a. To enter upon the permittee's premises where an effluent urce is located or in which any records are required to be kept under the terms d conditions of this permit;

b. To have access to and copy at reasonable times any records quired to be kept under the terms and conditions of this permit;

c. To inspect at reasonable times any monitoring equipment or monitoring method required in this permit; or

d. To sample at reasonable times any discharge of pollutants.

5. The permittee shall at all times maintain in good working order and operate as efficiently as possible all treatment or control facilities or systems installed or used by the permittee to achieve compliance with the terms and conditions of this permit.

6. The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations.

7. This permit does not authorize or approve the construction of any onshore or offshore physical structures or facilities or the undertaking of any work in any navigable waters.

8. For publicly owned treatment works, notice shall be given the Department of Environmental Conservation of any new introduction into such works of pollutants or substantial changes in volume or character of pollutants.

9. For discharges from publicly owned treatment works, appropriate measures will be established by the permittee to insure compliance by industrial users with any system of user charges and recovery of construction costs required under the provisions of the Act.

Reporting of Monitoring Results

(a) Monitoring information required by this permit shall be summarized and reported by submitting a Discharge Monitoring Report form, properly filled in and signed within 28 days after the close of each reporting period, to the Central Office and to the appropriate Regional Office of the Department of Environmental Conservation at the following addresses:

Mr. Russell C. Mt.Pleasant, Chief, Bureau of Monitoring & Surveillance
Room 300
New York State Department of Environmental Conservation
50 Wolf Road
Albany, New York ~~XXXXX~~ 12233

Suffolk Co. Dept. Environmental Control
1324 Motor Parkway
Hauppauge, N.Y. 11787

New York State Department of Environmental Conservation
Regional Office # 1
Bldg. 40 - SUNY
Stony Brook, N.Y. 11794

Blank Discharge Monitoring Report Forms are available at the above addresses.

Reports will be required every 6 months. The first report will be on March 28, 1976. Thereafter, monitoring report forms shall be submitted no later than the 28th of the following month(s): Sept., Mar.

(b) Each submitted Discharge Monitoring Report shall be signed as follows:

1. If submitted by a corporation, by a principal executive officer of at least the level of vice president, or his duly authorized representative, if such representative is responsible for the overall operation of the facility from which the discharge described in the Discharge Monitoring Report originates;

2. If submitted by a partnership, by a general partner;

3. If submitted by a sole proprietor, by the proprietor;

4. If submitted by a municipality, State or Federal agency; or other public entity, by a principal executive officer, ranking elected official, commanding officer, or other duly authorized employee.

(c) Unless otherwise specified, all information submitted on the Discharge Monitoring Form shall be based upon measurements and sampling carried out during the previous reporting period.

(d) The monitoring reporting requirements stated in this permit shall not supersede or in any way alter existing reporting obligations. Thus, permittees unless specifically directed otherwise shall continue to file their regular monthly Wastewater Treatment Plant operators reports with the appropriate local, state or other agency having jurisdiction.

Recording of Monitoring Activities and Results

(a) The permittee shall make and maintain records of all information resulting from the monitoring activities required by this permit.

(b) The permittee shall record for each measurement or sample taken pursuant to the requirements of this permit the following information: (1) The date, exact place, and time of sampling; (2) The dates analyses were performed; (3) Who performed the analyses; (4) The analytical techniques or methods used; and, (5) The results of all required analyses.

(c) If the permittee monitors any pollutant more frequently than is required by this permit, he shall include the results of such monitoring in the calculation and reporting of the values required in the Discharge Monitoring Report form. Such increased frequency shall be indicated on the Discharge Monitoring Report form.

(d) The permittee shall retain for a minimum of three (3) years all records of monitoring activities and results including all records of calibration and maintenance of instrumentation and original strip chart recordings from continuous monitoring instrumentation. This period of retention shall be extended during the course of any unresolved litigation regarding the discharge of pollutants by the permittee or when requested by the Commissioner of the Department of Environmental Conservation or the EPA Regional Administrator.

Computation of Monitoring Data

(a) Samples and measurements taken to meet the monitoring requirements specified above shall be representative of the volume and nature of the monitored discharge.

(b) Following promulgation of guidelines establishing test procedures for the analysis of pollutants, published pursuant to Section 304(g) of the Federal Water Pollution Control Act, as amended, all sampling and analytical methods used to meet the monitoring requirements specified above shall conform to such guidelines. If the Section 304(g) guidelines do not specify test procedures for any pollutants required to be monitored by this permit and until such guidelines are promulgated, sampling and analytical methods used to meet the monitoring requirements specified in this permit shall, unless otherwise specified by the Commissioner, conform to the latest edition of the following references:

1. Standard Methods for the Examination of Water and Wastewaters, 13th Edition, 1971, American Public Health Association, New York, New York 10019.

2. A.S.T.M. Standards, Part 23, Water; Atmospheric Analysis, 1972, American Society for Testing and Materials, Philadelphia, Pennsylvania 19103.

3. Methods for Chemical Analysis of Water and Wastes, April 1971, Environmental Protection Agency Water Quality Office, Analytical Quality Control Laboratory, NECR, Cincinnati, Ohio 45268.

Noncompliance with Effluent Limitations

(a) If for any reason the permittee does not comply with or will be unable to comply with any daily maximum effluent limitation specified in this permit, the permittee shall immediately notify the Department of Environmental Conservation Regional Office by telephone and provide the following information in writing within five days of such notification:

1. Cause of noncompliance;

2. A description of the noncomplying discharge including its impact upon the receiving waters;

3. Anticipated time the condition of noncompliance is expected to continue, or if such condition has been corrected, the duration of the period of noncompliance;

4. Steps taken by the permittee to reduce and eliminate the noncomplying discharge; and

5. Steps to be taken by the permittee to prevent recurrence of the condition of noncompliance.

(b) Permittee shall take all reasonable steps to minimize any adverse impact to navigable waters resulting from noncompliance with any effluent limitation specified in this permit, including such accelerated or additional monitoring as necessary to determine the nature and impact of the noncomplying discharge.

(c) Nothing in this permit shall be construed to relieve the permittee from civil or criminal penalties for noncompliance, whether or not such noncompliance is due to factors beyond his control, such as equipment breakdown, electric power failure, accident, or natural disaster.

Prohibition of Bypass of Treatment Facilities

The diversion or bypass of any discharge from facilities utilized by the permittee to maintain compliance with the terms and conditions of this permit is prohibited, except (i) where unavoidable to prevent loss of life of severe property damage, or (ii) where excessive storm drainage or runoff would damage any facilities necessary for compliance with the terms and conditions of this permit. The permittee shall immediately notify the Department of Environmental Conservation Regional Office in writing of each such diversion or bypass in accordance with the procedure specified for reporting noncompliance.

Disposal of Collected Solids

(a) Intake water treatment. Solids, sludges, dirt, sand, silt, or other pollutants separated from or resulting from treatment of intake or supply water prior to use by the permittee shall be disposed of in such a manner as to prevent any pollutant from such materials from entering classified waters. Any live fish, shellfish, or other animals collected or trapped as a result of intake water screening or treatment may be returned to their water body habitat.

(b) Wastewater treatment. Solids, sludges, filter backwash, or other pollutants removed from or resulting from treatment or control of wastewaters shall be disposed of in such manner as to prevent any pollutant from such materials from entering classified waters.

SCHEDULE A

By initiating construction of the approved works, the permittee accepts and agrees to abide by and conform with the following:

1. That upon completion of construction, accurate as-built drawings prepared by a New York State Professional Engineer shall be submitted to the New York State Department of Environmental Conservation and Suffolk County Department of Environmental Control for permanent records showing all pertinent details of the collection, treatment and disposal system including pipe locations and elevations, all plumbing, electrical and mechanical drawings, general layout, equipment design and hydraulic profiles.

2. That acceptance and approval of the waste disposal facility does not constitute approval of the structural stability by the New York State Department of Environmental Conservation or Suffolk County Department of Environmental Control.

3. That if changes are contemplated to the approved plan, such changes shall be submitted in writing to New York State Department of Environmental Conservation and Suffolk County Department of Environmental Control and receive written approval before being initiated.

4. That a comprehensive operating and testing manual shall be provided to the New York State Department of Environmental Conservation and Suffolk County Department of Environmental Control and to the owner to be kept in a satisfactory location at the treatment plant prior to final approval to operate.

5. That a comprehensive equipment maintenance and repair manual shall be provided to the owner prior to final approval to operate.

6. That all equipment warranties shall be properly signed and validated prior to approval to operate.

7. That no industrial wastes, cooling water, or storm drainage shall be allowed to flow to sanitary waste disposal systems.

8. That routine sampling and testing of plant flow shall be performed for the purposes of proper operation control and surveillance in accordance with the permit schedule and that such additional laboratory equipment and testing as may be required by the New York State Department of Environmental Conservation and Suffolk County Department of Environmental Control be supplied and performed.

9. That summary reports of the operation of the treatment works including laboratory tests and measurements of the influent unit effluents and plant effluent and results therefrom shall be submitted to New York State Department of Environmental Conservation and Suffolk County Department of Environmental on forms furnished by or satisfactory to the Departments and that operating records shall be kept at the treatment works.

10. That a responsible and reliable operator shall be available on call at all times for immediate response to emergency conditions. The name and emergency phone number of this person shall be permanently posted in clear view of the public at the plant site.

11. That this plant shall be visited each and every day by the certified operator or his properly designated employee and the visit shall include a complete walk-around inspection of all components and every piece of equipment. Required samples shall be taken on schedule and necessary readings recorded. A time log book shall be maintained in good order at the plant giving date, time in, time out, any unusual occurrences and the operator's signature.

12. That should any unusual situation occur caused by a deviation from normal operation and creating a potentially hazardous condition or gross violation, the permittee will immediately notify the New York State Department and Suffolk County Department of Environmental Control when such condition begins and when the condition ceases.

13. That the facilities shall be maintained at all times in a safe, clean, neat, orderly and inoffensive manner, all equipment maintained in optimum operating condition with all necessary tools and spare parts on hand to prevent undue outage.

14. That the waste treatment facility shall at all times be maintained in a safe condition satisfactory to protect the plant employees and the general public from any hazard created by the existence of operation of the treatment facility. Necessary precautions to accomplish this shall include but not be limited to: guardrails, warning signs, color coding and labeling, guards on shafts and other moving parts, safety equipment, proper tools, warning lights and alarms, and backflow prevention devices on potable drinking water supply.

15. That all below or above ground outdoor chemical or waste storage tanks shall be emptied yearly and inspected hydrostatically, visually or both for leaks which might cause undetected groundwater contamination.

16. That leaching beds must be operated on a rotational basis using alternate dosing and drying cycles preventing the long-term ponding of stagnant water and that when the leaching rate declines in a bed it must be immediately removed from service dried, cleaned and regraded.

17. That sludge shall not be allowed to accumulate in any leaching bed or other component of the plant or collection system in sufficient quantity so as to cause decomposition and uncontrolled odor production.

18. That the removal of sludge or other liquid waste from the plant site shall be accomplished by an approved scavenger to an approved site in a manner and at a time so as to minimize any nuisance created by noise or odor. No spillage of waste onto the surface of the ground shall be permitted. Permanent records shall be kept at the plant giving date, time, amount, type and name of scavenger for all waste removed from the plant site.

19. That if a public nuisance situation occurs in the opinion of the permit issuing authority, which is resulting in public complaint due to odor, overflows, spillage or other causes, the owner shall take all feasible action to control the nuisance, and that failure to initiate such action shall be considered as a violation of permit. "Feasible action" includes but is not limited to installation of odor control devices.

20. That if transfer of this permit and its attendant obligations to another permittee is desired, the permittee of record and the assuming permittee shall so petition the New York State Department of Environmental Conservation in writing. Transfer shall become effective on the date prescribed in the written notification of such transfer to be furnished to both the original and the assuming permittees by the New York State Department of Environmental Conservation.

21. That this permit be kept readily available at the treatment facility.

ON $2,500 FINE

STATE OF NEW YORK
DEPARTMENT OF ENVIROMENTAL CONSERVATION

also see SCDHS order

In the matter of the Alleged Violation of Article 17 of the Enviromental Conservation Law of the State of New York, by

U.S. ELECTROPLATING CORP.

(Suffolk County) Respondent

ORDER ON CONSENT

FILE NO. 1-0675

WHEREAS, Section 17-0505 of the Enviromental Conservation Law of the State of New York prohibits the making or use of a new outlet into the waters of the state, and the operation or construction of disposal systems without a valid permit as provided by Section 17-0701; and

WHEREAS, Section 17-0511 prohibits the use of existing or new outlets or point sources, which discharge sewage, industrial waste or other waste into waters of this state unless such use is in compliance with all standards, criteria, limitations, rules and regulations promulgated or applied by the Department pursuant to this article; and

WHEREAS, Section 17-1743 provides that any person who is the owner or in possesion of more than fifteen hundred (1,500) gallons or more, in bulk, of hazardous liquid waste which if released, discharged, or spilled would or would be likely to pollute the waters of the state shall, as soon as he has knowledge of the release, discharge or spill of any such liquid in his possesion or control into the waters of the state, immediately notify the Department of Enviromental Conservation.

WHEREAS, this Department has documented instances of your allowing the contents of your industrial waste holding tanks to overflow on to the surface of the ground and into the groundwater; and in addition, you were in possesion of more than fifteen hundred (1,500) gallons in bulk of hazardous liquid waste; 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 Enviromental Conservation Law, agrees to be bound by the terms and conditions contained herein.

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 Two Thousand, Five Hundred ($2,500) Dollars to be made payable to this Department upon execution of this Order; and it is further

ORDERED, that respondent shall strictly comply with the terms and conditions set forth in Schedule A the compliance schedule attached hereto and made a part hereof; and it is further

ORDERED, that the provisions, terms and conditions of this Order shall be deemed to bind Respondent, its successors and assigns and all persons, firms or 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, 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 the 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: U.S. Electroplating Corp.
100 Field Street
West Babylon, New York 11704
Att: Mr. Nathan Birnbaum

CONSENT BY RESPONDENT

Respondent acknowledges the authority and jurisdition 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.

_____

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

On the 17 day of May 1980, before me personally came Nathan Birnbaum to me known, who being duly sworn deposed and said that he resides at 2331 Clearview Dr. Merrick N.Y. that he is the President of the Respondent Corporation and that he signed his name for and on behalf of said corporation, with full authority so to do.

MARGARET E. FUTCHER
Notary Public, State of New York
No. 52 5551550
Qualified in Suffolk County
Term Expires March 30, 1982

NOTARY PUBLIC

SCHEDULE A

Compliance Schedule
for

U.S. ELECTROPLATING CORP.

Immediately,	Respondent shall furnish all copies of scavenger receipts to the New York State Department of Environmental Conservation and the Suffolk County Department of Health Services.
On or before Apr. 23, 1980	Respondent shall install high level alarm systems in holding tanks.
On or before May 30, 1980	Respondent shall test holding tanks by hydro-static testing.

New York State Department of Environmental Conservation
Information Services
Wildlife Resources Center
Delmar, New York 12054

Thomas C. Jorling
Commissioner

July 24, 1989

Jeffrey S. Archibald
James C. Anderson Associates, Inc.
3 University Plaza
Hackensack, N.J. 07601

2 8 1989

Dear Mr. Archibald:

We have reviewed the Significant Habitat Unit and the NY Natural Heritage Program files with respect to the project at 100 Field Street, West Babylon.

We have identified two rare plants that were historically found in the vicinity of the area you identified. They are the Southern Yellow Flax (Linum medium var texanum) and the Sandplain Gerardia (Agalinus acuta). These two plants, threatened and endangered respectively, may still be present if suitable habitat still exists even though they haven't been documented since the 1920's. We recommend a thorough search of the area by a qualified individual at the proper time of year.

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

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

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

If we can be of further assistance please do not hesitate to contact us.

Sincerely,

Burrell Buffington

Burrell Buffington
Significant Habitat Unit

Enc.
cc: Reg. 1, Fish & Wildlife Office

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

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New York State Department of Environmental Conservation
Regulatory Affairs Regional Offices

REGION	COUNTIES	NAME	LOCATION
Region 1	Nassau Suffolk	Robert Greene	Bldg. 40, SUNY Stony Brook, NY 11790
Region 2	NYC	Barbara Rinaldi	Hunter Point Plaza 47-40 21st Street Long Island City, NY 11101
Region 3	Dutchess Orange Putnam Rockland Sullivan Ulster Westchester	Ralph Manna	21 South Putt Corners Road New Paltz, NY 12561
Region 4	Albany Columbia Delaware Greene Montgomery Otsego Rensselaer Schenectady Schoharie	Jeffrey Sama	2176 Guilderland Avenue Schenectady, NY 12306
Region 5	Clinton Essex Franklin Fulton Hamilton Saratoga Warren Washington	Richard Wild	Route 86 Ray Brook, NY 12977
Region 6	Herkimer Jefferson Lewis Oneida St. Lawrence	Randy Vaas	State Office Bldg. 317 Washington Street Watertown, NY 13601

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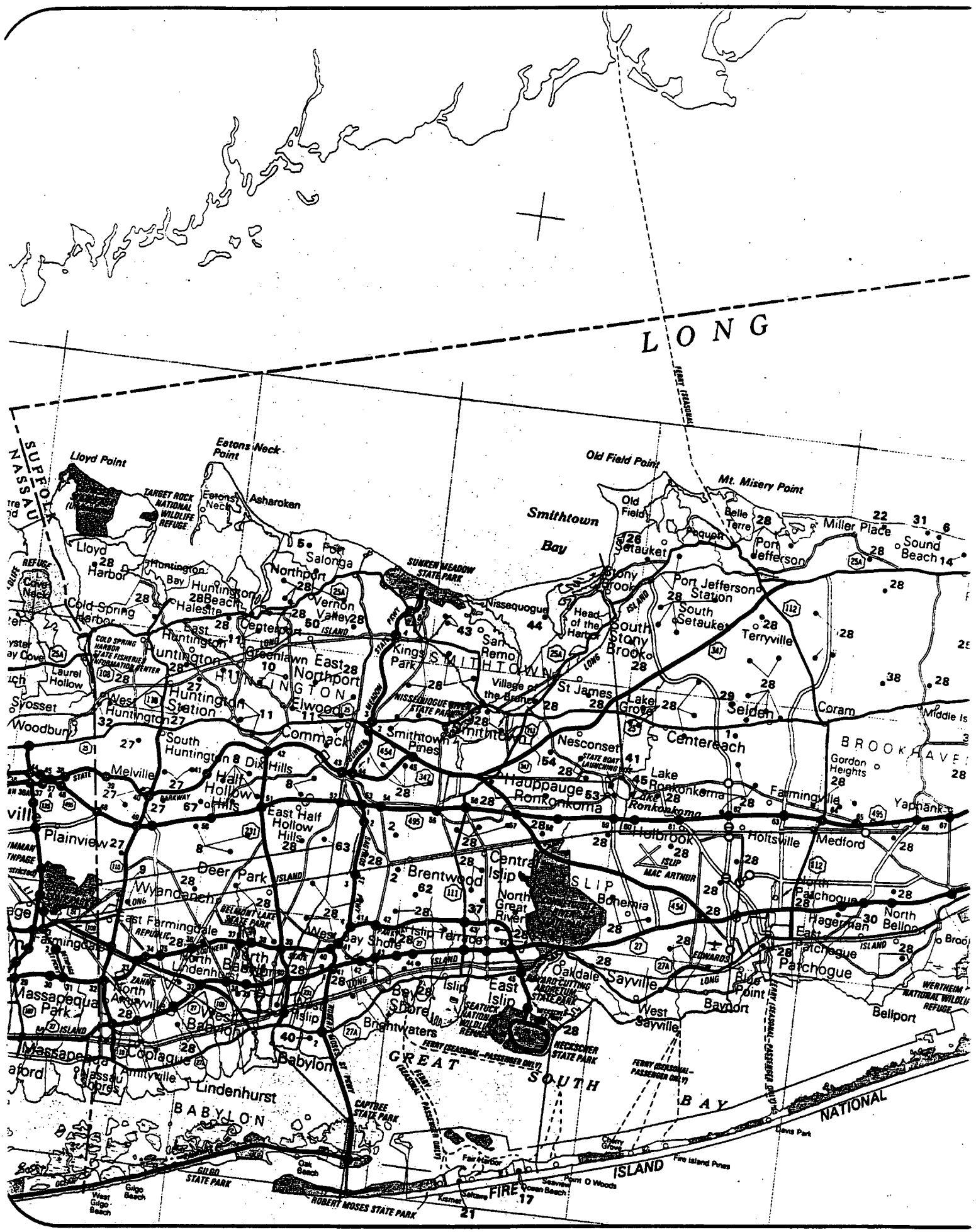
New York State Atlas of Community Water System Sources 1982

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

JAMES C. ANDERSON, ASSOCIATES
385 PROSPECT AVE
HACKENSACK, NJ 07602

LOCATION OF COMMUNITY WATER SYSTEM SOURCES-1982



ADAPTED FROM THE FOUR-SHEET, 1:250,000 SCALE NEW YORK STATE MAP. © 1980 BY THE NEW YORK STATE DEPARTMENT OF TRANSPORTATION.

SUFFOLK COUNTY

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

COUNTY OF SUFFOLK

DEPARTMENT OF HEALTH SERVICES

NOTIFICATION OF UNSATISFACTORY INDUSTRIAL WASTE SAMPLING

Feb. 27, 1980

Electroplating Corp.
Field St.
abylon, N.Y. 11704

lemen:

1/15/80 samples of your industrial waste were taken from
middle by rear door. Upon analysis, the
owing parameters were found to be unsatisfactory:

1. Iron - 7.5 mg/l
2. Lead - .5 mg/l
3. Cadmium - .22 mg/l
4.
5.
6.
7.
8.
9.
10.

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

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

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

Stephen A. Costa

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

(GW)

SON LANE • HAUPPAUGE, NEW YORK 11787 • (516) 234-2622

OUNTY OF SUFFOLK
EPARTMENT OF HEALTH SERVICES

n the Matter of the Alleged iolation of Article f the Suffolk County Sanitary ode by U. S. Electroplating Corp. 00 Field Street est Babylon, New York Respondent	ORDER ON CONSENT NO. IW-80-15

his Department has documented Respondent's failure to comply with rticle 12 Section(s) 1205(a) & 1210(b) of the Suffolk ounty Sanitary Code, and because of such non-compliance, Respondent, .S. Electroplating Corp., 100 Field Street, West Babylon, NY ffirmatively and voluntarily waives its right to a public hearing n this matter. Therefore, Respondent consents to the entering and ssuance of this Order on Consent and agrees to be bound by the terms nd conditions stated therein.

modification of any of the provisions of this Order on Consent can nly be granted by the Commissioner after having received a timely equest for such relief, which request must include Respondent's rc ds for seeking the modifications. No modification of any of the erms and conditions in this Order on Consent shall be effective unless and until they are specifically set forth in writing by the ommissioner.

TERMS AND CONDITIONS

Respondent(s) U. S. Electroplating Corp.,
100 Field Street
West Babylon, NY

In satisfaction of the Respondent's alleged violation(s) of Section(s) 1205(a) & 1210(b) of the Suffolk County Sanitary Code on the following date(s) from February 1st, 1980 through May 19th, 1980.

Respondent agrees to the following terms and conditions and agrees to be bound by this Order of the Commissioner of the Department of Health Services.

1. Within two weeks of the execution of this Order on Consent, Respondent agrees to remove all defective sub-surface concrete holding tanks. Prior to this operation Respondent shall empty these tanks of any liquid contents and have said liquid removed by a licensed industrial waste scavenenger. Respondent shall notify this office at least 48 hours in advance of this work.

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2. Respondent agrees that there shall be no discharge of industrial waste to the ground water of Suffolk County or onto the surface of the ground or to any sub-surface leaching facility unless and until Respondent obtains a perm it therefor issued by or acceptable to the Commissioner.

3. As a temporary measure for the 16 weeks following execution of this Order on Consent, Respondent shall store his industrial waste in 55 gallon drums which drums shall be stored indoors and shall be disposed of along with the wastes therein by industrial scavenger licensed by the State of New York. Respondent shall keep and maintain records of all scavenger removal detailing the date, type and amount of wastes removed and the name of the scavenger employed.

4. Respondent agrees to provide a representative of this Department with access to his premises and buildings therein for the purpose of inspection in order to determine Respondent's compliance with this Order on Consent and with all other provisions of applicable law. Inspections shall be conducted in the presence of Mr. Nathan Birnbaum or his delegated representative.

5. Within 8 weeks of execution of this Order on Consent Respondent shall submit an approvable engineering report prepared and subscribed by an engineer licensed to practice professional engineering in the State of New York. This report shall detail the nature of any constructions and operational changes at U.S. Electroplating Corp. to rectify prior discharge problems and prior defective holding tanks.

6. Within 16 weeks of execution of this Order on Consent, Respondent shall have achieved final operational condition, at which time all prior violations of Suffolk County Sanitary Code shall have been permanently corrected.

7. Respondent agrees to forfeit the sum of $100,00 as a civil penalty in satisfaction of all Suffolk County Sanitary Code violations herein noted. This civil penalty shall be paid at the time of Respondent's return of this Order on Consent duly executed. Respondent further agrees to forfeit the additional sum of $2,400.00 in the event that the terms and conditions in this Order on Consent are not strictly adhered to.

CONSENT BY COMMISSIONER

ommissioner of the Suffolk County Department of Health Services
; t- waive further administrative enforcement action against
esp .dent named herein for the violaion(s) delineated herein
: Respondent strictly adheres to all of the provisions of the
on Consent.

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

auge, N.Y.

Aaron D. Chaves
By: Aaron Chaves, M.D.
Deputy Commissioner

CONSENT BY RESPONDENT

ndent acknowledges the authority and jurisdiction of the Com-
loner of the Suffolk County Department of Health Services to
: the foregoing Order on Consent, and Respondent waives public
ng in this matter and consents to be bound by this Order of the
issioner of the Department of Health Services.

Respondent

3 7-8-80.

By: [signature]

Title: PRESIDENT

E OF NEW YORK)
ss.:
TY OF SUFFOLK)

On the 8th day of July, 1980, before me personnally came
[illegible] to me known, who being duly sworn, deposed and-
that he resides at 3331 SEALANE DR, MERRICK.
he is the PRESIDENT of Respondent Corporation, and that
ig i his name as authorized by said corporation with full auth-
y to do so.

PATRICIA A. TABOSKI
NOTARY PUBLIC, State of New York
No. 30-4697411
Qualified in Nassau County
Commission Expires March 30, 1981

[signature]
NOTARY PUBLIC

COUNTY OF SUFFOLK

PETER F. COHALAN
SUFFOLK COUNTY EXECUTIVE

CPARTMENT OF HEALTH SERVICES
U.S. Electroplating
100 Field Street
West Babylon, NY 11704

Date October 19, 1982
SPDES NO. -
Lab. No. 9/82-43
Field No. 3BS 9-8

entlemen:

n September 8, 1982 samples of industrial waste were taken from your sanitary pool 25 feet in front of Biltmore main door North cover. pon analysis, the following parameters were found in concentrations above he maximum allowed in your SPDES Permit or in groundwater effluent tandards:

. Copper 2.6 Mg/l
. Iron 1.9 Mg/l
. Lead .2 Mg/l
. Cadmium 16 Mg/l
. 6.
. 7.
. 8.
. 9.
. 10.

lease be advised that these unsatisfactory conditions constitute violations of the N.Y.S. Environmental Conservation Law and/or the Suffolk ounty Sanitary Code. Please be further advised that the discharge of ny water from an industrial process to the groundwater of Suffolk County ithout having first obtained a State Pollutant Discharge Elimination ystem (SPDES) Permit for that discharge is also a violation of the N.Y.S. .C.L. and/or the Suffolk County Sanitary Code, Article 12.

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

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

ery truly yours,

John H. Finkenberg, Sr. Sanitarian
Environmental Pollution Control

(SEE REVERSE SIDE FOR STANDARDS)

nseblock Pl.
ngville, NY 11738
451-4628

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TO: U.S. ELECTROPLATING CORP.
100 FIELD STREET
WEST BABYLON, NEW YORK 11704

FINDING OF FACT

On the 9th day of March 1982, at 12:00 p.m., an administrative hearing, pursuant to the Notice of Formal Hearing dated January 18, 1982 was held regarding alleged violations of the Suffolk County Sanitary Code, to wit: Order on Consent No. IW80-15, entered into by defendant on or before June 18, 1980, was violated in that defendant violated Article 12, Section 1205 (a)(b) and Article 2, Section 218, paragraphs 2 and 5 of the Suffolk County Sanitary Code and Section 309 of the Public Health Law.

DECISION

Based on the testimony presented, it is the opinion of this Hearing Officer that the violations existed on the dates specified in the Notice of Formal Hearing.

RECOMMENDATION

Pursuant to Article 2, Section 218(2), a fine of $200.00 is imposed upon the respondent. Further, all violations are to be corrected in accordance with the stipulated agreement entered into on March 9, 1982 as indicated in the attached (pages 6-10 of the transcript).

ORDER

I hereby order and direct that the penalty of $200.00 assessed against the respondent for violations of the Suffolk County Sanitary Code be paid by the respondent to the Suffolk County Department of Health Services within thirty (30) days after service of this order. Further, all violations are to be corrected in accordance with the stipulated agreement entered into on March 9, 1982 as indicated in the attached (pages 6-10 of the transcript). The fine must be paid to the Commissioner of Health Services, 225 Rabro Drive East, Hauppauge, New York 11788.

James L. Corbin
Hearing Officer

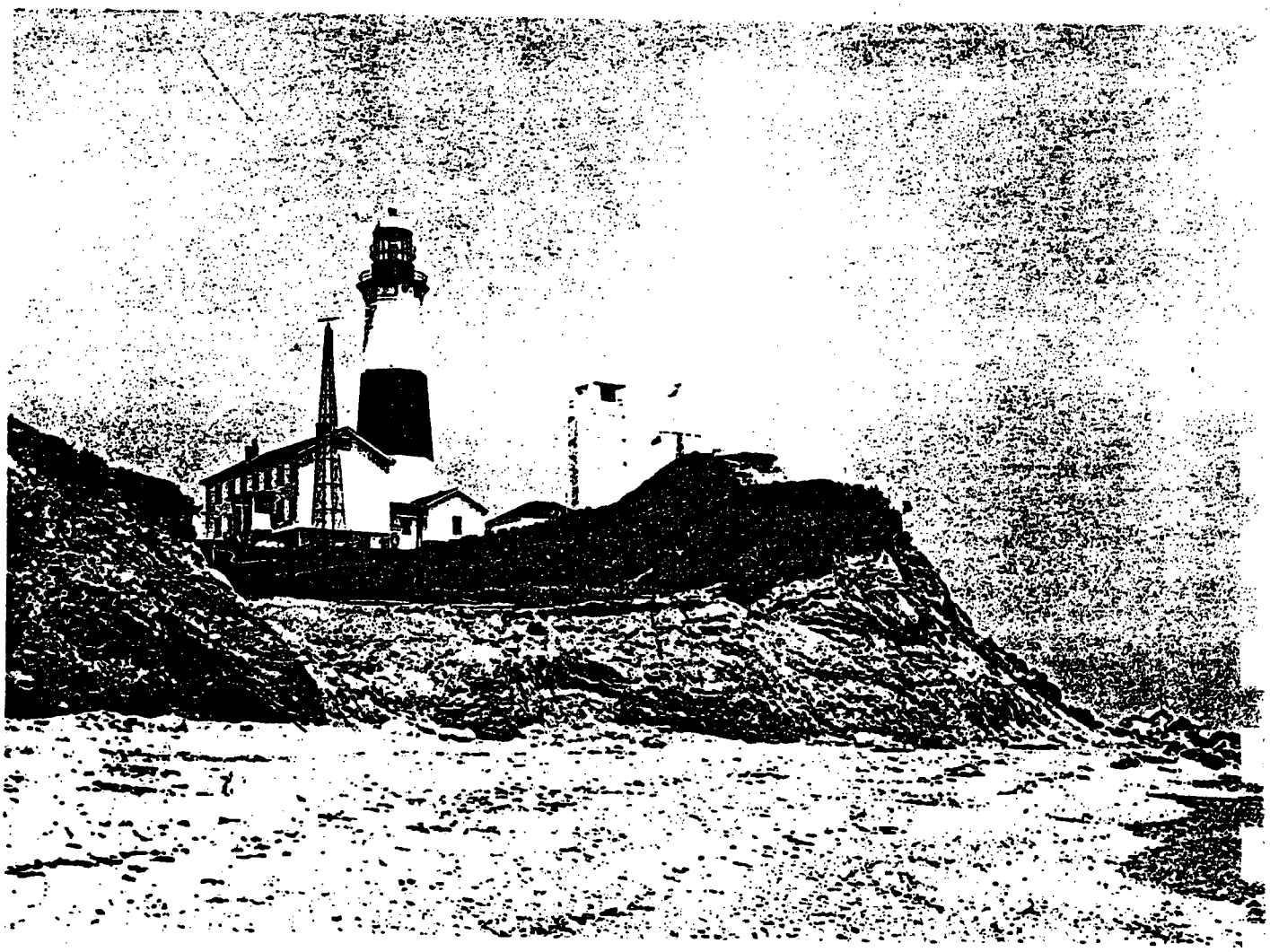
David Harris, M.D., M.P.H.
Commissioner

Dated: April 20, 1982
Hauppauge, New York

FILE COPY

SOIL SURVEY

Suffolk County, New Yo



SUFFOLK COUNTY SOIL & WATER
CONSERVATION DISTRICT
Peconic Plaza
164 Old Country Road, Route 58
Riverhead, N.Y. 11901
Phone: 516-727-2315

United States Department of Agricultu
Soil Conservation Service
in cooperation with
Cornell Agricultural Experiment Station

SOIL CONSERVATION SERVICE
Peconic Plaza
164 Old Country Road, Route 58
Riverhead, New York 11901

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(Joins sheet 74)
(Joins sheet 84)
(Joins sheet 90)
2 155 000 FEET
2 175 000 FEET
REPUBLIC AIRPORT
PINELAWN CEMETERY
ST. CHARLES CEMETERY
NORTH LINDENHURST
Scale 1:20 000
Mile

SCALE 1.24000

1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

1 KILOMETER

National Wetlands Inventory
Amityville, New York

Other information concerning the wetland resources depicted on this document may be available. For information, contact:
Regional Director (ARDE) Region V
U.S. Fish and Wildlife Service
1 Gateway Center, Suite 700
Newton Corner, Massachusetts 01258

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U.S. DEPARTMENT OF THE INTL.
FISH AND WILDLIFE SERVICE

Prepared by Office of Biological Services for the National Wetlands Inventory

UTM GRID AND 1979 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET

CONTOUR INTERVAL 5 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929
DEPTH CURVES AND SOUNDINGS IN FEET—DATUM IS MEAN LOW WATER
THE RELATIONSHIP BETWEEN THE TWO DATUMS IS VARIABLE
SHORELINE SHOWN REPRESENTS THE APPROXIMATE LINE OF MEAN HIGH WATER
THE MEAN RANGE OF TIDE IS APPROXIMATELY 1.3 FEET

THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS
FOR SALE BY U. S. GEOLOGICAL SURVEY, RESTON, VIRGINIA 22092
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

Amityville Quadrangle, New York
1979 Revision

NEW YORK
Ground-Water Resources

More than 6 million of New York's 17.5 million residents rely on ground water for drinking supplies. Of those who depend on ground water, more than one-half live on Long Island where ground-water withdrawals for all uses total 486 million gallons per day (Mgal/d). A total of 487 Mgal/d is withdrawn in Upstate counties. Ground-water withdrawals for various uses and related statistics are given in table 1.

For ease of discussion, New York's ground-water resources are separated into two regions—Long Island and Upstate. In this summary, Upstate New York is considered to include all counties north of the Counties of Bronx, New York (Manhattan), and Richmond (Staten Island).

GENERAL SETTING

Upstate New York is located in several physiographic provinces (fig. 1)—the Adirondack, the New England, the St. Lawrence Valley, the Appalachian Plateaus, the Valley and Ridge, the Piedmont, and the Central Lowland. Crystalline rocks dominate the Adirondack and New England provinces. Carbonate rocks are present in outcrop fringes (escarpments) along the northern and eastern edges of the Appalachian Plateaus province, in isolated areas of the St. Lawrence Valley province and in eastern New York. Shale, the most extensive bedrock unit, is present in the Appalachian Plateaus, western Central Lowland, and Valley and Ridge provinces. Sandstone is present in the Piedmont, St. Lawrence Valley, and eastern Central Lowland provinces.

Bedrock in Upstate New York is covered with glacial deposits of till and stratified drift of variable thickness. The till mantles the uplands and small tributary valleys and usually is found beneath stratified drift in the larger valleys. Stratified drift (partly reworked by modern streams) forms the floors of large valleys and flat plains or terraces where bedrock relief is low. The stratified drift includes lacustrine and beach deposits of clay, silt, and sand and meltwater deposits of sand and gravel. The sand and gravel deposits form the principal aquifer systems of Upstate New York (fig. 1).

Recharge to Upstate New York's ground-water systems is derived from precipitation. Average annual precipitation ranges from 32 inches (in.) in the Central Lowland and St. Lawrence Valley provinces to more than 50 in. in the Adirondack and Catskill (eastern Appalachian Plateaus province) regions. In most of Upstate New York the amount of recharge ranges from 1 to 50 percent of the precipitation; however, in the areas of the stratified-drift valley-fill aquifer, the recharge can be considerably greater because of the runoff from surrounding hills (Heath, 1964).

Long Island lies in the Coastal Plain province (fig. 1) and is underlain by drift, principally stratified sand and gravel. Recharge to the Long Island ground-water system is derived solely from precipitation. Average precipitation is 43 in. per year (Cohen and others, 1968). Although recharge rates may differ according to land use, about 50 percent of the precipitation reaches the water table. Some of this ground water flows to the deeper aquifers.

Table 1. Ground-water facts for New York

[Withdrawal data rounded to two significant figures and may not a to totals because of independent rounding. Mgal/d = milli gallons per day; gal/d = gallons per day. Sources: New Y State Department of Environmental Conservation, 1982; York State Department of Health, 1981; Solley, Chase and M 1983]

Population served by ground water, 1980	
Number (thousands)	6
Percentage of total population	
From public water-supply systems:	
Number (thousands)	3.9
Percentage of total population	
From rural self-supplied systems:	
Number (thousands)	2.2
Percentage of total population	
Freshwater withdrawals, 1980	
Surface water and ground water, total (Mgal/d)	7
Ground water only (Mgal/d)	9
Percentage of total	
Percentage of total excluding withdrawals for thermoelectric power	
Category of use	
Public-supply withdrawals:	
Ground water (Mgal/d)	
Percentage of total ground water	
Percentage of total public supply	
Per capita (gal/d)	1
Rural-supply withdrawals:	
Domestic:	
Ground water (Mgal/d)	
Percentage of total ground water	
Percentage of total rural domestic	
Per capita (gal/d)	
Livestock:	
Ground water (Mgal/d)	
Percentage of total ground water	
Percentage of total livestock	
Industrial self-supplied withdrawals:	
Ground water (Mgal/d)	
Percentage of total ground water	
Percentage of total industrial self-supplied:	
Including withdrawals for thermoelectric power	
Excluding withdrawals for thermoelectric power	
Irrigation withdrawals:	
Ground water (Mgal/d)	
Percentage of total ground water	
Percentage of total irrigation	

PRINCIPAL AQUIFERS

UPSTATE

Principal aquifers in Upstate New York consist of un solidated glacial stratified-drift and valley-fill deposits a consolidated clastic and carbonate sedimentary rocks, some which have been metamorphosed. The principal aquifer described below and in table 2; their areal distributic shown in figure 1.

Table 2. Aquifer and well characteristics in New York

[Ft = feet; gal/min = gallons per minute. Sources: Reports of the U.S. Geological Survey]

Aquifer name and description	Well characteristics: Depth (ft) Common range	Yield (gal/min) Common range	Yield (gal/min) May exceed	Remarks
Upstate				
Stratified-drift–Lacustrine and ice-contact deposit aquifers: Sand and gravel. Unconfined.	10 - 300	10 - 50	100	In most areas, deposits consist entirely of sand. Excessive iron concentrations.
Valley-fill deposit aquifers: Sand and gravel. Generally confined.	3 - 200	100 - 1,000	3,000	Glacial outwash and alluvium interbedded with clay and silt in many valleys are most productive water-bearing material in New York. Locally excessive iron or manganese concentrations.
Carbonate-rock aquifers: Limestone, dolomite, and marble. Unconfined in most areas.	10 - 300	50 - 150	200	Carbonate rocks are most productive bedrock unit in State. Water from this unit usually hard and contains hydrogen sulfide gas in some areas. From Niagara Falls to vicinity of Syracuse and in St. Lawrence valley, deep wells yield slightly salty water and, in places, water with a sulfate concentration that may exceed 300 mg/L.
Sandstone aquifers: Includes both sandstone and conglomerate. Confined in most areas.	3 - 500	50 - 100	100	Sandstone is the second most productive bedrock unit in New York. Water commonly slightly hard and has excessive iron concentration locally.
Long Island				
Upper glacial aquifer (includes Jameco and Port Washington aquifers): Outwash deposits (mostly between and south of terminal moraines but also interlayered with till) consist of quartzose sand, fine to very coarse, and gravel, pebble to boulder sized. Unconfined.	50 - 500	50 - 1,000	1,500	Main source of drinking water in central and eastern Suffolk County. Contains high concentration of nitrates and organic compounds in western Long Island. Saline water problems in extreme eastern end of Long Island.
Magothy aquifer: Sand, fine to medium, clayey in part; interbedded with lenses and layers of coarse sand and sandy and solid clay. Gravel is common in basal 50 to 200 ft.	150 - 1,100	50 - 1,200	2,000	Supplies most of the ground water for public-supplied drinking water in Queens, Nassau, and western Suffolk Counties. Saline water in North and South Forks and near Jamaica Bay.
Lloyd aquifer: Sand, fine to coarse, and gravel, commonly with clayey matrix; some lenses and layers of solid and silty clay; locally contains thin lignite layers and iron concretions.	150 - 1,100	50 - 1,000	1,200	Main source of drinking water for northwest shore of Long Island barrier islands to south. Saline water in North and South Forks and extreme west end of barrier islands.

Stratified-Drift Aquifers

Stratified-drift deposits of thick sand and gravel (valley fill) underlie flood plains and terraces along the larger streams and occupy preglacial or glacial valleys that lack perennial streams. The distinguishing feature of the valley-fill aquifers is their linearity and close proximity to contiguous streams (fig. 1). Many valley-fill aquifers are overlain, and thus confined locally, by fine-grained sediments. Induced infiltration from streams commonly occurs where pumped wells are close to the streams (Waller and Finch, 1982). Elsewhere, particularly in the northern one-half of New York, glacial lake and beach sands on uplands also contain significant aquifers.

The stratified drift forms unconfined, shallow aquifers that are susceptible to contamination from surface sources. Quality of water in the stratified drift generally is excellent and suitable for human consumption and most other uses; however, water in some areas contains excessive iron [as high as 0.33 milligrams per liter (mg/L)] and manganese (as high as 0.14 mg/L) concentrations that require treatment in some areas. In some aquifers, water is saline at relatively shallow depth between Buffalo and Syracuse as a result of ground-water dissolution of gypsum and halite beds. Toxic waste contamination has been reported in some valley-fill deposits, and 36 public water-supply wells have been closed as of January 1984 because of organic contamination (L. J. He-

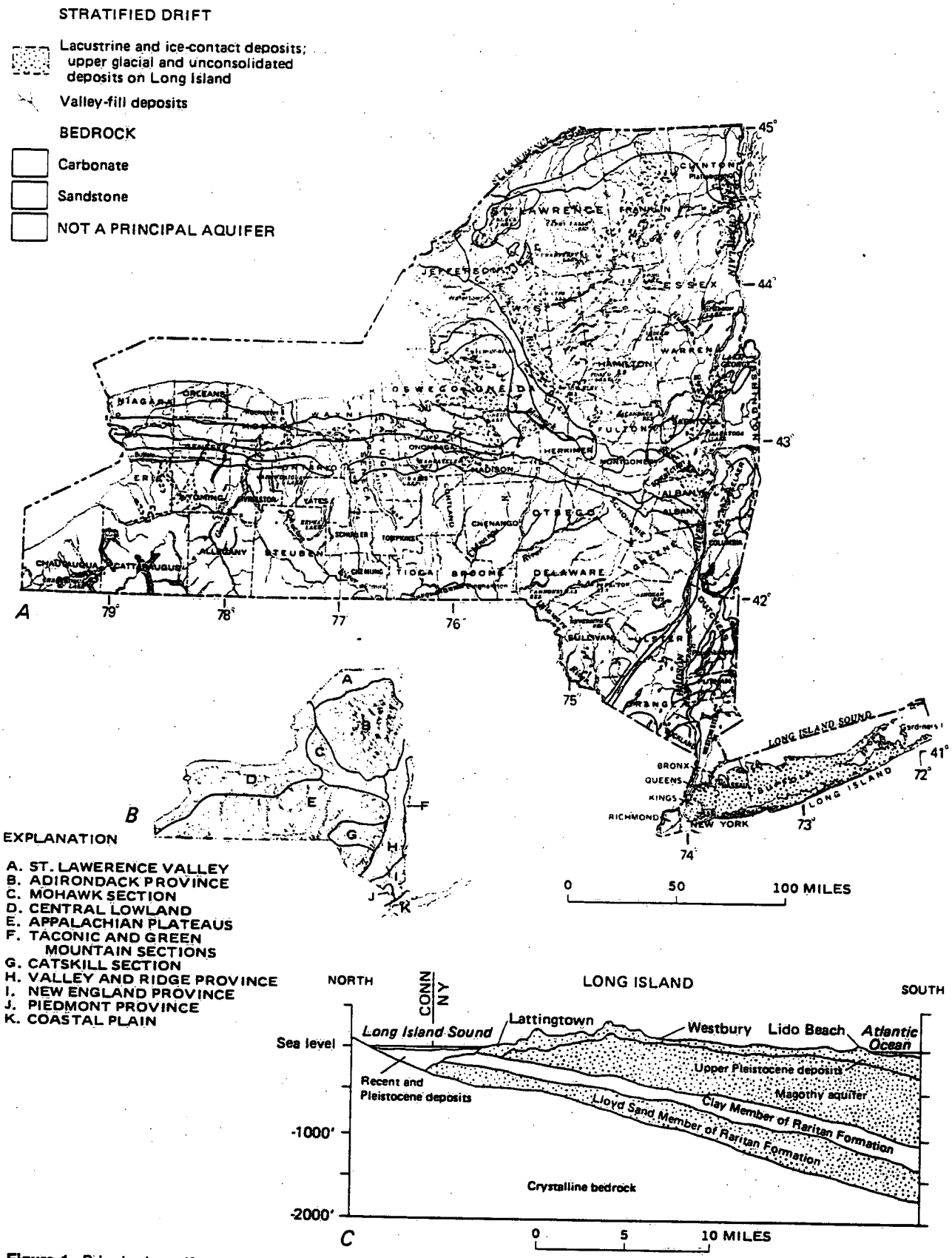

Figure 1. Principal aquifers in New York. *A*, Geographic distribution. *B*, Physiographic diagram and divisions. *C*, Generalized north-south geologic section, Long Island). (See table 2 for more detailed description of the aquifers. Sources: *A*, Heath, 1964; Kantrowitz and Snavely, 1982. *B*, Fenneman, 1938; Raisz, 1954. *C*, Cohen and others, 1968.)

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tling, New York State Department of Health, written commun., 1984).

Carbonate and Sandstone Bedrock Aquifers

Bedrock forms significant aquifers only in the sandstones of the Piedmont and St. Lawrence Valley provinces and in the carbonates, as shown in figure 1. Quality of water generally is suitable for most uses, but a median hardness exceeding 700 mg/L as calcium carbonate is a problem in the carbonate aquifers. Saline water is present at shallow depth in the western one-half of the State.

LONG ISLAND

The principal aquifers of Long Island consist of unconsolidated clastic sediment; they are the upper glacial aquifer of Pleistocene age and the Magothy and Lloyd aquifers of Cretaceous age. These aquifers are continuous throughout Long Island (fig. 1) except along the north shore and northern Kings County, where the formations making up the Magothy and Lloyd have been eroded by glaciation. The aquifers are described below and in table 2; only the upper glacial aquifer is shown in figure 1.

Upper Glacial Aquifer

The upper glacial aquifer consists of the saturated upper part of the highly permeable Pleistocene and Holocene deposits. Saltwater encroachment is a current problem on the islands and peninsulas of eastern Suffolk County and is a potential problem along all of Long Island's shores. Septic systems and agricultural and lawn fertilizers locally have resulted in elevated chloride (300 mg/L) and nitrate-nitrogen (22 mg/L) concentrations (Katz and others, 1977), and pesticides, industrial wastes, and landfill leachate (Kimmel and Braids, 1980) have contributed to pollution of the aquifer.

Magothy Aquifer

The Magothy aquifer consists of the Cretaceous Magothy Formation and the Matawan Group, undifferentiated. The Magothy aquifer and overlying upper glacial aquifer are connected hydraulically except in the south, where they are separated by a confining unit. Saltwater encroachment in this aquifer is a problem in southern coastal areas of Nassau and Queens Counties and at the eastern end of Long Island. Contamination by organic chemicals is a current and potential problem in many parts of the island.

Lloyd Aquifer

The Lloyd aquifer consists of the Lloyd Sand Member of the Raritan Formation. The aquifer is separated from the overlying Magothy aquifer by a thick, fine-grained, confining unit in the Raritan Formation (fig. 1). Saltwater encroachment either already occurs or is a potential problem in the eastern one-half of Suffolk County and in parts of the barrier islands of Nassau County.

GROUND-WATER WITHDRAWALS AND WATER-LEVEL TRENDS

Major areas of ground-water withdrawals and trends in ground-water levels in New York State are indicated in figure 2; the withdrawals are compiled by county and include only those pumping centers that withdraw more than 10 Mgal/d. Pumping centers are plotted at the major pumping-center site or, where major pumping centers are not present, at the center of the county.

UPSTATE

Of the counties that withdraw more than 10 Mgal/d in Upstate New York (New York State Department of Health, 1981), all but two (Orange and Dutchess) draw most of their water from valley-fill aquifers. Orange and Dutchess Counties withdraw more water from bedrock than from valley fill and also have the smallest public supply use of the nine major ground-water users of the Upstate New York counties.

Water levels in the Upstate aquifers respond to withdrawals at nearby pumping centers, but because the withdrawals are relatively low and induced recharge from streams is relatively large, water-level declines are minimal. Two of the hydrographs for Upstate New York (locations 5 and 9, fig. 2) indicate that long-term water-level declines have not occurred. The hydrograph for location 12 reflects a decline in water levels until 1968 when recovery began.

LONG ISLAND

Since the late 1930's, withdrawals for public-supply and industrial uses have increased steadily. Withdrawals for farm use and irrigation are minimal. In general, pumping centers are distributed evenly throughout the four Long Island counties except for major pumping centers that have been developed in each of the three major aquifers in Queens County.

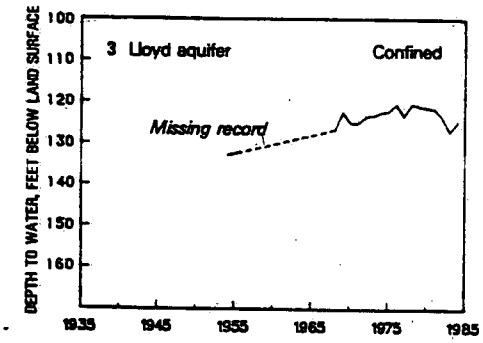
The Long Island hydrographs in figure 2 (location 3) reflect the response of three aquifers to withdrawals in Queens County. The water-level recovery in the Lloyd and Magothy aquifers has resulted from a reduction in pumpage and from the recharge of aquifers with cooling water, decisions implemented to counteract saltwater encroachment. Water-level changes in the two eastern counties of Long Island, Nassau and Suffolk, generally reflect changes in amounts of precipitation rather than changes in pumping.

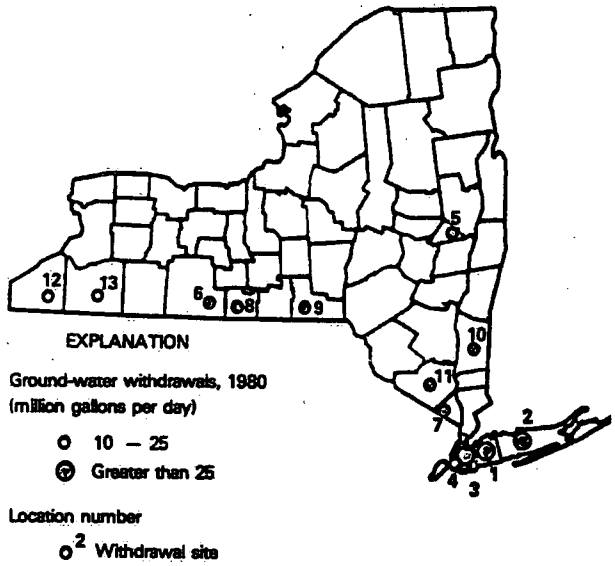
GROUND-WATER MANAGEMENT

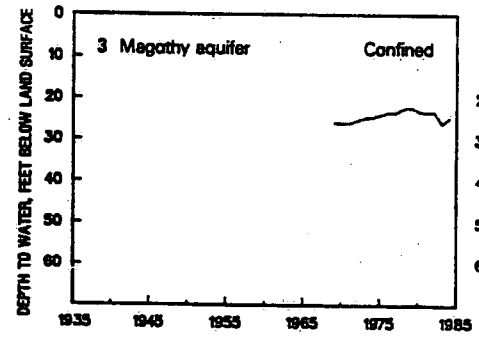
The two State agencies with responsibilities most directly related to ground-water management are the New York State Department of Health (DOH) and the New York State Department of Environmental Conservation (DEC).

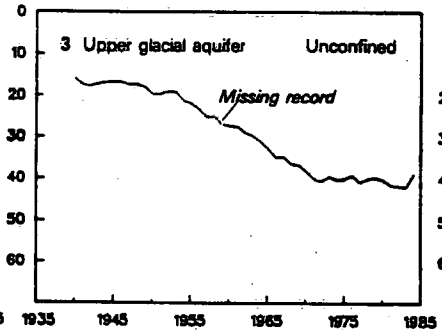
Under the Public Health Law and Part 5 of the State Sanitary Code, DOH ensures that public water-supply systems are operated properly and maintained to ensure a safe and adequate supply. The program involves regulation, periodic monitoring of water quality, inspection of systems, emergency response to problems of supply or quality, laboratory services, and establishment of drinking-water standards.

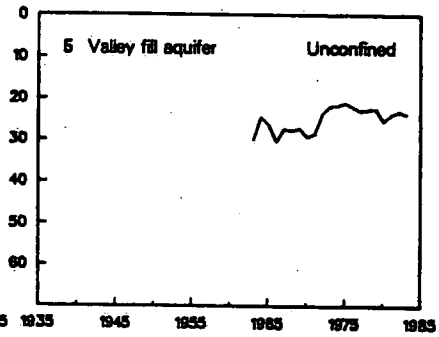
DEC is responsible for administering the State's environmental-quality and natural-resource programs, including those relating to the control of water pollution and management of water resources. Major elements of the DEC's water program that are integral to ground-water management include water-resources planning, ambient water-quality standards and classification of ground water, and water-discharge permits and programs that provide for the development, operation, and maintenance of municipal wastewater facilities. The DEC established a system of ground-water classifications and standards in 1967; the most recent revision was in 1978. Also, the New York State Pollutant Discharge Elimination System Program, which regulates point-source municipal, industrial, and commercial wastewater discharges, including those to the subsurface, is administered by the DEC. The State Public Water Supply Permit Program, administered by DEC, requires that new ground-water withdrawals for public supply be approved by both DEC and DOH. On Long Island, where groundwater quantity is a major issue, the DEC administers a well-permit program that has regulatory control of all major withdrawals.

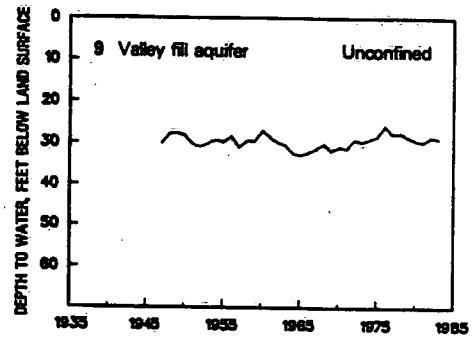


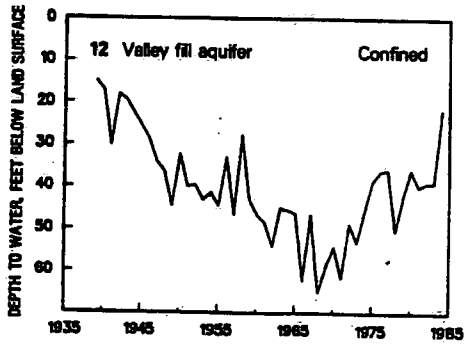












WITHDRAWAL SITES

No. on map	Geographic area	Aquifer	Principal uses
		Long Island	
1	Nassau	Upper glacial, Magothy, Lloyd.	Public supply.
2	Suffolk	....do	Do.
3	Queens	....do	Do.
4	Kings	Upper glacial	Industrial.
		Upstate	
5	Schenectady	Valley fill	Public supply.
6	Steuben	....do	Do.
7	Rockland	Valley fill, sandstone	Do.
8	Broome	Valley fill	Do.
9	Chemung	....do	Do.
10	Dutchess	Carbonate, valley fill	Rural domestic.
11	Orange	Shale, valley fill	Do.
12	Chautauqua	Valley fill	Public supply.
13	Cattaraugus	....do	Do.

Figure 2. Areal distribution of major ground-water withdrawals and graphs of greatest depth to water in selected wells in New York. (Sources: Withdrawal and water-level data from U.S. Geological Survey files.)

The Long Island aquifer system has been designated as a "sole-source" aquifer by the U.S. Environmental Protection Agency. In addition to the DEC and DOH, several local agencies on Long Island implement major parts of the overall program to manage and protect the ground water. Local agencies with major regulatory responsibilities include the Nassau, Suffolk, and New York City Departments of Health. Other local agencies with important ground-water-related activities include the Long Island Regional Planning Board, the Suffolk County Water Authority, the Nassau County Department of Public Works, and the New York City Department of Environmental Protection.

Under Section 208 of the Clean Water Act, the DEC recently has prepared Ground-water Management Programs for both Long Island and Upstate New York. All of the previously mentioned local agencies were major participants in developing the program on Long Island.

In addition to the above agencies, two interstate river-basin commissions— the Delaware River Basin and the Susquehanna River Basin Commission—share limited ground-water management responsibility with the State.

SELECTED REFERENCES

Cohen, Philip, Franke, O. L., and Foxworthy, B. L., 1968, An atlas of Long Island's water resources: New York Water Resources Commission Bulletin 62, 117 p.

Fenneman, N. M., 1938, Physiography of the eastern United States: New York and London, McGraw-Hill, 714 p.

Heath, R. C., 1964, Ground water in New York: New York State Water Resources Commission Bulletin GW-51.

Kantrowitz, I. H., and Snavely, D. S., 1982, Availability of ground water from aquifers in upstate New York: U.S. Geological Survey Open-File Report 82-47, (map).

Katz, B. G., Ragone, S. E., and Harr, C. A., 1977, Nitrogen in water in Nassau and Suffolk Counties, Long Island, New York in 1971: U.S. Geological Survey Open-File Report 77-433, 46 p.

Kimmel, G. E., and Braids, O. C., 1980, Leachate plumes in ground water from Babylon and Islip landfills, Long Island, New York: U.S. Geological Survey Professional Paper 1085, 38 p.

McClymonds, N. E., and Franke, O. L., 1972, Water-transmitting properties of aquifers on Long Island, N.Y.: U.S. Geological Survey Professional Paper 627-E, 24 p.

New York State Department of Environmental Conservation, Division of Water, 1982, Report of Long Island groundwater withdrawal during 1981: Stony Brook, 14 p.

New York State Department of Health, 1981, Report on ground-water dependence in New York State: Albany, Bureau of Public Water Supply report, 49 p.

New York State Department of Health, 1982, New York State Atlas of Community Water System sources: Albany, Bureau of Public Water Supply Protection, 79 p.

Raisz, Erwin, 1954, Physiographic diagram, p. 59, *in* U.S. Geological Survey, 1970, National atlas of the United States: Washington, D.C., U.S. Geological Survey, 417 p.

Schroeder, R. A., and Snavely, D. S., 1981, Survey of selected organic compounds in aquifers of New York State excluding Long Island: U.S. Geological Survey Water-Resources Investigations 81-47, 60 p.

Solley, W. D., Chase, E. B., and Mann, W. B., IV, 1983, Estimated use of water in the United States in 1980: U.S. Geological Survey Circular 1001, 56 p.

Voight, William, Jr., 1972, The Susquehanna Compact: New Brunswick, N. J., Rutgers University Press, 336 p.

Waller, R. M., and Finch, A. J., 1982, Atlas of eleven selected aquifers in upstate New York: U.S. Geological Survey Water-Resources Investigations Open-File Report 82-553, 255 p.

Prepared by Roger M. Waller, Edward J. Koszalka and Deborah S. Snavely

For further information contact District Chief, U.S. Geological Survey, P.O. Box 1669, Albany, NY 12201

V.E.:EPA Site Inspection

EPA

POTENTIAL HAZARDOUS WASTE SITE SITE INSPECTION REPORT

PART 1 - SITE LOCATION AND INSPECTION INFORMATION

I. IDENTIFICATION	
01 State	02 Site Number
NY	152027

II. SITE NAME AND LOCATION

01 Site Name (Legal, common, or descriptive name of site)	02 Street, Route No., or Specific Location Identifier
US Electroplating Corporation	100 Field Street

03 City	04 State	05 Zip Code	06 County	07 County Code	08 Cong. Dist.
West Babylon	NY	11704	Suffolk	103	

09 Coordinates Latitude	Longitude	10 Type of Ownership (Check one)
40 42 02.	73 2 32 0 .	[X] A. Private [ ] B. Federal ____ [ ] C. State [ ] D. County [ ] E. Municipal [ ] F. Other ____ [ ] G. Unknown

III. INSPECTION INFORMATION

01 Date of Inspection	02 Site Status	03 Years of Operation
08/08/88 (Month Day Year)	[X] Active [ ] Inactive	1971 (Beginning Year) | Present (Ending Year) [ ] Unknown

04 Agency Performing Inspection (Check all that apply)
[ ] A. EPA [ ] B. EPA Contractor ____ (Name of Firm) [ ] C. Municipal [ ] D. Municipal Contractor ____ (Name of Firm)
[ ] E. State [X] F. State Contractor LeRoy Callendar (Name of Firm) [ ] G. Other ____ (Specify)

05 Chief Inspector	06 Title	07 Organization	08 Telephone No.
K. Murray		LeRoy Callendar	(212) 989-2900

09 Other Inspectors	10 Title	11 Organization	12 Telephone No.
H. Cooke Vitolo		LeRoy Callendar	(212) 989-2900
			( )
			( )
			( )
			( )

13 Site Representatives Interviewed	14 Title	15 Address	16 Telephone No.
Robert Birnbaum	Owner	100 Field St., W. Babylon	(516) 293-1998
Larry Donnelly	Consulting Engineer	55 Southern Boulevard Nesconset, NY	(516) 979-7788
			( )
			( )
			( )

17 Access Gained By (Check one)	18 Time of Inspection	19 Weather Conditions
[X] Permission [ ] Warrant	1030	Sunny, Warm

IV. INFORMATION AVAILABLE FROM

01 Contact	02 Of (Agency/Organization)	03 Telephone No.
William Roberts	SCDHS	(516) 451-4627

04 Person Responsible for Site Inspection Form	05 Agency	06 Organization	07 Telephone No.	08 Date
H. Cooke Vitolo		LC/PC	(212) 989-2900	8 / 8 / 88 (Month Day Year)

EPA Form 2070-13 (7-81)

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT

PART 2 - WASTE INFORMATION

I. IDENTIFICATION	
01 State	02 Site Number
NY	152027

II. WASTE STATES, QUANTITIES, AND CHARACTERISTICS

01 Physical States (Check all that apply)

[ ] A. Solid
[ ] B. Powder, Fines
[X] 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 65
No. of Drums _____

03 Waste Characteristics (Check all that apply)

[X] A. Toxic
[ ] B. Corrosive
[ ] C. Radioactive
[X] 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			
PSD	Pesticides			
OCC	Other organic chemicals			
IOC	Inorganic chemicals			
ACD	Acids			
BAS	Bases			
MES	Heavy Metals	65	CY	Unknown Volume

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
MES	Copper	7440-50-8	UGST	60	Mg/l
MES	Iron	7439-89-6	UGST	11	Mg/l
MES	Lead	7439-92-1	UGST	0.2	Mg/l
MES	Nickel	7440-02-0	UGST	33	Mg/l
MES	Cadmium	7440	UGST	6	Mg/l

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)

SCDHS

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT

PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

I. IDENTIFICATION	
01 State	02 Site Number
NY	152027

II. HAZARDOUS CONDITIONS AND INCIDENTS (Cont.)

01 [ ] J. Damage to Flora — 02 [ ] Observed (Date _____) [ ] Potential [ ] Alleged
04 Narrative Description:

N/A

01 [ ] K. Damage to Fauna — 02 [ ] Observed (Date _____) [ ] Potential [ ] Alleged
04 Narrative Description:

N/A

01 [ ] L. Contamination of Food Chain — 02 [ ] Observed (Date _____) [ ] Potential [ ] Alleged
04 Narrative Description:

N/A

01 [ ] M. Unstable Containment of Wastes (Spills/Runoff/Standing liquids, Leaking drums) — 02 [ ] Observed (Date _____) [ ] Potential [ ] Alleged
03 Population Potentially Affected _____ 04 Narrative Description:

N/A

01 [ ] N. Damage to Offsite Property — 02 [ ] Observed (Date _____) [ ] Potential [ ] Alleged
04 Narrative Description:

N/A

01 [ ] O. Contamination of Sewers, Storm/Drains, WWTPs — 02 [ ] Observed (Date _____) [ ] Potential [ ] Alleged
04 Narrative Description:

N/A

01 [ ] P. Illegal/Unauthorized Dumping — 02 [ ] Observed (Date _____) [ ] Potential [ ] Alleged
04 Narrative Description:

N/A

05 Description of Any Other Known, Potential, or Alleged Hazards

N/A

III. TOTAL POPULATION POTENTIALLY AFFECTED _____

IV. COMMENTS

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

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT

PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

I. IDENTIFICATION	
01 State	02 Site Number
NY	152027

II. HAZARDOUS CONDITIONS AND INCIDENTS

01 [X] A. Groundwater Contamination
03 Population Potentially Affected 113,000
02 [X] Observed (Date 11/20/88) [ ] Potential [ ] Alleged
04 Narrative Description:

Heavy metal, purgeable organic and pesticide contamination was detected in groundwater samples collected from on site monitoring wells.

01 [ ] B. Surface Water Contamination
03 Population Potentially Affected _____
02 [ ] Observed (Date _____) [ ] Potential [ ] Alleged
04 Narrative Description:

N/A

01 [ ] C. Contamination of Air
03 Population Potentially Affected _____
02 [ ] Observed (Date _____) [ ] Potential [ ] Alleged
04 Narrative Description:

N/A

01 [ ] D. Fire/Explosive Conditions
03 Population Potentially Affected _____
02 [ ] Observed (Date _____) [ ] Potential [ ] Alleged
04 Narrative Description:

N/A

01 [ ] E. Direct Contact
03 Population Potentially Affected _____
02 [ ] Observed (Date _____) [ ] Potential [ ] Alleged
04 Narrative Description:

N/A

01 [X] F. Contamination of Soil
03 Area Potentially Affected 0.2 (Acres)
02 [ ] Observed (Date 11/88) [ ] Potential [ ] Alleged
04 Narrative Description:

Analysis of soil samples collected during the installation of the monitoring wells showed the presence of heavy metals and purgeable organics above background conditions.

01 [X] G. Drinking Water Contamination
03 Population Potentially Affected 113,000
02 [ ] Observed (Date _____) [X] Potential [ ] Alleged
04 Narrative Description:

The contaminated aquifer is hydrolically linked to the Magothy Aquifer from which most drinking water sources on Long Island draw.

01 [ ] H. Worker Exposure/Injury
03 Workers Potentially Affected _____
02 [ ] Observed (Date _____) [ ] Potential [ ] Alleged
04 Narrative Description:

N/A

01 [ ] I. Population Exposure/Injury
03 Population Potentially Affected _____
02 [ ] Observed (Date _____) [ ] Potential [ ] Alleged
04 Narrative Description:

N/A

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT

PART 4 - PERMIT AND DESCRIPTIVE INFORMATION

I. IDENTIFICATION	
01 State	02 Site Number
NY	152027

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				
[X] G. State (Specify)	NY0084867	8/29/75	8/29/80	SPDES
[ ] 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	[X] A. Buildings On Site
[ ] B. Piles			[ ] B. Underground Injection	
[X] C. Drums, Above Ground	Unknown		[ ] C. Chemical/Physical	
[ ] D. Tank, Above Ground			[ ] D. Biological	
[ ] E. Tank, Below Ground			[ ] E. Waste Oil Processing	
[ ] F. Landfill			[ ] F. Solvent Recovery	06 Area of Site
[ ] G. Landfarm			[ ] G. Other Recycling Recovery	
[ ] H. Open Dump			[ ] H. Other _____ (Specify)	0.1 Acres
[ ] I. Other _____ (Specify)				

07 Comments

IV. CONTAINMENT

01 Containment of Wastes (Check one)
[ ] A. Adequate, Secure [X] B. Moderate [ ] C. Inadequate, Poor [ ] D. Insecure, Unsound, Dangerous

02 Description of Drums, Diking, Liners, Barriers, etc.
Six inch high dikes were constructed along the doorways of the building, however, they are insufficient to prevent overflow from leaving the building.

V. ACCESSIBILITY

01 Waste Easily Accessible: [X] Yes [ ] No
02 Comments:

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

SCDHS

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT

PART 5 - WATER, DEMOGRAPHIC, AND ENVIRONMENTAL DATA

I. IDENTIFICATION

01 State	02 Site Number
NY	152027

II. DRINKING WATER SUPPLY

01 Type of Drinking Supply (Check as applicable)	Surface	Well	02 Status: Endangered	Affected	Monitored	03 Distance to Site
Community	A. [ ]	B. [X]	A. [ ]	B. [ ]	C. [ ]	A _____ (mi)
Non-community	D. [ ]	D. [ ]	D. [ ]	E. [ ]	F. [ ]	B _____ (mi)

III. GROUNDWATER

01 Groundwater Use in Vicinity (Check one)

[ ] A. Only Source for Drinking
[X] 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 Groundwater 113,000
03 Distance to Nearest Drinking Water well _____ (mi)

04 Depth to Groundwater	05 Direction of Groundwater Flow	06 Depth to Aquifer of Concern	07 Potential Yield of Aquifer	08 Sole Source Aquifer
11.8 (ft)	Northeast	11.8 (ft)	_____ (gpd)	[ ] Yes [ ] No

09 Description of Wells (including usage, depth, and location relative to population and buildings)

Public water supply wells, irrigation, fire and industrial wells all draw water from the same aquifer.

10 Recharge Area		11 Discharge Area	
[ ] Yes	Comments:	[ ] Yes	Comments:
[ ] No		[ ] No	

IV. SURFACE WATER

01 Surface Water (Check one)

[ ] A. Reservoir Recreation Drinking Water Source
[ ] B. Irrigation Economically Important Resources
[ ] C. Commercial, Industrial
[X] D. Not Currently Used

02 Affected/Potentially Affected Bodies of Water

Name:	Affected	Distance to Site
	[ ]	_____ (mi)
	[ ]	_____ (mi)
	[ ]	_____ (mi)

V. DEMOGRAPHIC AND PROPERTY INFORMATION

01 Total Population Within

One (1) Mile of Site	Two (2) Miles of Site	Three (3) Miles of Site
A. 5,365 No. of Persons	B. _____ No. of Persons	C. _____ No. of Persons

02 Distance to Nearest Population 0.25 (mi)

03 Number of Buildings Within Two (2) Miles of Site _____

04 Distance to Nearest Off-Site Building <0.1 (mi)

05 Population Within Vicinity of Site (Provide narrative description of nature of population within vicinity of site, e.g., rural, village, densely populated urban area)

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT

PART 5 - WATER, DEMOGRAPHIC, AND ENVIRONMENTAL DATA

I. IDENTIFICATION	
01 State	02 Site Number
NY	152027

VI. ENVIRONMENTAL INFORMATION

01 Permeability of Unsaturated Zone (Check one)

[ ] A. 10^{-6} - 10^{-8} cm/sec [ ] B. 10^{-4} - 10^{-6} cm/sec [ ] C. 10^{-4} - 10^{-3} cm/sec [X] D. Greater Than 10^{-3} cm/sec

02 Permeability of Bedrock (Check one)

[ ] A. Impermeable (Less than 10^{-6} cm/sec) [ ] B. Relatively Impermeable (10^{-4} - 10^{-6} cm/sec) [ ] C. Relatively Permeable (10^{-2} - 10^{-4} cm/sec) [ ] D. Very Permeable (Greater than 10^{-2} cm/sec)

03 Depth to Bedrock	04 Depth of Contaminated Soil Zone	05 Soil pH
1400 (ft)	Unknown (ft)	Unknown

06 Net Precipitation	07 One Year 24-Hour Rainfall	08 Slope: Site Slope	Direction of Site Slope	Terrain Average Slope
15 (in)	2.7 (in)	<3 %	Southeast	<3 %

09 Flood Potential

Site is in - Year Floodplain

10 [ ] Site is on Barrier Island, Coastal High Hazard Area, Riverine Floodway

11 Distance to Wetlands (5 acre minimum)

ESTUARINE: A. _____ (mi)

OTHER: B. 2 (mi)

12 Distance to Critical Habitat (of endangered species)

<¼ (mi)

Endangered Species: Sandplain Gerardia (Agalinus acuta)

13 Land Use in Vicinity

Distance to:

COMMERCIAL/INDUSTRIAL	RESIDENTIAL AREA; NATIONAL/STATE PARKS, FORESTS, OR WILDLIFE RESERVES	AGRICULTURAL LANDS: PRIME AG LAND	AGRICULTURAL LANDS: AG LAND
A. <0.1 (mi)	B. <0.25 (mi)	C. — (mi)	D. — (mi)

14 Description of Site in Relation to Surrounding Topography

Majority of site is paved and surrounded by other buildings in the industrial complex. Terrain slope is less than 3 percent.

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

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT

PART 6 - SAMPLE AND FIELD INFORMATION

I. IDENTIFICATION	
01 State	02 Site Number
NY	152027

II. SAMPLES TAKEN

Sample Type	01 Number of Samples Taken	02 Samples Sent to	03 Estimated Date Results Available
Groundwater	4	H2M Laboratories	4/89
Surface Water			
Waste			
Air			
Runoff			
Spill			
Soil	2	H2M Laboratories	4/89
Vegetation			
Other/SEDIMENT	3	H2M Laboratories	4/89

III. FIELD MEASUREMENTS TAKEN

01 Type	02 Comments
HNu	Background readings only

IV. PHOTOGRAPHS AND MAPS

01 Type [ ] Ground [ ] Aerial

02 In Custody of _____ (Name of organization or individual)

03 Maps [X] Yes [ ] No

04 Location of Maps: LeRoy Callendar, PC 236 W. 26th New York, NY

V. OTHER FIELD DATA COLLECTED (Provide narrative description of sampling activities)

N/A

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

LeRoy Callendar Phase II Investigation

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT

PART 7 - OWNER INFORMATION

I. IDENTIFICATION	
01 State	02 Site Number
NY	152027

II. CURRENT OWNER(S)			PARENT COMPANY (If applicable)		
01 Name Robert Birnbaum	02 D+B Number		08 Name	09 D+B Number	
03 Street Address (P.O. Box, RFD #, etc.) 100 Field Street	04 SIC Code 3471		10 Street Address (P.O. Box, RFD #, etc.)	11 SIC Code	
05 City West Babylon	06 State NY	07 Zip Code 11704	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)

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT

PART 8 - OPERATOR INFORMATION

I. IDENTIFICATION	
01 State	02 Site Number
NY	152027

II. CURRENT OPERATOR (Provide if different from owner)			OPERATOR'S PARENT COMPANY (if applicable)		
01 Name N/A		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)

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT

PART 9 - GENERATOR/TRANSPORTER INFORMATION

I. IDENTIFICATION	
01 State	02 Site Number
NY	152027

II. ON-SITE GENERATOR

01 Name	02 D+B Number	
US Electroplating		
03 Street Address (P.O. Box, RFD #, etc.)	04 SIC Code	
100 Field Street	3471	
05 City / 06 State	07 Zip Code	
W. Babylon / NY	11704	

III. OFF-SITE GENERATOR(S)

01 Name	02 D+B Number	01 Name	02 D+B Number
N/A			
03 Street Address (P.O. Box, RFD #, etc.)	04 SIC Code	03 Street Address (P.O. Box, RFD #, etc.)	04 SIC Code
05 City / 06 State	07 Zip Code	05 City / 06 State	07 Zip Code
01 Name	02 D+B Number	01 Name	02 D+B Number
03 Street Address (P.O. Box, RFD #, etc.)	04 SIC Code	03 Street Address (P.O. Box, RFD #, etc.)	04 SIC Code
05 City / 06 State	07 Zip Code	05 City / 06 State	07 Zip Code

IV. TRANSPORTER(S)

01 Name	02 D+B Number	01 Name	02 D+B Number
Unknown			
03 Street Address (P.O. Box, RFD #, etc.)	04 SIC Code	03 Street Address (P.O. Box, RFD #, etc.)	04 SIC Code
05 City / 06 State	07 Zip Code	05 City / 06 State	07 Zip Code
01 Name	02 D+B Number	01 Name	02 D+B Number
03 Street Address (P.O. Box, RFD #, etc.)	04 SIC Code	03 Street Address (P.O. Box, RFD #, etc.)	04 SIC Code
05 City / 06 State	07 Zip Code	05 City / 06 State	07 Zip Code

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

SCDHS

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT

PART 10 - PAST RESPONSE ACTIVITIES

I. IDENTIFICATION	
01 State	02 Site Number
NY	152027

II. PAST RESPONSE ACTIVITIES

01 [ ] A. Water Supply Closed — 02 Date _____ 03 Agency _____
04 Description:
N/A

01 [ ] B. Temporary Water Supply Provided — 02 Date _____ 03 Agency _____
04 Description:
N/A

01 [ ] C. Permanent Water Supply Provided — 02 Date _____ 03 Agency _____
04 Description:
N/A

01 [ ] D. Spilled Material Removed — 02 Date _____ 03 Agency _____
04 Description:
N/A

01 [ ] E. Contaminated Soil Removed — 02 Date _____ 03 Agency _____
04 Description:
N/A

01 [ ] F. Waste Repackaged — 02 Date _____ 03 Agency _____
04 Description:
N/A

01 [ ] G. Waste Disposed Elsewhere — 02 Date _____ 03 Agency _____
04 Description:
N/A

01 [ ] H. On Site Burial — 02 Date _____ 03 Agency _____
04 Description:
N/A

01 [ ] I. In Situ Chemical Treatment — 02 Date _____ 03 Agency _____
04 Description:
N/A

01 [ ] J. In Situ Biological Treatment — 02 Date _____ 03 Agency _____
04 Description:
N/A

01 [ ] K. In Situ Physical Treatment — 02 Date _____ 03 Agency _____
04 Description:
N/A

01 [ ] L. Encapsulation — 02 Date _____ 03 Agency _____
04 Description:
N/A

01 [ ] M. Emergency Waste Treatment — 02 Date _____ 03 Agency _____
04 Description:
N/A

01 [ ] N. Cutoff Walls — 02 Date _____ 03 Agency _____
04 Description:
N/A

01 [ ] O. Emergency Diking/Surface Water Diversion — 02 Date _____ 03 Agency _____
04 Description:
N/A

01 [ ] P. Cutoff Trenches/Sump — 02 Date _____ 03 Agency _____
04 Description:
N/A

01 [ ] Q. Subsurface Cutoff Wall — 02 Date _____ 03 Agency _____
04 Description:
N/A

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT

PART 10 - PAST RESPONSE ACTIVITIES

I. IDENTIFICATION	
01 State	02 Site Number
NY	152027

II. PAST RESPONSE ACTIVITIES (Cont.)

01 [ ] R. Barrier Walls Constructed — 02 Date _____ — 03 Agency _____
04 Description:
N/A

01 [ ] S. Capping/Covering — 02 Date _____ — 03 Agency _____
04 Description:
N/A

01 [ ] T. Bulk Tankage Repaired — 02 Date _____ — 03 Agency _____
04 Description:
N/A

01 [ ] U. Grout Curtain Constructed — 02 Date _____ — 03 Agency _____
04 Description:
N/A

01 [ ] V. Bottom Sealed — 02 Date _____ — 03 Agency _____
04 Description:
N/A

01 [ ] W. Gas Control — 02 Date _____ — 03 Agency _____
04 Description:
N/A

01 [ ] X. Fire Control — 02 Date _____ — 03 Agency _____
04 Description:
N/A

01 [ ] Y. Leachate Treatment — 02 Date _____ — 03 Agency _____
04 Description:
N/A

01 [ ] Z. Area Evacuated — 02 Date _____ — 03 Agency _____
04 Description:
N/A

01 [ ] 1. Access to Site Restricted — 02 Date _____ — 03 Agency _____
04 Description:
N/A

01 [ ] 2. Population Relocated — 02 Date _____ — 03 Agency _____
04 Description:
N/A

01 [X] 3. Other Remedial Activities — 02 Date _____ — 03 Agency _____
04 Description:

UGSTS abandoned and filled with Sand.
Dike constructed around indoor drum storage.

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

SCDHS

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT

PART 11 - ENFORCEMENT INFORMATION

I. IDENTIFICATION	
01 State	02 Site Number
NY	152027

II. ENFORCEMENT INFORMATION

01 Past Regulatory/Enforcement Action [X] Yes [ ] No

02 Description of Federal, State, Local Regulatory/Enforcement Action

Hearing at SCDHS on March 9, 1982 for violation of Suffolk County Health Code. US Electroplating fined $200 and directed to correct violations.

Order on consent issued by NYSDEC in April 1980 for violation of the Environmental Conservation Law. US Electroplating fined $2500.00.

Order on consent issued by SCDHS for Article 12 violations of Suffolk County Sanitary Code.

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

APPENDIX A

Work Plan and Site Reconnaissance Report

COPY OF WORK PLAN

U.S. ELECTROPLATING SITE
DEC I.D. NO. 152027
SUFFOLK COUNTY, NEW YORK

GENERAL:

Based on this work plan for which there has already been regional and central office comments and site visits, a costing sheet is to be developed and attached by the consultant. This work plan and associated costs will be made part of this cost plus fixed fee contract with a limiting upset figure. Unless otherwise stated in this work plan, the work shall conform to the concepts of Exhibit 1, Generic Work Plan - State Superfund Program - Phase II Investigations and Exhibit 3, Schedule 4 of the contract document.

A copy of this work plan and Exhibits 1 and 3 of the contract must be taken to the field by the consultant during the Phase II field activities. The representative must display, through his action, familiarity with the provisions of the work plan and exhibits. Failure to provide any of the above documents at the NYSDEC representatives' request or for the consultant to show inadequate comprehension of their contents are sufficient grounds for NYSDEC to halt the Phase II field work.

INTRODUCTION:

U.S. Electroplating Corp. is located at 100 Field St., West Babylon, New York (Figure 1). The site is located in southwestern Suffolk County, approximately 2 miles east of the Nassau County line. U.S. Electroplating currently occupies the east half of a building on the site. The site currently consists of a building, 3 buried concrete leaching tanks filled with soil, and no longer in use, and a storm drain on the north side of the building. Located within the building are 55 gallon polypropylene drums used for waste water storage. The site is located within an industrial park adjacent to other manufacturing and commercial facilities. The Babylon landfill is located 500 feet to the east, and several cemeteries are located to the north, west and south of the site. Most of the area immediately surrounding the site is paved.

Groundwater in the site area occurs in unconsolidated sediments of Pleistocene and Cretaceous age. The site area is directly underlain by glacial outwash deposits consisting of coarse sand and gravel. These deposits comprise the upper glacial aquifer and were found to be approximately 74 feet thick at the Babylon Landfill just east of the site (Kimmel and Braids, 1980). Groundwater in the upper glacial aquifer occurs at an elevation of 48 feet above MSL which translates to approximatley 17 feet below the ground surface at the site. The water table has a hydraulic gradient of 8 feet per mile in a southeasterly direction.

Underlying the upper glacial aquifer is the Gardiners Clay. This deposit is approximately 10 feet thick under the site area and acts as a barrier to the vertical movement of water because of its low hydraulic conductivity. The second major water bearing unit underlying the site area is the Cretaceous Magothy Formation, and is hydraulically linked to the upper glacial aquifer. It is believed to be approximately 800 feet thick in the site area. The Magothy aquifer directly overlies the clay member of the Cretaceous Raritan Formation. The clay in turn overlies and confines the Lloyd Sand member of the Raritan Formation, which constitutes the deep confined aquifer in the site area. Underlying the members of the Raritan Formation is crystalline bedrock of Precambrian age.

A Phase I study was conducted on the site by NYSDEC. The data available was generally adequate to prepare a preliminary HRS score. The lack of any groundwater data in the immediate vicinity of the site dictates the need for a Phase II investigation. The concern is that past hazardous waste releases from the site may be contributing to the contamination of the groundwater, which is a primary drinking water supply for this area.

OBJECTIVE:

There has been no reported previous groundwater or soil sampling in the immediate vicinity of the site. The objectives of the Phase II activities are to collect essential field information to adequately assess if contamination has been released from the site, determine whether a significant threat to human health or the environment exists, to prepare final HRS Scores and make recommendation for possible future actions at the site.

For the purposes of report preparation, the consultant is to compile all data available from NYSDEC. This includes current file information as well as the Phase I report, which contains a record search of various other agencies.

SITE RECONNAISSANCE:

A site visit was conducted on November 8, 1985 by NYSDEC personnel. Since the site is located within an industrial park, the primary difficulty in conducting the Phase II field work will be from the congested nature of the area. Exact location of all buried power lines, underground gas lines, water mains, sewage pipes, and storm water pipes must be obtained by the consultant from the appropriate utility and/or municipal department prior to the arrival of the drill rig and commencement of drilling. All due caution must be exercised by the driller with respect to overhead power lines, telephone lines and/or cables (see Figure 2).

From the site visit the proposed locations of monitoring wells were determined (see Figure 3). The exact location of the monitoring well locations will be determined in the field by Department oversight personnel and the consultants representative. Permission to place GW-3 will have to be obtained from the adjacent property owner to the south (Miracle Graphic Supplies Inc. was occupant at time of site visit). NYSDEC will obtain permission for site access at least ten (10) days prior to field work being started.

FIELD INVESTIGATION:

The project has been sub-divided into specific tasks. Table I briefly summarizes each task. Field efforts required to complete this investigation are described herein:

Geophysical Survey:

Due to the congested nature of the area on and around the site (overhead power lines, underground piping, etc.) there will be no geophysics utilized at this site.

Test Boring and Well Installations:

Monitoring wells will be installed to provide data pertinent to both water chemistry and characterization of the stratigraphy and ground water regime at the site. Three monitoring wells are to be installed, at the approximate locations shown in Figure 3. Finalized well locations will depend on (1) the utility search in order to avoid underground obstacles and on (2) accessibility around the buildings. This decision will be made jointly by the consultant and NYSDEC representatives.

One well (MW-1) will be installed at a presumed upgradient location, on the north side of the existing facility. This well will provide representative samples of the ground water flowing into the area.

Two monitoring wells will be required to monitor downgradient flow directions and water quality. Wells MW-2 and MW-3 will be installed at the approximate locations shown in Figure 3. These locations will provide an opportunity for interception of any contaminant plume, from the waste alleged to have leaked from the underground storage tanks.

All monitoring wells will be installed so as to sample the upper 10 feet of ground water. It is assumed that the groundwater table will be within 20 feet of the ground surface and that total well depth will average 30 feet.

Borings will be advanced through the soil by hollow stem augers or driven casing, with continuous split spoon sampling through the upper 15 feet of soil, and at 5-foot intervals below 15 feet. Soil samples will be classified in the field by a field geologist, engineer or adequately experienced technical staff. A grain size analyses and Atterberg limits tests will be performed at every change in subsurface lithology, as well as one such analysis in the screened interval. For costing purposes, it will be assumed that total of ten (10) grain size analysis and Atterberg limits tests will be performed. All work will be done in accordance with the Generic Work Plan, Exhibit 1, and Guidelines for Exploratory Boring, Exhibit 3 of this contract (Schedule 4).

Permeability testing, preferably a slug test, of each well will be done during evacuation of the well. Ground water elevation readings will be taken in each well before and immediately after development. Each well will be developed as soon as its recovery is completed and as soon as practically possible before or during the drilling operations of the next well. Each well will be developed to the point that the turbidity of the recovered well water is 50 Nephelometric Turbidity units (NTu) or less. A nephelometer will be brought to the field for purpose of making this measurement. A signed statement will be provided to the Department that the turbidity was less than 50 NTu for each well immediately after development if a Department representative is not present when the measurements are taken.

Survey

To allow for accurate water level measurements, each of the well elevations will be determined relative to a USGS datum. If a USGS datum is not within 200 feet of the site, the elevation measurements will be made relative to a site specific datum. Elevation measurements will be made to the top of casing to the nearest 0.01 foot and the ground surface adjacent to the well to the nearest 0.1

foot. Preliminary measurements will also be made when necessary to assist in placement of downgradient wells. Survey work will be done in accordance with Section C.10 of Exhibit 3.

Sampling and Analysis

Soil

One (1) soil sample (or sediment sample depending on conditions) shall be collected from each of the two on-site storm drains (probable catch basins) and leaching pool if accessible and available (see Figure 3). The samples (total of three (3)) will be analyzed for HSL metals and organics using CLP.

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

Groundwater

Groundwater from the three wells identified in Table 2 will be analyzed for Hazardous Substance List (HSL) metals and organics, using the Contract Laboratory Protocol. Dedicated tubes, hoses, and line will be provided for development and sampling of each well. Bailers will be decontaminated as required in the QA/QC plan.

Air

Air monitoring, consisting of a perimeter survey with a photoionization detection (PID) instrument or flame ionization detector (FID), shall occur upon arrival at the site. A survey within the boundary of the site shall follow the perimeter survey. This air monitoring is separate from monitoring that is part of the health and safety plan. If a source of air contamination is identified, the air will be sampled using appropriate equipment to determine the nature and concentration of the contaminant. Upwind air samples will also be analyzed at the same time. Wind direction must be continuously monitored and documented during any sampling and analysis of air samples.

Table 3 summarizes the analysis to be performed at the U.S. Electroplating site. Type of sample, number of samples and analysis methods are included.

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

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

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

COST ESTIMATE

The estimated manhours required for the Phase II project are presented in Table 4 and the estimated project costs by tasks are presented in Table 5. (Completed by NYSDEC consultant).

HEALTH AND SAFETY PLAN

The Health and Safety Plan will be submitted by the consultant as a separate document. At this time, we anticipate Level D health and safety gear will be required during the field work. Appropriate precautions should be taken in sampling the catch basins and leaching pool. If, during the investigation, it is determined that the level of protection should be upgraded, the consultant shall be ready to employ the appropriate equipment and NYSDEC shall be immediately notified.

QUALITY ASSURANCE PLAN

The Quality Assurance Plan will be submitted by the consultant as a separate document.

TABLE 1
PHASE II WORK PLAN - TASK DESCRIPTION
U.S. ELECTROPLATING

Tasks		Description of Task
Task		
II-A	Conduct Records Search/Data Compilation	Review Phase I information. Update by contacting and visiting central and regional DEC offices.
II-B	Conduct Boring/Install Monitoring Wells	Install three wells. Three borings will be drilled to a depth of approximately 30 feet. Wells will be constructed of 2-inch PVC pipe. Borehole should be large enough to ensure placement of downhole materials with a tremie.
	Soil samples from borings	Soil samples collected at 5-foot intervals, during drilling and at changes in subsurface lithologies. Perform grain size analysis, Atterberg limits and permeability tests as specified in the text.
II-C	Perform Sampling and Analysis	
	Soil samples	Three (3) samples will be collected and analyzed for HSL metals and organics.
	Soil samples from test pits and auger holes.	Up to three (3) samples will be collected.
	Sediment samples from surface waters	No samples will be collected.
	Groundwater samples	Three groundwater samples will be collected and analyzed for HSL metals and organics.
	Surface water samples	No samples will be collected.
	Leachate samples	No samples will be collected.
	Air samples	Use a FID or PID to determine the presence of organics.
	Waste samples	No samples will be collected.

TABLE 1 (cont'd)
PHASE II WORK PLAN - TASK DESCRIPTION
U.S. ELECTROPLATING

Tasks	Description of Task
Task	
II-D Conduct Site Assessment	A site contamination assessment will be conducted to complete the final HRS and HRS documentation records.
II-E Report Preparation	Prepare final report containing significant Phase I information, additional field data, final HRS and HRS documentation records, and site assessments with recommendations for any future action at site, and in accordance with Article 49.
II-F Project Management	Project coordination, administration and reporting.

TABLE 2
PHASE II WORK PLAN - SAMPLING SUMMARY
U.S. ELECTROPLATING

Designation	Location Rationale	Aquifer Screened	Approx. Boring Depth (ft)	Length of Screen (ft)
Soil				
S-1	Catch basin			
S-2	Catch basin			
S-3	leaching pool			
Groundwater				
GW-1	Upgradient	Upper Glacial	30	10
GW-2	Downgradient	Upper Glacial	30	10
GW-3	Downgradient	Upper Glacial	30	10
Surface Water				
None				
Sediment				
None				
Leachate				
None				
Borings				
SS-1	If necessary			
SS-2	If necessary			
SS-3	If necessary			
Air				
Use a FID or PID to determine the presence of organics				

NOTE: Locations, aquifer screened, approximate boring depth, length of screen (ft) listed are based on existing data and are the basis of the cost estimate. These criteria may change based on the results of the geophysical surveys and/or field conditions.

TABLE 3
NYSDEC - CHEMICAL ANALYSES - U.S. ELECTROPLATING

Type of Sample	Type of Analyses(1) HSL(2) Metals	HSL(3) Volatiles	HSL(4) Semi-Volatiles	HSL(5) Pesticides/ PCBs	Matrix Spike/ Duplicate (6)
Groundwater(7)	4	4	4	4	1/1
Surface Water	---	---	---	---	---
Sediment	---	---	---	---	---
Soil	6	6	6	6	1/1
Leachate	---	---	---	---	---
Drums	---	---	---	---	---
Waste	---	---	---	---	---
Trip Blank	---	1	---	---	---
Field Blank	1	1	1	1	---

(1) Complete identification per NYSDEC Generic Work Plan, Section 3(b)(ii)(B). Field pH, conductivity and temperature measurements will be conducted on all water samples.
(2) HSL Metals - Preparation and analysis of the 15 Task 1 and 9 Task 2 inorganic compounds using the specified CLP methods.
(3) HSL Volatiles - Preparation and analysis using the CLP specified GC/MS method for HSL purgeable organics plus a library search for and the quantification of any additional non-HSL compounds (the CLP requires the library search only for the 10 non-HSL compounds of largest apparent concentration).
(4) HSL Semi-Volatiles - Preparation and Analysis using the CLP specified GC/MS method for HSL Extractable Base/Neutral and Acid Organic compounds plus a library search for and the quantification of any additional non-HSL compounds (the CLP requires the library search only for the 20 non-HSL compounds of largest apparent concentration).
(5) HSL Pesticides/PCB's - Preparation and pre-extraction of the HSL organochloride pesticides and polychlorinated biphenyls using the CLP specified GC-ECD method.
(6) Superfund and Contract Laboratory Protocol, January 1985, requires at least one spiked sample analysis and one duplicate sample analysis from each group of samples of a similar matrix type for each case of samples or for each 20 samples received, whichever is more frequent.

(7) The reason for one (1) additional groundwater sample is that a duplicate groundwater sample must be obtained from a monitoring well chosen at random (or some other medium if wells are not available). That duplicate sample must not be identified as a duplicate to the laboratory, but must be assigned an identifier similar to other groundwater samples. The Bureau requires the blind analysis of a duplicate sample for each site by the laboratory to confirm the integrity of all sampling and analytical activities.

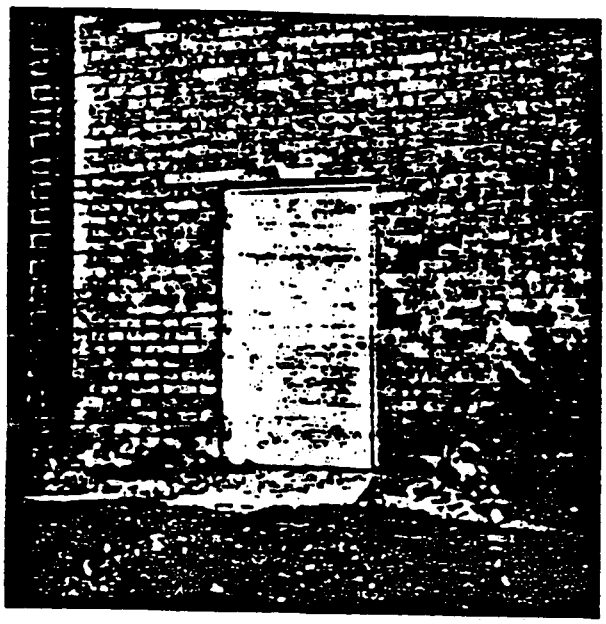
--- Designates that no samples are to be analyzed.

NOTE: BASE MAP FROM USGS, AMITYVILLE, NY QUAD, 1979

SITE LOCATION MAP
US ELECTROPLATING CORP.

FIGURE 1

Electroplating 100 Field St



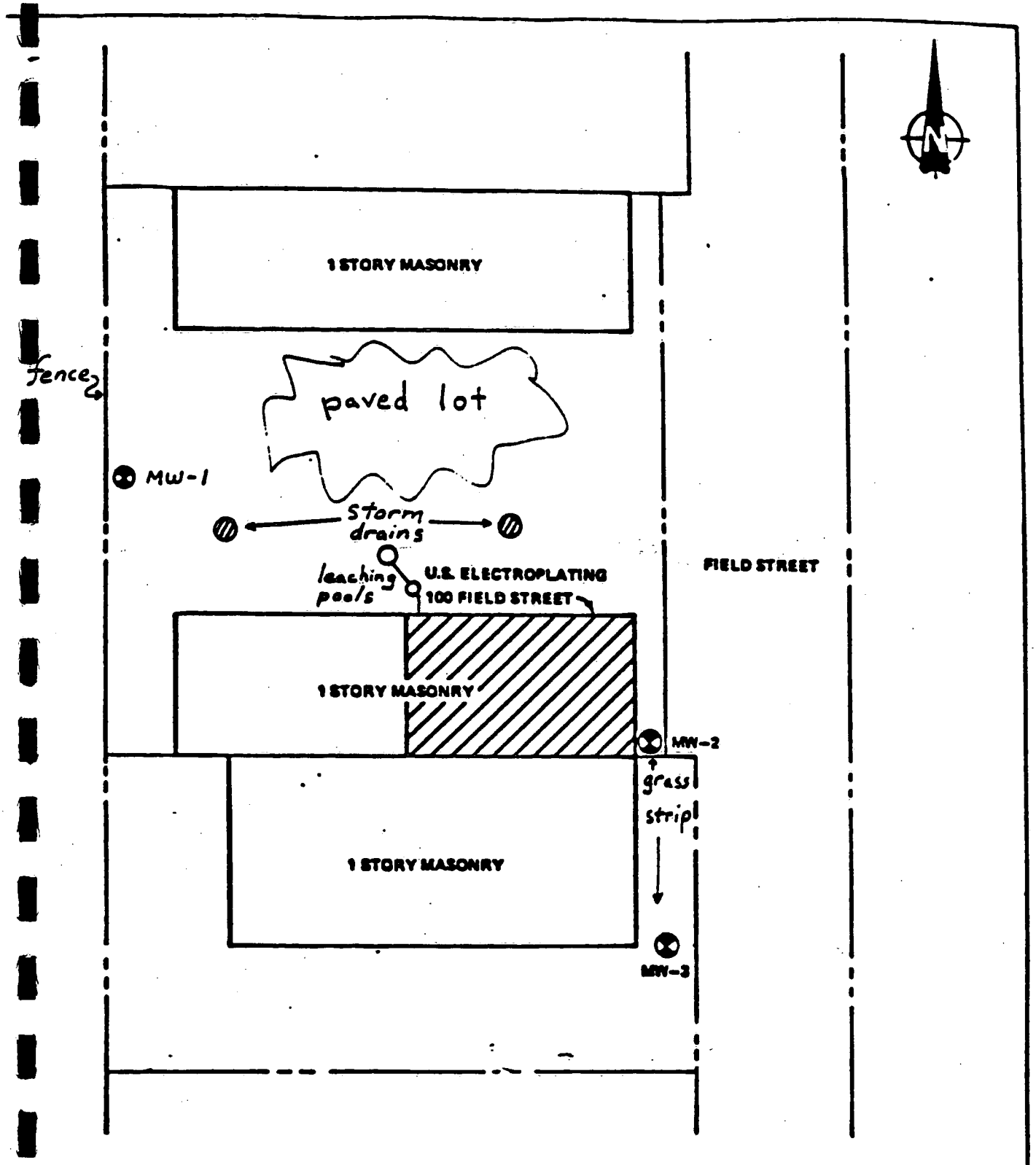
Southeast corner of 100 Field Street
(location of buried tanks no longer used)

Looking east from north side of building
parking area. (Note overhead lines)

Northeast corner of 100 Field Street
(Note berm at entrance)

North side of 100 Field Street
(Note storm sewer)

Figure 2



LOCATION PLAN
FOR PHASE II INVESTIGATION
U.S. ELECTRO PLATING CORP.

LEGEND

PROPOSED MONITORING WELL

NOTE:

DRAWING ADAPTED FROM FORD, BECON AND DAVIS, 1971

FIGURE 3

LeRoy
Callender
PC

Site Reconnaissance Report
and
Workplan Addendum
U.S. Electroplating
DEC ID# 152027
Suffolk County, New York

Submitted to:

Mr. Lawrence J. Alden, Assistant Sanitary Engineer
Eastern Investigation Section
Bureau of Hazardous Site Control
Division of Hazardous Work Remediation
NYSDEC
50 Wolf Road
Albany, NY 12233

Submitted by:

LeRoy Callender, P.C.
236 West 26th Street
New York, NY 10001

September 12, 1988

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2. Site Reconnaissance Report	1
2.1 Site Access	1
2.2 Portable Water Source	2
2.3 Placement of Drilling Cuttings	2
3. Field Investigation	2
3.1 Test Boring and Well Installation	2
3.2 Sampling and Analysis	4

Attachment 1: Geophysical Study

Attachment 2: Health and Safety Plan

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Work Plan Summary Table 1: Changes in Well Locations	6
Work Plan Summary Table 2: Changes in Soil Sampling	7

1. General Introduction

U.S. Electroplating is currently undergoing a Phase II Site Investigation by the NYSDEC. The purpose behind this investigation is to assess whether contamination has been released from the site, determine whether a significant threat to human health or the environment exists, to prepare final HRS scores and make recommendations for possible future actions at the site.

The original workplan outlines tasks that will be performed as a part of the site assessment and how they shall be implemented. The workplan first calls for a Site Reconnaissance and Geophysical Survey to be performed, in order to allow the investigative team a chance to address problems that there may be in the existing workplan, in order to most effectively accomplish its goals.

Following is a report of the findings of the Site Reconnaissance and Geophysical Survey (see Attachment 1) including a summary and explanation of recommended changes to the workplan. Additionally, a health and safety plan has been included that has been adapted to meet site specific considerations to U.S. Electroplating.

2. Site Reconnaissance Report

The Site Reconnaissance was performed on August 8, 1988 at 10:30 a.m. Kathleen Murray and Hallie Cooke of LeRoy Callender, PC conducted the site investigation. Also present was Peter Breen of Roux Associates to perform the Geophysical Survey. All three were escorted around the site by Larry Donnelly of Donnelly Engineering, representing U.S. Electroplating. Questions regarding the Site Reconnaissance should be directed to Kathleen Murray, LeRoy Callender, PC, 236 West 26th Street, New York, NY 10001 (212) 989-2900.

2.1 Site Access

Permission for access to 98 Field Street has been supplied by Anthony Sorresso, President, MFDL Realty Corp., 444 Walker Street, North Babylon, NY 11703.

Problems gaining permission for access to the U.S. Electroplating site have already delayed the project by more than two weeks. As previously noted, site access was obtained to perform the Site Reconnaissance in the presence of Larry Donnelly of Donnelly Engineering, U.S. Electroplating's engineer. Similar problems and delays are to be anticipated throughout the remainder of the project.

U.S. Electroplating is located on fairly level ground in an industrial park in West Babylon, NY. The site is

partially enclosed by fencing and buildings. The grass strip to the east of the facility, under which the three wastewater tanks are located, is located outside this enclosed region. The open parking area inside the fence is crisscrossed by overhead wires, which have influenced the placement of MW-1. Work on MW-2 and MW-3 will be approached from Field Street.

2.2 Potable Water Source

Due to the aforementioned lack of cooperation displayed by U.S. Electroplating, LeRoy Callender has decided to utilize a municipal water source.

Water for decontamination may be derived from a fire hydrant located on Field Street. The third fire hydrant north of Edison Avenue will be available at a 6 month rental rate of $61.68 from the Suffolk County Water Supply Co. Necessary hydrant attachments will be provided by the drillers, Marine Pollution Control, who will also be responsible for obtaining the permit.

Contact: Arlene Calabria
Suffolk County Water Supply Company
179 Little East Neck Road
Babylon, NY 11702

John Goff
Marine Pollution Control
375 Dunton Avenue
East Patchogue, NY 11772
(516) 654-4900

2.3 Placement of Drilling Cuttings

Drilling cuttings and water from monitoring wells will be placed in 55 gallon steel drums with ring and bolt on site. Drums shall be USDOT approved type 17-H for soil and 170-E for water. The driller will supply drums and store cuttings.

3. Field Investigation

3.1 Test Boring and Well Installation

As stated in the workplan, three wells are to be installed to provide data pertinent to both water chemistry and characterization of the stratigraphic and groundwater regime at the site.

Alternate locations are recommended for all three wells (see Figure 1). A new location for Monitoring Well 1 (MW-1)

is suggested in the geophysical study due to high magnotometer readings in the original location.

According to the workplan, the direction of groundwater flow is to the southeast. Based on this, it was determined that MW-2 was not placed so as to adequately assess contamination that may have originated from the three wastewater storage tanks. Therefore, it is proposed that Monitoring Well 2 (MW-2) be moved slightly north and east of its original location. This placement of the well to the southeast of the three leaching underground tanks (see Figure 2) will allow a more accurate assessment of contamination from this source.

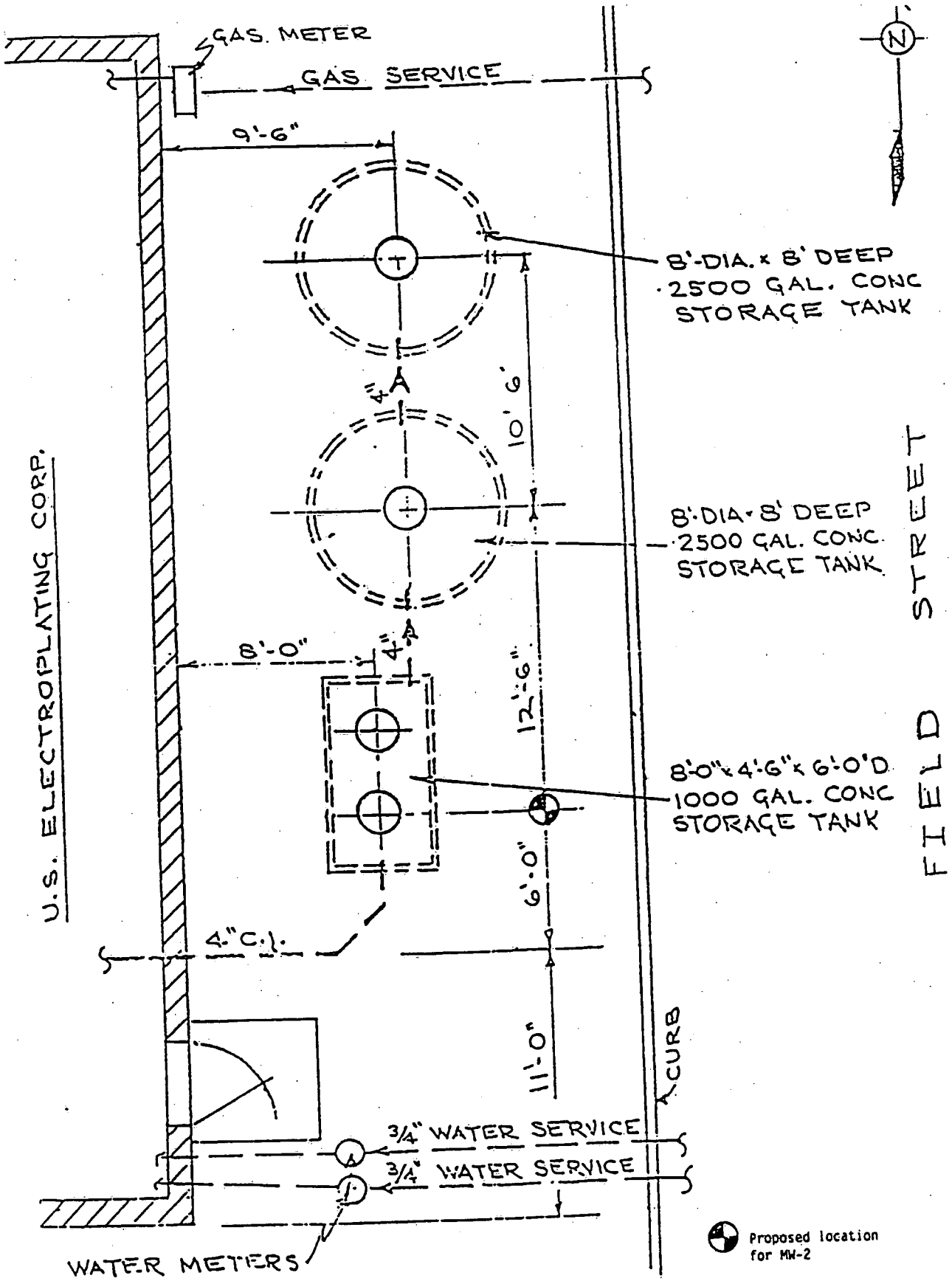
The original placement of Monitoring Well 3 as depicted in the workplan is not feasible due to the presence of overhead wires and cables. In the Geophysical Study, Roux Associates recommends alternate placement of MW-3 to the south and west of its original location as shown in Fig. 1.

Workplan Summary Table 1 summarizes changes to be made in well locations.

3.2 Sampling and Analysis

One soil sample will be collected from each of the two on-site storm drains and leaching pit, if conditions permit.

As required in the generic workplan, a background soil sample will be taken during the drilling of MW-1 at a depth of 8-10'. One soil sample will be collected from the borings of MW-2 and MW-3, respectively. The depth of samples will be determined by the on-site geologist based on individual soil characteristics. A total of three samples may be taken dur-ing drilling operations. (See Workplan Summary Table 2.)



EFFLUENT STORAGE
SCALE: 1" = 6'-0"

FIGURE 2

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TABLE 1

WORKPLAN SUMMARY

Changes in Well Locations:

Well Number	Well Type	Matrix	Analytical Parameter	New Location
MW-1	Upgradient (Background)	Ground-water	HSL Organics & HSL Metals	8' east and 45' south of original location of parking area of 100 Field St.
MW-2	Downgradient	"	"	Slightly east of 3 underground concrete storage tanks in front of 100 Field Street.
MW-3	Downgradient	"	"	24' west and 15' south of southeast corner of 98 Field Street.

TABLE 2

WORKPLAN SUMMARY

Changes in Soil Sampling:

Number of Samples	Matrix	Analytical Parameter	Depth	Location
1	Soil	HSL Organics & HSL Metals	8-10'	Background sample to be taken from MW-1
2	"	"	"	Samples may be collected from MW-2 and MW-3 at the consultant's discretion
3	"	"	"	Samples to be taken from sediment in the storm drains and leaching pit

NOTES:

(*) Depth to be determined at the discretion of the consultant.

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ATTACHMENT 1

GEOPHYSICAL STUDY

CONSULTING GROUND-WATER
GEOLOGISTS AND ENGINEERS
ROUX ASSOCIATES INC

ROUX

THE HUNTINGTON ATRIUM
775 PARK AVENUE
SUITE 255
HUNTINGTON, NEW YORK 11743 516 673-7200 FAX # 516 673-7216

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LEROY CALLENDER/P.C.

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1.
2.
3.
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5. 36-274

August 12, 1988

Mr. Sirous Nabavi, PE
LeRoy Callender PC
236 West 26th Street
New York, NY 10001

Re: NYSDEC Phase II Investigations
Site #152027 Magnetometer Survey

Dear Mr. Nabavi:

A magnetometer survey was conducted SITE NO. None U.S. Electroplating site on August 9, 1988 at the proposed well locations, shown on the attached figures, to detect buried ferromagnetic objects which might be encountered during drilling activities.

The Schonstedt Model GA-52B flux-gate magnetometer which was used provides a continuous audio signal which increases from the idling frequency of 40 H_z as surface and/or subsurface ferromagnetic material is approached.

The well locations are designated in the Phase II Work Plan furnished by the NYSDEC. At each proposed well location, an area of approximately 300 square feet was screened in detail with the magnetometer. If no detections of ferromagnetic material were made within the survey area, the location center was marked with red spray paint indicating the proposed well number. If detections were made, the surrounding area was screened until a clear location was found. Before leaving the location, two distances from the location center to permanent site reference points were made and recorded to the nearest foot in case the paint indicator becomes obliterated.

The proposed well locations shown on Figure 1 are individually shown in detail, with respect to site reference points, on Figures 2 and 3.

In addition to the NYSDEC proposed well locations, alternates were chosen during the site visit by Mr. Lawrence Donnelly, P.E. and Ms. Kathleen Murray representing LeRoy Callender. A third possible location for MW-1 was to have been north of 100 field street in a grass strip as shown on Figure 1. However, it was not possible to find an area free of magnetometer response in that location.

Generally, high magnetometer responses along Field Street were obtained. Very high response was obtained for the area just north of the location for MW-2 shown on Figure 3. Although the MW-2 location was not free of response, it had the least in the vicinity. Any drilling along Field Street should proceed with great caution and only after checking with the local utilities.

The location for MW-3 shown on Figure 1 was moved into the paved area to the south of the buildings due to overhead power lines. The Figure 3 site represents the best location found during the magnetometer search although a completely response free area was not found. Numerous sources of interference in the vicinity include buildings, pavement reinforcement, and underground pipelines. Locations of pipelines in the area should be obtained prior to drilling.

The work plan supplied to Roux Associates by NYSDEC showed locations for three monitoring wells. A figure brought to the site during the visit by Ms. Murray showed a forth well, MW-4, indicated on Figure 1. Due to numerous sources of magnetometer interference a location for MW-4 was not determined.

Please call if you have questions regarding the survey.

Sincerely,

Peter C. Breen

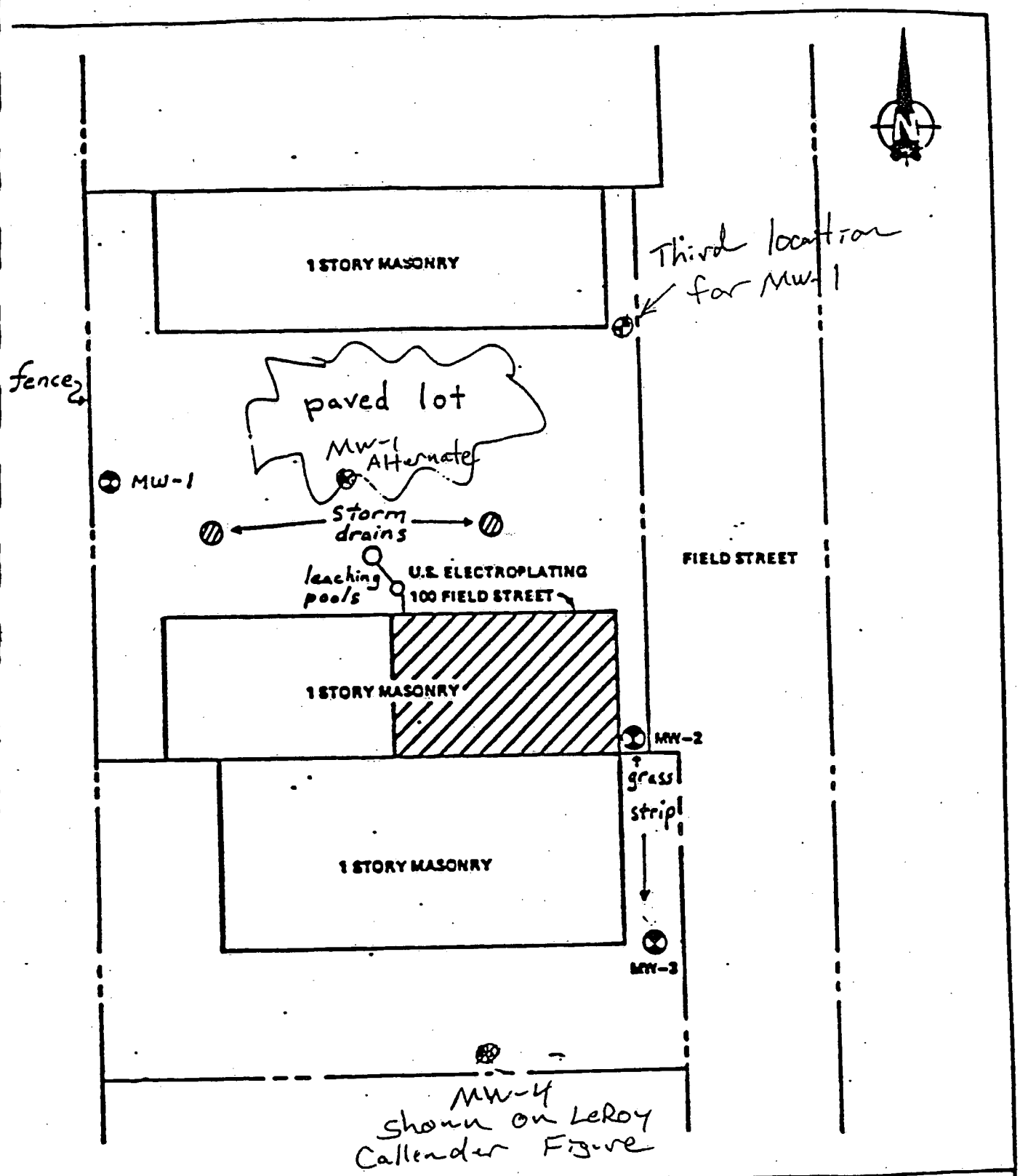
Peter C. Breen
Hydrogeologist

Peter C. Breen

For Paul H. Roux
President

/g

Encl.
cc: Gibbs & Hill



LOCATION PLAN
FOR PHASE II INVESTIGATION
U.S. ELECTRO PLATING CORP.

EGEND

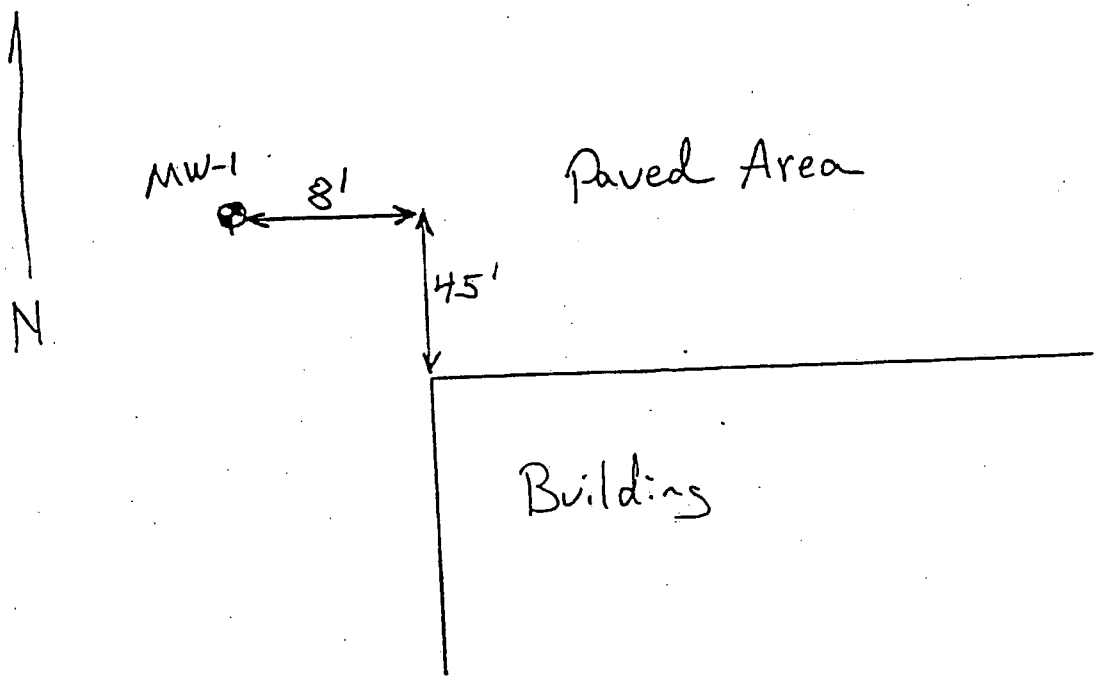
PROPOSED MONITORING WELL

OTE:

RAWING ADAPTED FROM FORD, ACON AND DAVIS, 1971

Figure 1

Location of MW-1
-NTS-



Location of MW-1A

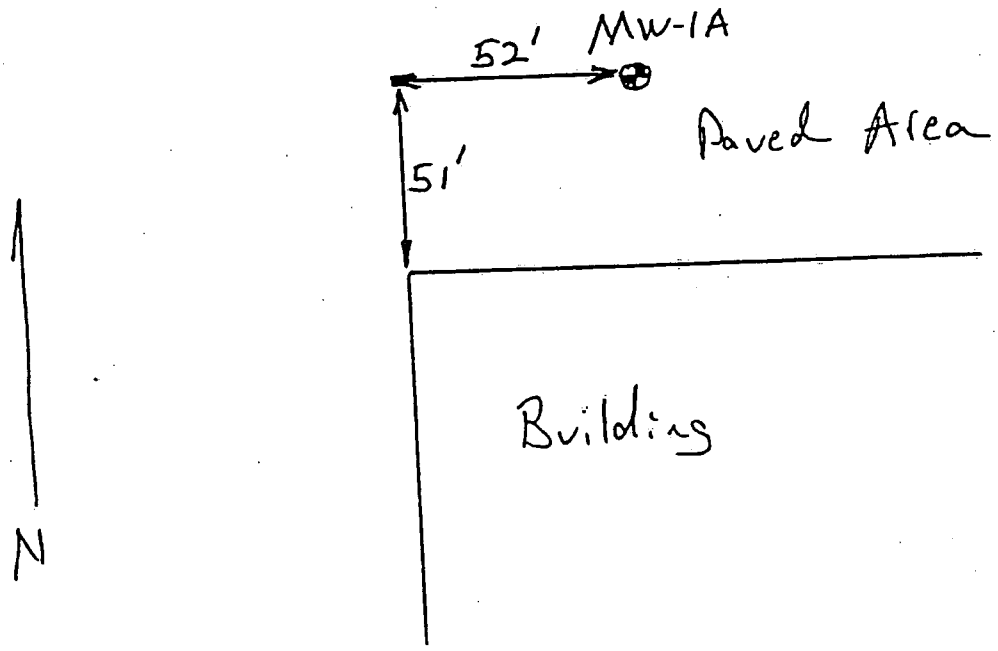
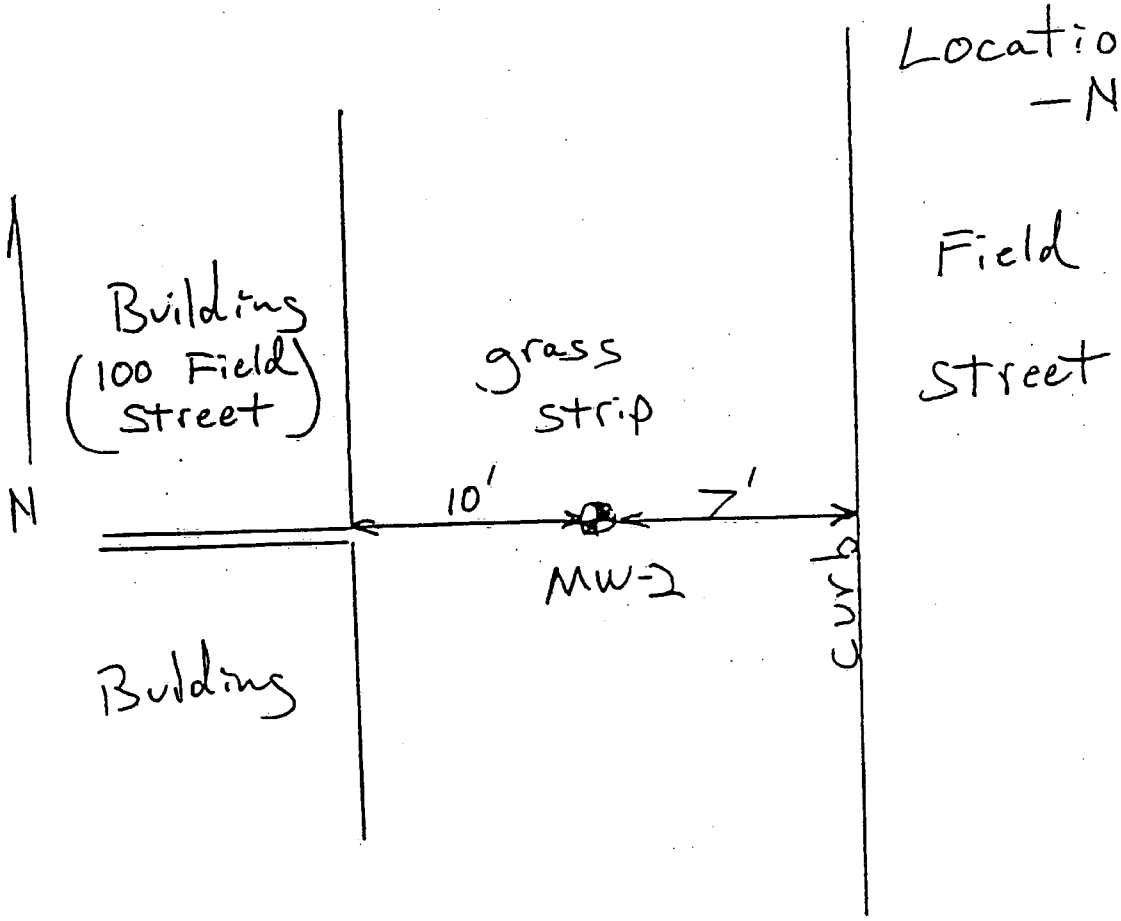


Figure 2

US Electroplating

Location of MW-2
-NTS-



Location of MW-3
-NTS-

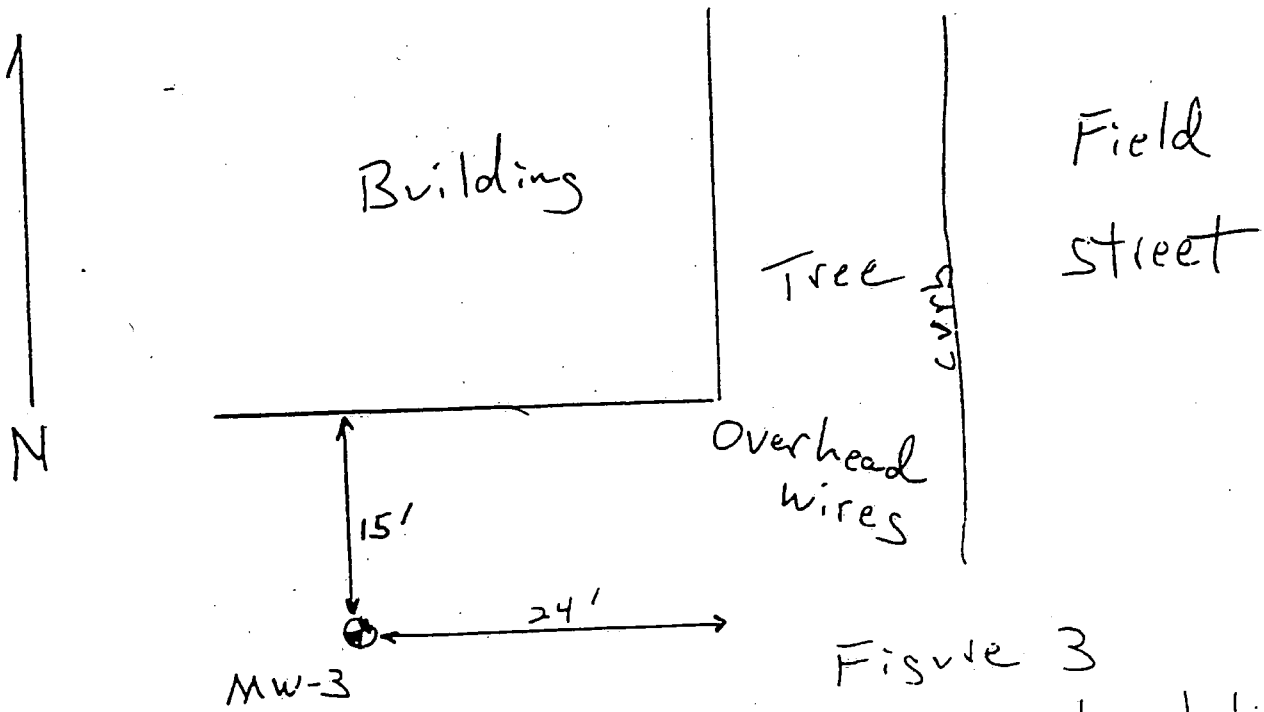


Figure 3
US Electroplating

ATTACHMENT 2

HEALTH AND SAFETY PLAN

LeRoy
Callender
PC

SITE SAFETY PLAN

A. GENERAL INFORMATION

SITE: U.S. Electroplating N.Y. I.D. No. 152027

LOCATION: West Babylon Suffolk County CONTACT: Robert Birnbaum

PLAN PREPARED BY: Kathleen Murray DATE: August 31, 1988

APPROVED BY:

BUREAU SAFETY OFFICER: _____ DATE: _____

SECTION CHIEF: _____ DATE: _____

WORK SCOPE: Phase II Site Investigation

PROPOSED DATE OF INVESTIGATION: 26 September 1988

BACKGROUND REVIEW: Complete: ____ Preliminary: X

OVERALL HAZARD: Serious: ____ Moderate: ____

Low: X Unknown: ____

B. SITE/WASTE CHARACTERISTICS

WASTE TYPE(S): Liquid X Solid ____ Sludge ____ Gas ____

CHARACTERISTIC(S): Corrosive X Ignitable ____ Radioactive ____

Volatile X Toxic ____ Reactive ____

Unknown ____ Other X (Metals)

FACILITY FUNCTION: U.S. Electroplating is an anodizing and electroplating facility.

Principal Disposal Method (type and location): Past disposal of wastewaters was to three concrete underground storage tanks and potentially septic tank and leaching pit. U.S. Electroplating is currently disposing of waste in 55 gallon polypropylene drums.

Unusual Features (dike integrity, power lines, terrain, etc.) Power lines crisscross the parking area in the vicinity of the storm drains, leaching pit, septic tank and MW-1.

Status: (active, inactive, unknown) Active

LeRoy
Callender
PC

History: (Worker or non-worker injury; complaints from public; previous agency action): Suffolk County Department of Health Services has collected quarterly samples for Total Metals from storage tanks, leaching pit and storm drains and sited U.S. Electroplating for violations of the NYS Environmental Conservation Law and the Suffolk County Sanitary Code.

HAZARDOUS/TOXIC MATERIAL (known or suspected, contaminted media or in storage container, etc.)
There is suspected contamination in the soil and groundwater. Past analyses of waste stored in underground concrete storage tanks confirmed the presence of Hazardous Substance List (HSL) metals. The presence of HSL organics from process solutions is also suspected.

HAZARD ASSESSMENT (toxic and pharmacologic effects, reactivity, stability, flammabiliy, and operational concerns, sampling, decontaminating, etc.)
The potential for respiratory and dermal exposures exist due to the suspected presence of the aforementioned contaminants in the soil and groundwater.

C. SITE SAFETY WORK PLAN

PERIMETER ESTABLISHMENT: Map/Sketch attached See Figure 1
Site secured? Partially

Perimeter Identified? Yes Zone(s) of Contamination Identified? No

PROPOSED ON-SITE ACTIVITIES: Proposed on-site activities include advancing and installing three groundwater monitoring wells, collecting up to three soil samples during the drilling, collecting three samples from the storm drains, septic tank and leaching pit and the ultimate collection and analyses of groundwater samples from the three monitoring wells.

LeRoy
Callender
PC

SITE SAFETY PLAN

A. GENERAL INFORMATION

SITE: U.S. Electroplating N.Y. I.D. No. 152027

LOCATION: West Babylon Suffolk County CONTACT: Robert Birnbaum

PLAN PREPARED BY: Kathleen Murray DATE: August 31, 1988

APPROVED BY:

BUREAU SAFETY OFFICER: _____ DATE: _____

SECTION CHIEF: _____ DATE: _____

WORK SCOPE: Phase II Site Investigation

PROPOSED DATE OF INVESTIGATION: 26 September 1988

BACKGROUND REVIEW: Complete: ____ Preliminary: X

OVERALL HAZARD: Serious: ____ Moderate: ____

Low: X Unknown: ____

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Volatile X Toxic ____ Reactive ____

Unknown ____ Other X (Metals)

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Unusual Features (dike integrity, power lines, terrain, etc.) Power lines crisscross the parking area in the vicinity of the storm drains, leaching pit, septic tank and MW-1.

Status: (active, inactive, unknown) Active

LeRoy
Callender
PC

RECOMMENEDED LEVEL OF PROTECTION: Modified Level D

*Modifications: Prior to leaving the site and/or eating, hands and face should be carefully washed.

Monitoring Equipment and Materials: HNu Photoanalyzer

DECONTAMINATION AND DISPOSAL:

Decontamination Procedure: (D) level to be utilized

_____ Level A - Segretated equipment drop, boot cover and glove wash, boot cover and glove rinse, tape removal, boot cover removal, outer glove removal, suit/safety boot wash, suit safety boot rinse, (Tank Change), safety boot removal, suit and hard hat removal, inner glove wash, inner glove removal, inner clothig removal, field wash, redress.

_____ Level B - Segretated equipment drop, boot cover and glove wash, boot cover and glove rinse, tape removal, outer glove removal, suit/safety boot wash, suit/SCBA/boot/glove/ rise, (Tank Change) safety boot removal, (splash suit removal) SCBA backpack removal, inner glove wash, inner glove rinse, facepiece removal, inner glove removal, inner clothing removal, field wash, redress.

_____ Level C - Segregated equipment drop, boot cover and glove wash, boot cover and glove rinse, tape removal, boot cover removal, outer glove removal, suit/safety boot rinse (Canister or Mask Change), safety boot removal, splash suit removal, inner glove wash, inner glove rinse, facepiece removal, inner glove removal, inner clothing removal, field wash, redress.

x Level D - Segregated equipment drop, boot and glove wash, boot and glove rinse.*

x *Modifications (specify) Prior to leaving site and/or eating, hands and face should be carefully washed.

* If modified in the field, be sure to attach statement to file copy upon return to office.

LeRoy
Callender
PC

D. PERSONNEL & RESPONSIBILITIES

D.E.C.

1. Representatives to be determined later.
2.
3.
4.
5.
6.
7.
8.

OTHER

1. Kathleen Murray, LeRoy Callender, PC - Project Manager
2. Michael Zachara, LeRoy Callender, PC - Geologist
3. Hallie Cooke, LeRoy Callender, PC - Engineer/Environmental
4.
5.

LeRoy
Callender
PC

E. EMERGENCY PLANNING

HOSPITAL: Brunswick Hospital Service (516) 789-7000

AMBULANCE: PRN Ambulance (Babylon) (516) 422-7348

POLICE: (516) 957-4400

FIRE: (516) 226-1212

POISON CONTROL CENTER: Nassau County Medical Center (516) 542-2323

RADIO: N/A

TELEPHONE: Pay telephone located at convenience store at south end of Field Street

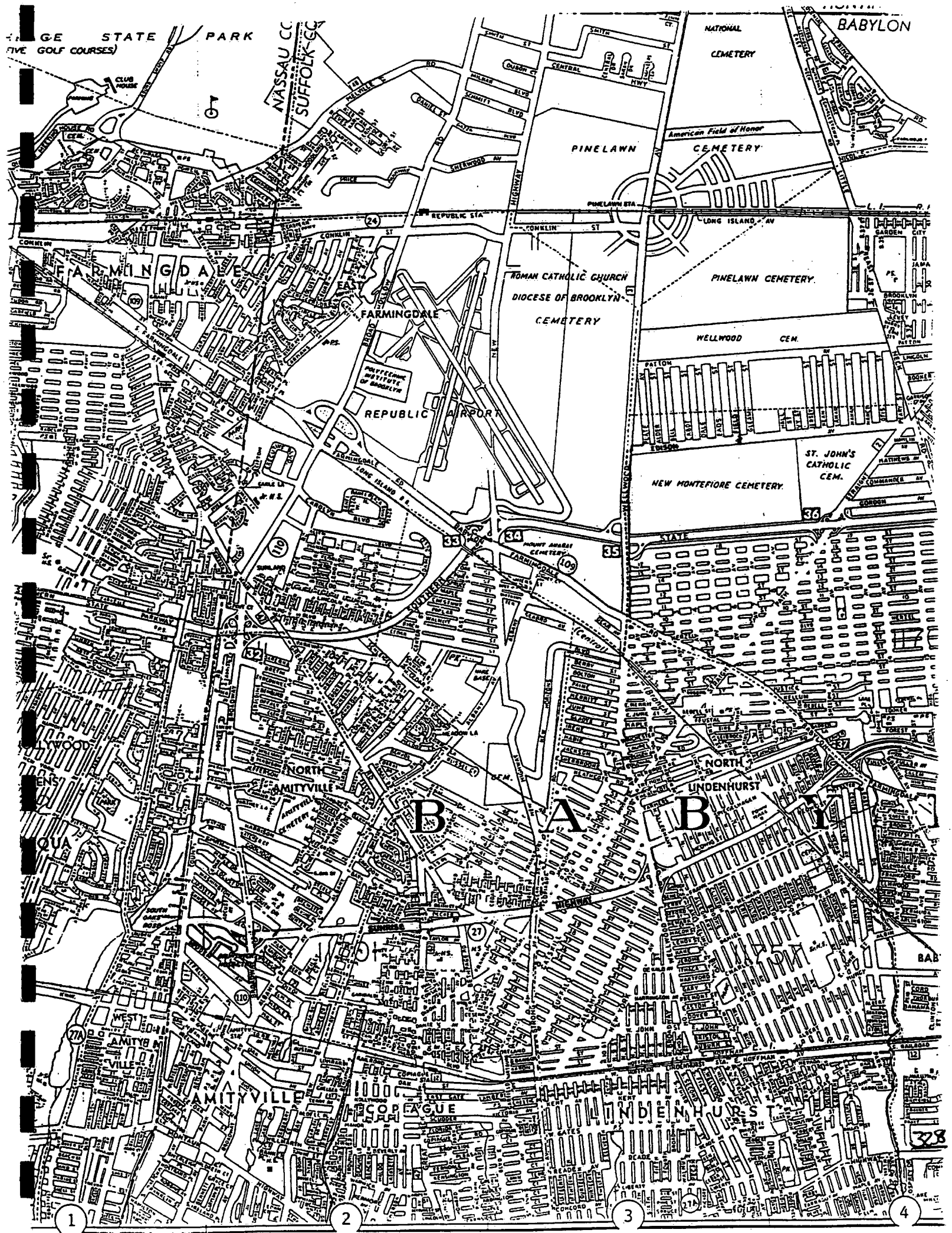
WATER SUPPLY: Suffolk County Water Supply Co. (516) 669-1545

D.E.C. REGIONAL CONTACT: Larry Alden (518) 457-0639

ROUTE TO HOSPITAL (Attach Map)

Head south on Field Street to Edison Street. Take a right on Edison Street and follow the road to the end. Take a left onto Wellwood Avenue and follow for a couple miles. Get onto Sunrise Highway East and take the Broadway exit headed south. Brunswick Hospital will be on your right. Take your first right onto Louden Avenue and an entrance should be on your right.

	Phone #
D.E.C. OFFICE	(518) 457-0740
BC: Charles Goddard	(518) 457-0740
BSO: Alan G. Woodard	(518) 457-0844
SC: Walter Demick	(518) 457-9538
SC: Marsden Chen	(518) 457-0639
SC: Roberto Olazagasti	(518) 457-0747
SC: John Rankin	(518) 457-0927


STATE PARK
NASSAU CO
SUFFOLK CO
CLUB HOUSE
NATIONAL CEMETERY
BABYLON
American Field of Honor
CEMETERY
PINELAWN
PINELAWN STA
REPUBLIC STA
LONG ISLAND AV
CONKLIN ST
FARMINGDALE
EAST FARMINGDALE
ROMAN CATHOLIC CHURCH
DIOCESE OF BROOKLYN
CEMETERY
PINELAWN CEMETERY
WELLWOOD CEM.
POLYTECHNIC INSTITUTE OF BROOKLYN
REPUBLIC AIRPORT
ST. JOHN'S CATHOLIC CEM.
NEW MONTEFIORE CEMETERY
MOUNT ANGEL CEMETERY
NORTH AMITYVILLE
NORTH UNDENHURST
B A B Y L O N
WEST AMITYVILLE
AMITYVILLE
COPIAGUE
UNDENHURST
328
1
2
3
4

APPENDIX B

Geophysical Survey

CONSULTING GROUND-WATER
GEOLOGISTS AND ENGINEERS
ROUX ASSOCIATES INC

ROUX

THE HUNTINGTON ATRIUM
775 PARK AVENUE
SUITE 255
HUNTINGTON, NEW YORK 11743 516 673-7200 FAX # 516 673-7216

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LEROY CALLENDER/P.C.

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3.	
4.	
5.	36-274

SITE NO.

August 12, 1988

Mr. Sirous Nabavi, PE
LeRoy Callender PC
236 West 26th Street
New York, NY 10001

Re: NYSDEC Phase II Investigations
Site #152027 Magnetometer Survey

Dear Mr. Nabavi:

A magnetometer survey was conducted at the proposed well locations, shown on the attached figures, to detect buried ferromagnetic objects which might be encountered during drilling activities.

The Schonstedt Model GA-52B flux-gate magnetometer which was used provides a continuous audio signal which increases from the idling frequency of 40 H_z as surface and/or subsurface ferromagnetic material is approached.

The well locations are designated in the Phase II Work Plan furnished by the NYSDEC. At each proposed well location, an area of approximately 300 square feet was screened in detail with the magnetometer. If no detections of ferromagnetic material were made within the survey area, the location center was marked with red spray paint indicating the proposed well number. If detections were made, the surrounding area was screened until a clear location was found. Before leaving the location, two distances from the location center to permanent site reference points were made and recorded to the nearest foot in case the paint indicator becomes obliterated.

The proposed well locations shown on Figure 1 are individually shown in detail, with respect to site reference points, on Figures 2 and 3.

In addition to the NYSDEC proposed well locations, alternates were chosen during the site visit by Mr. Lawrence Donnelly, P.E. and Ms. Kathleen Murray representing LeRoy Callender. A third possible location for MW-1 was to have been north of 100 field street in a grass strip as shown on Figure 1. However, it was not possible to find an area free of magnetometer response in that location.

Generally, high magnetometer responses along Field Street were obtained. Very high response was obtained for the area just north of the location for MW-2 shown on Figure 3. Although the MW-2 location was not free of response, it had the least in the vicinity. Any drilling along Field Street should proceed with great caution and only after checking with the local utilities.

The location for MW-3 shown on Figure 1 was moved into the paved area to the south of the buildings due to overhead power lines. The Figure 3 site represents the best location found during the magnetometer search although a completely response free area was not found. Numerous sources of interference in the vicinity include buildings, pavement reinforcement, and underground pipelines. Locations of pipelines in the area should be obtained prior to drilling.

The work plan supplied to Roux Associates by NYSDEC showed locations for three monitoring wells. A figure brought to the site during the visit by Ms. Murray showed a forth well, MW-4, indicated on Figure 1. Due to numerous sources of magnetometer interference a location for MW-4 was not determined.

Please call if you have questions regarding the survey.

Sincerely,

Peter C. Breen

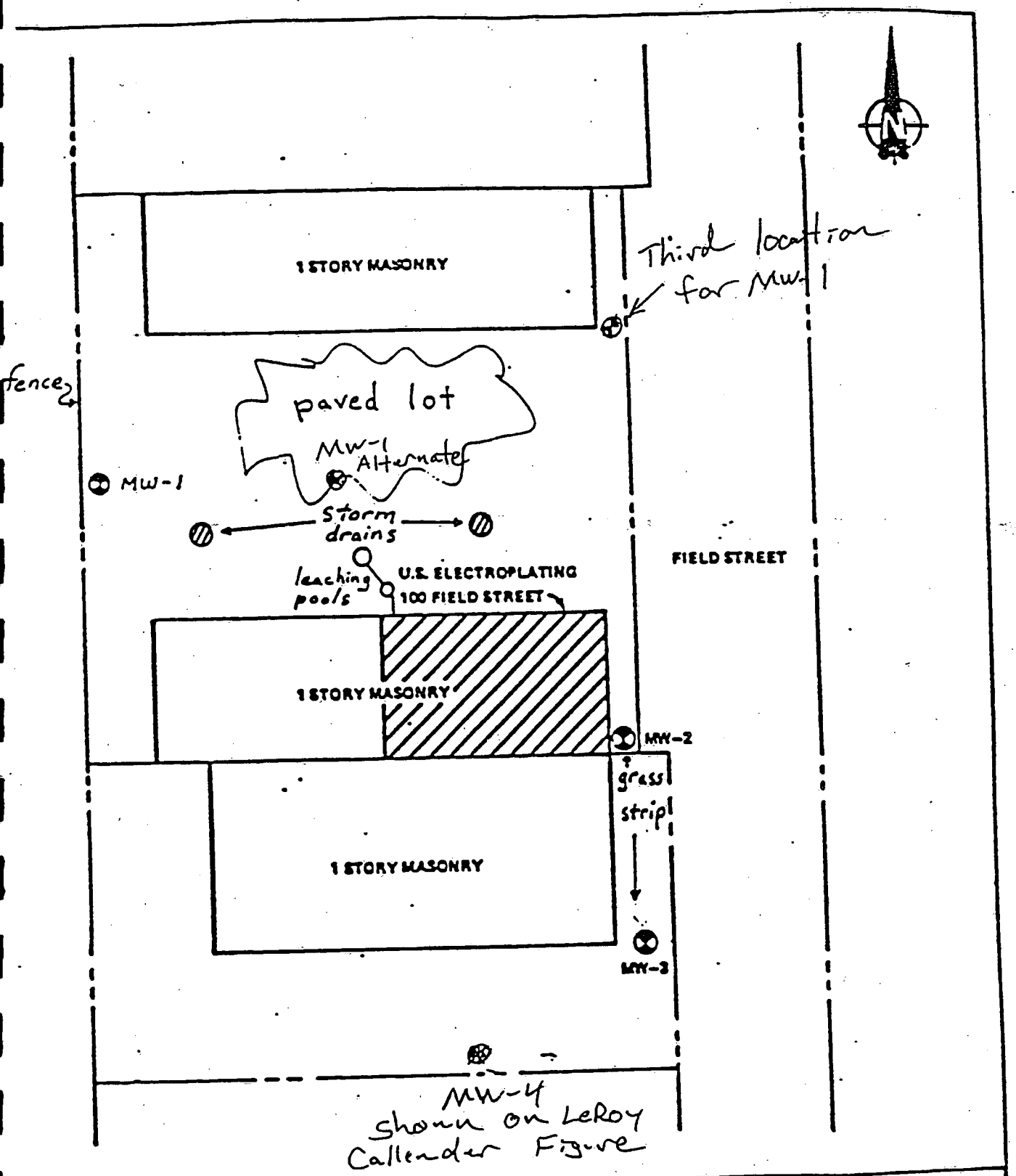
Peter C. Breen
Hydrogeologist

Peter C. Breen

For Paul H. Roux
President

/g

Encl.
cc: Gibbs & Hill



LOCATION PLAN
FOR PHASE II INVESTIGATION
U.S. ELECTRO PLATING CORP.

EGEND

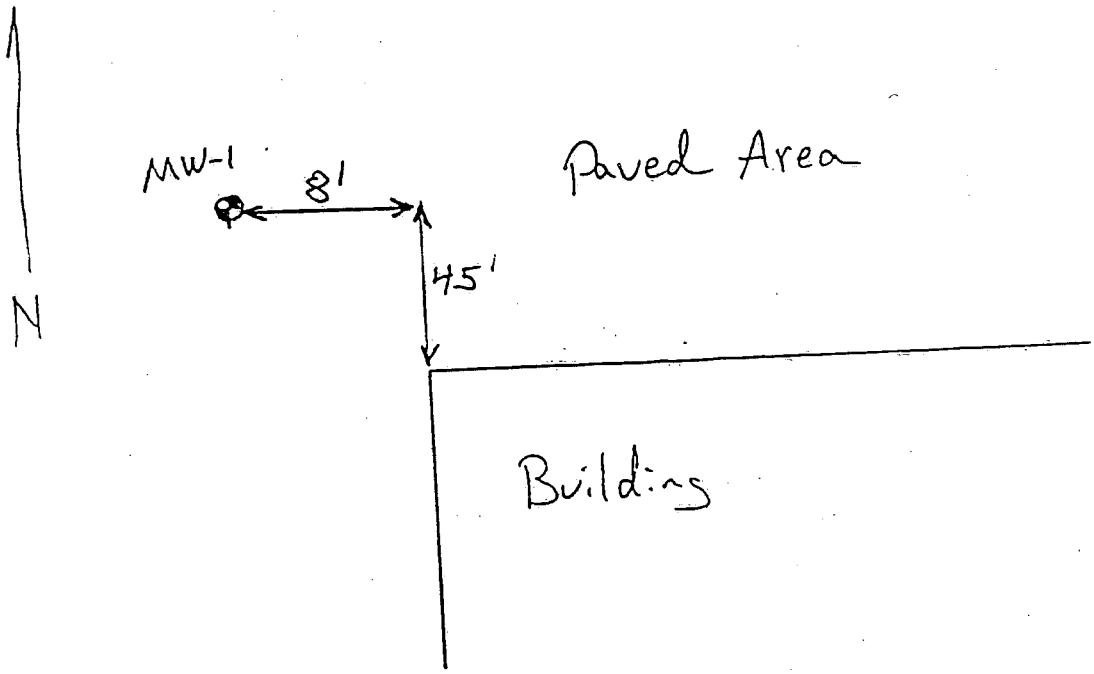
PROPOSED MONITORING WELL

OTE:

RAWING ADAPTED FROM FORD, ACON AND DAVIS, 1971

Figure 1

Location of MW-1
-NTS-



Location of MW-1A

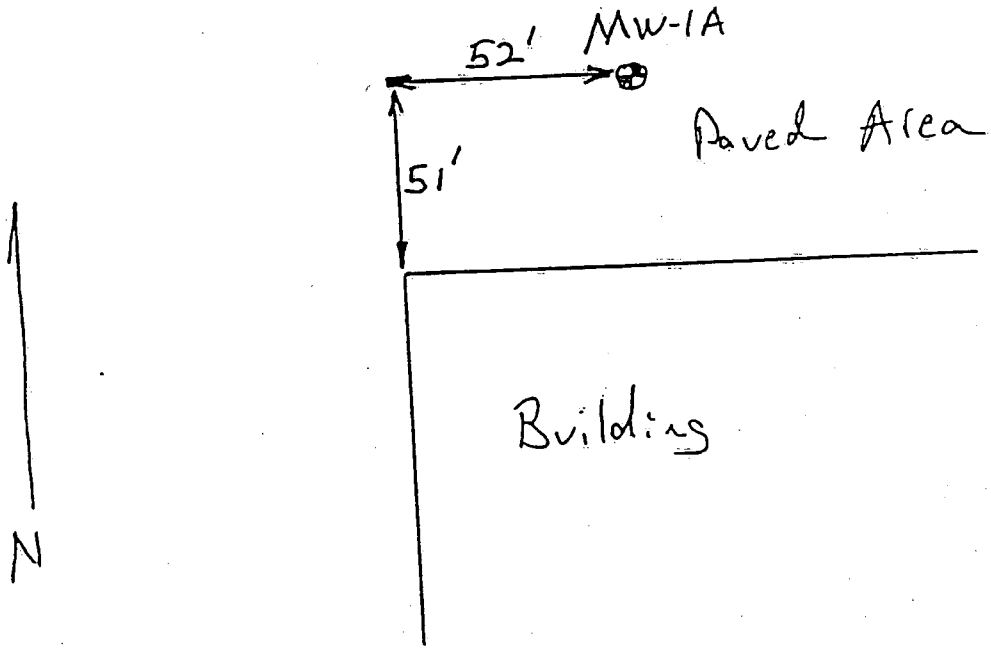
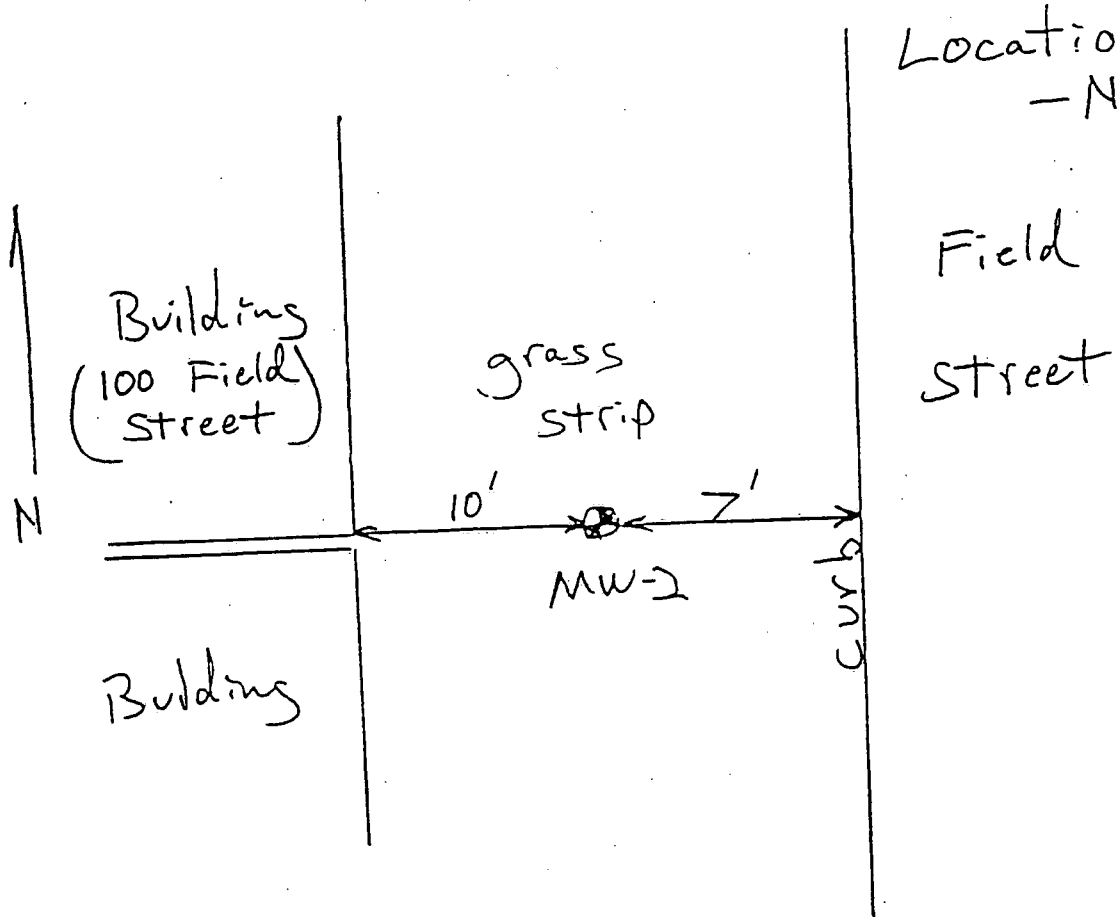
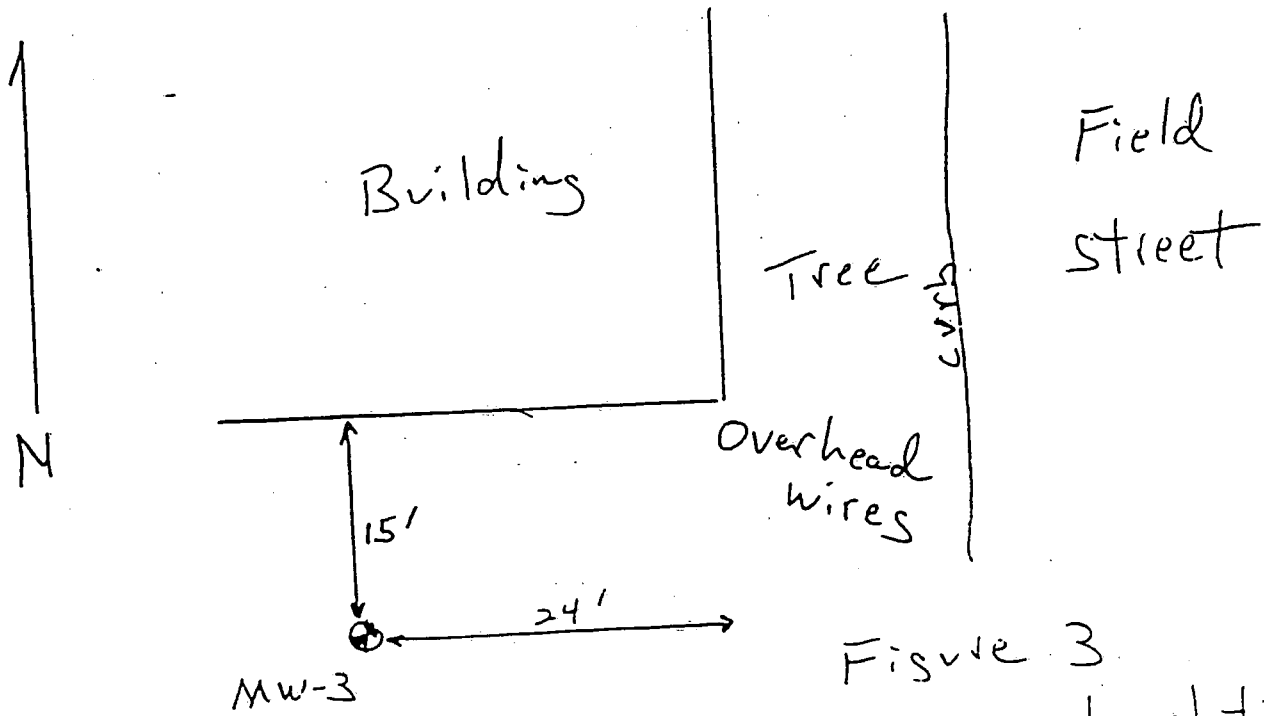


Figure 2
US Electroplating

Location of MW-2
-NTS-



Location of MW-3
-NTS-



Fisvre 3

US Electroplating

APPENDIX C

Well Logs

LeRoy Callender PC

236 West 26 Street
New York, NY 10001

DRILLERS LOG

I.D. NO. MW-1

PROJECT: Groundwater Monitoring Well Installation			Sheet 1 of 1
CLIENT: US Electroplating Phase II Investigation			Job No. HRTE-026
GROUNDWATER:	DRILLING METHOD	DEPTH	Elevation
Date / Time / Depth	HSA w/ split spoons	to	Date Started 10/26/88
10/26/88 / 4:00 PM / 20'		to	Date Finished 10/27/88
		to	Driller
		to	Inspector
		to	Well Permit No.

WELL CONSTRUCTION	Depth Feet	SAMPLE No.	Depth/Type	Blows per 6"	IL	CLASSIFICATION	REMARKS
Cement	0		0-2	2,5 4,3		m. lt. brown SAND w/gravel	HNU=0.8ppm
						dark brown m. SAND w/silt	
	5		5-7	4,9 13-20		m. light brown SAND w/gravel	HNU=0.8ppm
Bentonite Slurry			7-9	6,14 17-21			HNU=0.6ppm
	10		10-12	4,13 17,20		m. light brown SAND w/cobble	HNU=1ppm
	15		15-17	4,8 12,15			HNU=0.8ppm
nd ck	20		20-22	5,5 9,10			Groundwater encountered 20' HNU=0.6ppm
	25		25-27	3,5 7,10			HNU=0.6ppm
	30					E.O.B.	

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LeRoy Callender PC

236 West 26 Street
New York, NY 10001

DRILLERS LOG

I.D. NO. MW-2

PROJECT: Groundwater Monitoring Well Installation					Sheet 1 of 1
CLIENT: US Electroplating Phase II Investigation					Job No. HRTE-026
GROUNDWATER:			DRILLING METHOD	DEPTH	Elevation
Date	Time	Depth	HSA	0 to 30	Date Started 11/21/88
11/21/88	11:30 AM	18'		to	Date Finished 11/21/88
				to	Driller
				to	Inspector
				to	Well Permit No.

WELL CONSTRUCTION	Depth Feet	SAMPLE No.	Depth/Type	Blows per 6"	IL	CLASSIFICATION	REMARKS
Cement	0					c brown SAND w/ pebbles	HNU=0.8ppm
	5					c brown SAND w/ cobble	HNU=0.8ppm
Bentonite Slurry	10					c brown SAND w/ large cobble	HNU=6ppm
	15					c brown SAND w/ pebbles	HNU=1ppm
Sand Pack	20						HNU=2ppm Groundwater encountered 18'
	25						HNU=4ppm
	30					E.O.B.	

LeRoy Callender PC

236 West 26 Street
New York, NY 10001

DRILLERS LOG

I.D. NO. MW-3

PROJECT: Groundwater Monitoring Well Installation	Sheet 1 of 1
CLIENT: US Electroplating Phase II Investigation	Job No.
GROUNDWATER: / DRILLING METHOD: HSA w/ split spoons / DEPTH: 0 to 30	Elevation
	Date Started 10/27/88
	Date Finished 10/27/88
	Driller
	Inspector
	Well Permit No.

Date	Time	Depth
10/27/88	3:00	20'

WELL CONSTRUCTION	Depth Feet	SAMPLE No.	Depth/Type	Blows per 6"	IL	CLASSIFICATION	REMARKS
Cement	0		0-2	4,6 9,12		6" asphalt overlying m. light brown SAND w/gravel	HNU=1ppm
	5		5-7	4,6 9,12			HNU=0.8ppm
Bentonite Slurry						m. light brown SAND w/ gravel and some cobble	HNU=0.8ppm
	10		10-12	3,5 5,6			
	15		15-17	9,11 11,10			HNU-1ppm
	20		20-22	6,4 4,4			Groundwater encountered 20'
Sand Pack						m. SAND w/cobble	HNU=0.6ppm
	25		25-27	4,6 6,6			HNU=0.6ppm
	30					E.O.B.	

APPENDIX D

Laboratory Analytical Data

H2M LABS, INC.
575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122
ENVIRONMENTAL and INDUSTRIAL ANALYTICAL LABORATORY

DATA REPORTING QUALIFIERS

Value - If the result is a value greater than or equal to the detection limit, report the value.

U - Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution actions. (This is not necessarily the instrument detection limit). The footnote should read: U-Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J - Indicates as estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g.: If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J).

C - This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides >= 10 ng/ul in the final extract should be confirmed by GC/MS.

B - This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

D - This flag identifies compounds whose concentrations are outside the calibration range of the analysis. If one or more compounds have a response greater than full scale, the extract must be diluted and reanalyzed, according to the specifications in Exhibit D. If the dilution of the extract causes any compounds identified in the first analysis to be below the calibration range in the second analysis, then the results of both analyses shall be reported on separate Forms I. The Form I the diluted sample shall have the "DL" suffix appended to the sample number. Compounds whose concentrations are above the calibration range of the first analysis shall be flagged with "D" on the Form I from that first analysis. Compounds identified in that first analysis but below the calibration range of the second analysis shall be flagged "D" on the Form I for the second analysis. The contractor shall report the results of at most two analyses, one with the "DL" suffix, and one without the suffix.

H2M LABS, INC.
Environmental and Industrial Analytical Laboratory
575 Broad Hollow Road, Melville, NY 11747-5076
516) 694-3040

QUALIFIERS FOR METALS ANALYSIS

E - The reported value is estimated because of the presence of interference. An explanatory note is included in the case narrative.

M - Duplicate injection precision not met.

N - Matrix spiked sample recovery not within control limits.

S - The reported value was determined by the Method of Standard Additions (MSA).

+ - Correlation coeffiecient for the MSA is less than 0.995.

W - Post-digestion spike for Furnace AA analysis is out of control limits (85-115%), while sample absorbance is less than 50% of spike absorbance.

* - Duplicate analysis not within control limits.

Concentration Qualifiers.

B - Entered if the reported value is less than the Contract Required Detection Limit (CRDL) but greater than the Instrument Detection Limit (IDL).

U - Entered if the analyte was analyzed for but not detected, less than the IDL.

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ENVIRONMENTAL and INDUSTRIAL ANALYTICAL SERVICES

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: H2M Labs, Inc. Lab Sample ID: 871556 Sample No. MW #1-SB
Lab Code:--- Case No.----- SAS No.: ------- SDG No.:---------
Matrix: Soil Lab File ID: PU9234
Sample Wt.: 5.250 g Date Received: 10/28/88
Level: Low Date Analyzed: 10/31/88
% Moisture: 6 Dilution Factor: 1
Column: Pack

C.A.S. Number	Compound	Concentration Unit: ug/kg	
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	27	
67-64-1	Acetone	25	
75-15-0	Carbon Disulfide	5	U
75-35-4	1.1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1.2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-02-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	9	BJ
71-55-6	1.1.1-Trichloroethane	4	J
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1.2-Dichloropropane	5	U
10061-02-6	cis-1.3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1.1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-01-5	trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2,Tetrachloroethane	5	U
108-88-3	Toluene	2	J
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Xylene (total)	5	U

Date Reported: 12/1/88

John J. Molloy, P.E.
Laboratory Director

H2M LABS, INC.
575 BROAD HOLLOW ROAD, MELVILLE, N.Y. 11747 • 516-694-3040
ENVIRONMENTAL and INDUSTRIAL ANALYTICAL SERVICES

Lab Name: H2M Labs. Inc.
Lab Code: _____ Case No.: _____
Matrix: Soil
Sample Wt.: 5.25 g
Level: Low
% Moisture: Not dec. 6
Column: Pack

Contract: Gibbs & Hill
SAS No.: _____ SDG No.: _____
Lab Sample ID: 871556
Lab File ID: PU9234
Date Received: 10/28/88
Date Analyzed: 10/31/88
Dilution Factor: 1

Number TICs found: 4 Concentration Units: ug/kg

CAS Number	Compound Name	RT	Est. Conc.	Q
4461487	4-Methyl-2-pentene	9:00	8	JB
71363	1-Butanol	9:30	12	JB
625274	2-Methyl-2-pentene	9:42	11	JB
56052712	1-Propoxy-2-butene	25:51	6	J

Date Reported: 12/1/88

John J. Molloy, P.E.
Laboratory Director

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ENVIRONMENTAL and INDUSTRIAL ANALYTICAL SERVICES

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: H2M Labs, Inc. Lab Sample ID: 871557 Sample No. MW #3-SB
Lab Code:--- Case No.----- SAS No.: ------- SDG No.:---------
Matrix: Soil Lab File ID: PU9235
Sample Wt.: 4.7458 g Date Received: 10/28/88
Level: Low Date Analyzed: 10/31/88
% Moisture: 2 Dilution Factor: 1
Column: Pack

C.A.S. Number	Compound	Concentration Unit: ug/kg	
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	18	
67-64-1	Acetone	7	
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-02-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-02-6	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-01-5	trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2,Tetrachloroethane	5	U
108-88-3	Toluene	2	J
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Xylene (total)	5	U

Date Reported: 12/1/88

John J. Molloy, P.E.
Laboratory Director

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H2M LABS, INC. 575 BROAD HOLLOW ROAD, MELVILLE, N.Y. 11747 • 516-694-3040
ENVIRONMENTAL and INDUSTRIAL ANALYTICAL SERVICES

Lab Name: H2M Labs, Inc.
Lab Code: _____ Case No.: _____
Matrix: Soil
Sample Wt.: 4.7458 g
Level: Low
% Moisture: Not dec. 2
Column: Pack

Contract: Gibbs & Hill
SAS No.: _____ SDG No.: _____
Lab Sample ID: 871557
Lab File ID: PU9235
Date Received: 10/28/88
Date Analyzed: 10/31/88
Dilution Factor: 1

Number TICs found: 4 Concentration Units: ug/kg

CAS Number	Compound Name	RT	Est. Conc.	Q
4461487	4-Methyl-2-pentene	8:57	7	JB
71363	1-Butanol	9:30	15	JB
625274	2-Methyl-2-pentene	9:42	16	JB

Date Reported: 12/1/88

John J. Molloy, P.E.
Laboratory Director

H2M LABS, INC. 575 BROAD HOLLOW ROAD, MELVILLE, N.Y. 11747 • 516-694-3040

ENVIRONMENTAL and INDUSTRIAL ANALYTICAL SERVICES

LEROY CALLENDER, P.C.
236 WEST 26th STREET
NEW YORK, NY 10001

Sample Lab No. 871556
Date Collected: 10/26/88
Date Received: 10/28/88
Matrix: SOIL
Point: MW #1-SB
U.S. ELECTROPLATING INFORMATION
SOIL BORING SAMPLES
Collected By: CL 99
Sample wt: 30.0274 g Level: LOW
% Moisture: not dec. 6% Extraction: SONC
GPC Cleanup: N Dilution Factor: 1.0

SEMIVOLATILE ORGANICS

CAS NO.	COMPOUND	CONC. UNITS ug/kg	Q
108-95-2	Phenol	180	U
111-44-4	bis(2-Chlorethyl)ether	180	U
95-57-8	2-Chlorophenol	180	U
541-73-1	1,3-Dichlorobenzene	180	U
106-46-7	1,4-Dichlorobenzene	180	U
100-51-6	Benzyl alcohol	180	U
95-50-1	1,2-Dichlorobenzene	180	U
95-48-7	2-Methylphenol	180	U
108-60-1	bis(2-Chloroisopropyl)ether	180	U
106-44-5	4-Methylphenol	180	U
621-64-7	N-Nitroso-di-n-propylamine	180	U
67-72-1	Hexachloroethane	180	U
98-95-3	Nitrobenzene	180	U
78-59-1	Isophorone	180	U
88-75-5	2-Nitrophenol	180	U
105-67-9	2,4-Dimethylphenol	180	U
65-85-0	Benzoic acid	900	U
111-91-1	bis(2-Chloroethoxy)methane	180	U
120-83-2	2,4-Dichlorophenol	180	U
120-82-1	1,2,4-Trichlorobenzene	180	U
91-20-3	Naphthalene	180	U
106-47-8	4-Chloroaniline	180	U
87-68-3	Hexachlorobutadiene	180	U
59-50-7	4-Chloro-3-methylphenol	180	U
91-57-6	2-Methylnaphthalene	180	U
77-47-4	Hexachlorocyclopentadiene	180	U
88-06-2	2,4,6-Trichlorophenol	180	U
95-95-4	2,4,5-Trichlorophenol	900	U
91-58-7	2-Chloronaphthalene	180	U
88-74-4	2-Nitroaniline	900	U
131-11-3	Dimethylphthate	180	U
208-96-8	Acenaphthylene	180	U
606-20-2	2,6-Dinitrotoluene	180	U

Date Extracted: 11/02/88
Date Analyzed: 11/18/88
Date Reported: 12/02/88

John J. Molloy, P.E.
Laboratory Director

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H2M LABS, INC. 575 BROAD HOLLOW ROAD, MELVILLE, N.Y. 11747 • 516-694-3040

ENVIRONMENTAL and INDUSTRIAL ANALYTICAL SERVICES

LEROY CALLENDER, P.C.
236 WEST 26th STREET
NEW YORK, NY 10001

Sample Lab No. 871556
Date Collected: 10/26/88
Date Received: 10/28/88
Matrix: SOIL
Point: MW #1-S8
U.S. ELECTROPLATING INFORMATION
SOIL BORING SAMPLES
Collected By: CL 99
Sample wt: 30.0274 g Level: LOW
% Moisture: not dec. 6% Extraction: SONC
GPC Cleanup: N Dilution Factor: 1.0

SEMIVOLATILE ORGANICS

CAS NO.	COMPOUND	CONC. UNITS ug/kg	Q
99-09-2	3-Nitroaniline	900	U
83-32-9	Acenaphthene	180	U
51-28-5	2,4-Dinitrophenol	900	U
100-02-7	4-Nitrophenol	900	U
132-64-9	Dibenzofuran	180	U
121-14-2	2,4-Dinitrotoluene	180	U
84-66-2	Diethylphthalate	180	U
7005-72-3	4-Chlorophenyl-phenylether	180	U
86-73-7	Fluorene	180	U
100-01-6	4-Nitroaniline	900	U
534-52-1	4,6-Dinitro-2-methylphenol	900	U
86-30-6	N-Nitrosodiphenylamine	180	U
101-55-3	4-Bromophenyl-phenylether	180	U
118-74-1	Hexachlorobenzene	180	U
87-86-5	Pentachlorophenol	900	U
85-01-8	Phenanthrene	180	U
120-12-7	Anthracene	180	U
84-74-2	Di-n-butylphthalate	180	U
206-44-0	Fluoranthene	180	U
129-00-0	Pyrene	180	U
85-68-7	Butylbenzylphthalate	180	U
91-94-1	3,3'-Dichlorobenzidine	350	U
56-55-3	Benzo(a)anthracene	180	U
218-01-9	Chrysene	180	U
117-81-7	bis(2-Ethylhexyl)phthalate	120	U
117-84-0	Di-n-octylphthalate	180	U
205-99-2	Benzo(b)fluoranthene	180	U
207-08-9	Benzo(k)fluoranthene	180	U
50-32-8	Benzo(a)pyrene	180	U
193-39-5	Indeno(1,2,3-cd)pyrene	180	U
53-70-3	Dibenz(a,h)anthracene	180	U
191-24-2	Benzo(g,h,i)perylene	180	U

Date Extracted: 11/02/88
Date Analyzed: 11/18/88
Date Reported: 12/02/88

John J. Molloy, P.E.
Laboratory Director

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ENVIRONMENTAL and INDUSTRIAL ANALYTICAL SERVICES

LEROY CALLENDER, P.C.
236 WEST 26th STREET
NEW YORK, NY 10001

Sample Lab No. 871557 RE
Date Collected: 10/26/88
Date Received: 10/28/88
Matrix: SOIL
Point: MW #3-SB
U.S. ELECTROPLATING INFORMATION
SOIL BORING SAMPLES
Collected By: CL 99
Sample wt: 30.0305 g Level: LOW
% Moisture: not dec. 2% Extraction: SONC
GPC Cleanup: N Dilution Factor: 1.0

SEMIVOLATILE ORGANICS

CAS NO.	COMPOUND	CONC. UNITS ug/kg	Q
108-95-2	Phenol	170	U
111-44-4	bis(2-Chlorethyl)ether	170	U
95-57-8	2-Chlorophenol	170	U
541-73-1	1,3-Dichlorobenzene	170	U
106-46-7	1,4-Dichlorobenzene	170	U
100-51-6	Benzyl alcohol	170	U
95-50-1	1,2-Dichlorobenzene	170	U
95-48-7	2-Methylphenol	170	U
108-60-1	bis(2-Chloroisopropyl)ether	170	U
106-44-5	4-Methylphenol	170	U
621-64-7	N-Nitroso-di-n-propylamine	170	U
67-72-1	Hexachloroethane	170	U
98-95-3	Nitrobenzene	170	U
78-59-1	Isophorone	170	U
88-75-5	2-Nitrophenol	170	U
105-67-9	2,4-Dimethylphenol	170	U
65-85-0	Benzoic acid	850	U
111-91-1	bis(2-Chloroethoxy)methane	170	U
120-83-2	2,4-Dichlorophenol	170	U
120-82-1	1,2,4-Trichlorobenzene	170	U
91-20-3	Naphthalene	170	U
106-47-8	4-Chloroaniline	170	U
87-68-3	Hexachlorobutadiene	170	U
59-50-7	4-Chloro-3-methylphenol	170	U
91-57-6	2-Methylnaphthalene	170	U
77-47-4	Hexachlorocyclopentadiene	170	U
88-06-2	2,4,6-Trichlorophenol	170	U
95-95-4	2,4,5-Trichlorophenol	850	U
91-58-7	2-Chloronaphthalene	170	U
88-74-4	2-Nitroaniline	850	U
131-11-3	Dimethylphthate	170	U
208-96-8	Acenaphthylene	170	U
606-20-2	2,6-Dinitrotoluene	170	U

Date Extracted: 11/22/88
Date Analyzed: 11/23/88
Date Reported: 12/02/88

John J. Molloy, P.E.
Laboratory Director

H2M LABS, INC. 575 BROAD HOLLOW ROAD, MELVILLE, N.Y. 11747 • 516-694-3040

ENVIRONMENTAL and INDUSTRIAL ANALYTICAL SERVICES

LEROY CALLENDER, P.C.
236 WEST 26th STREET
NEW YORK, NY 10001

Sample Lab No. 871557 RE
Date Collected: 10/26/88
Date Received: 10/28/88
Matrix: SOIL
Point: MW #3-SB
U.S. ELECTROPLATING INFORMATION
SOIL BORING SAMPLES
Collected By: CL 99
Sample wt: 30.0305 g Level: LOW
% Moisture: not dec. 2% Extraction: SONC
GPC Cleanup: N Dilution Factor: 1.0

SEMIVOLATILE ORGANICS

CAS NO.	COMPOUND	CONC. UNITS ug/kg	Q
99-09-2	3-Nitroaniline	850	U
83-32-9	Acenaphthene	170	U
51-28-5	2,4-Dinitrophenol	850	U
100-02-7	4-Nitrophenol	850	U
132-64-9	Dibenzofuran	170	U
121-14-2	2,4-Dinitrotoluene	170	U
84-66-2	Diethylphthalate	170	U
7005-72-3	4-Chlorophenyl-phenylether	170	U
86-73-7	Fluorene	170	U
100-01-6	4-Nitroaniline	850	U
534-52-1	4,6-Dinitro-2-methylphenol	850	U
86-30-6	N-Nitrosodiphenylamine	170	U
101-55-3	4-Bromophenyl-phenylether	170	U
118-74-1	Hexachlorobenzene	170	U
87-86-5	Pentachlorophenol	850	U
85-01-8	Phenanthrene	170	U
120-12-7	Anthracene	170	U
84-74-2	Di-n-butylphthalate	170	U
206-44-0	Fluoranthene	170	U
129-00-0	Pyrene	170	U
85-68-7	Butylbenzylphthalate	170	U
91-94-1	3,3'-Dichlorobenzidine	340	U
56-55-3	Benzo(a)anthracene	170	U
218-01-9	Chrysene	170	U
117-81-7	bis(2-Ethylhexyl)phthalate	93	J,B
117-84-0	Di-n-octylphthalate	170	U
205-99-2	Benzo(b)fluoranthene	170	U
207-08-9	Benzo(k)fluoranthene	170	U
50-32-8	Benzo(a)pyrene	170	U
193-39-5	Indeno(1,2,3-cd)pyrene	170	U
53-70-3	Dibenz(a,h)anthracene	170	U
191-24-2	Benzo(g,h,i)perylene	170	U

Date Extracted: 11/22/88
Date Analyzed: 11/23/88
Date Reported: 12/02/88

John J. Molloy, P.E.
Laboratory Director

H2M LABS, INC.

575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122

ENVIRONMENTAL and INDUSTRIAL ANALYTICAL LABORATORY

PESTICIDE ORGANICS ANALYSIS DATA SHEET

MW #1-SB
LEROY CALLENDER, P.C.
U.S. ELECTROPLATING
SOIL BORING SAMPLES

Lab Name: H2M LABS, INC. Contract: Gibbs & Hill

Matrix: SOIL
Sample Wt: 3 g
Level: LOW
% Moisture: not dec. 2 dec. ___
Extraction: SONC
GPC Cleanup: NONE pH: ___

Lab Sample ID: 871556
Lab File ID: 176P/4093C
Date Received: 10/28/88
Date Extracted: 11/02/88
Date Analyzed: 12/02/88 P/ 11/21/88 C
Dilution Factor: 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/kg	Q
319-84-6	alpha-BHC	8	U
319-85-7	beta-BHC	8	U
319-86-8	delta-BHC	8	U
58-89-9	gamma-BHC (Lindane)	8	U
76-44-8	Heptachlor	8	U
309-00-2	Aldrin	8	U
1024-57-3	Heptachlor epoxide	8	U
959-98-8	Endosulfan I	16	U
60-57-1	Dieldrin	16	U
72-55-9	4,4'-DDE	16	U
72-20-8	Endrin	16	U
33213-65-9	Endosulfan II	16	U
72-54-8	4,4'-DDD	16	U
1031-07-8	Endosulfan sulfate	16	U
50-29-3	4,4'-DDT	16	U
72-43-5	Methoxychlor	80	U
53494-70-5	Endrin ketone	16	U
5103-71-9	alpha-Chlordane	80	U
5103-74-2	gamma-Chlordane	80	U
8001-35-2	Toxaphene	160	U
12674-11-2	Aroclor-1016	80	U
11104-28-2	Aroclor-1221	80	U
11141-16-5	Aroclor-1232	80	U
53469-21-9	Aroclor-1242	80	U
12672-29-6	Aroclor-1248	80	U
11097-69-1	Aroclor-1254	160	U
11096-82-5	Aroclor-1260	160	U

Date Reported: 1/24/88

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ENVIRONMENTAL and INDUSTRIAL ANALYTICAL LABORATORY

PESTICIDE ORGANICS ANALYSIS DATA SHEET

Lab Name: H2M LABS, INC.
Contract: Gibbs & Hill

MW #3-SB
LEROY CALLENDER, P.C.
U.S. ELECTROPLATING
SOIL BORING SAMPLES

Matrix: SOIL
Sample Wt: 30 g
Level: LOW
% Moisture: not dec. 6 dec. ___
Extraction: SONC
GPC Cleanup: NONE pH: ____

Lab Sample ID: 871557
Lab File ID: 177P/4006C
Date Received: 10/28/88
Date Extracted: 11/02/88
Date Analyzed: 12/02/88 P/ 11/21/88 C
Dilution Factor: 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/kg	Q
319-84-6	alpha-BHC	8	U
319-85-7	beta-BHC	8	U
319-86-8	delta-BHC	8	U
58-89-9	gamma-BHC (Lindane)	8	U
76-44-8	Heptachlor	8	U
309-00-2	Aldrin	8	U
1024-57-3	Heptachlor epoxide	8	U
959-98-8	Endosulfan I	16	U
60-57-1	Dieldrin	16	U
72-55-9	4,4'-DDE	16	U
72-20-8	Endrin	16	U
33213-65-9	Endosulfan II	16	U
72-54-8	4,4'-DDD	16	U
1031-07-8	Endosulfan sulfate	16	U
50-29-3	4,4'-DDT	16	U
72-43-5	Methoxychlor	80	U
53494-70-5	Endrin ketone	16	U
5103-71-9	alpha-Chlordane	80	U
5103-74-2	gamma-Chlordane	80	U
8001-35-2	Toxaphene	160	U
12674-11-2	Aroclor-1016	80	U
11104-28-2	Aroclor-1221	80	U
11141-16-5	Aroclor-1232	80	U
53469-21-9	Aroclor-1242	80	U
12672-29-6	Aroclor-1248	80	U
11097-69-1	Aroclor-1254	160	U
11096-82-5	Aroclor-1260	160	U

Date Reported: 1/24/88

John J. Molloy, P.E.
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ENVIRONMENTAL and INDUSTRIAL ANALYTICAL LABORATORY

INORGANIC ANALYSIS DATA SHEET

MW #1 SB

Lab Name: H2M LABS, INC. Contract: GIBBS & HILL

Matrix (soil/water): SOIL Lab Sample ID: 871558

Level (low/med): LOW Date Received: 10/28/88

% Solids : --

Concentration Units (ug/L or mg/kg dry weight) mg/kg

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	1440			P
7440-36-0	Antimony	4.7			P
7440-38-2	Arsenic	1.2			F
7440-39-3	Barium	7.5			P
7440-41-7	Beryllium	0.21	B		P
7440-43-9	Cadmium	0.21	U		P
7440-70-2	Calcium	136			P
7440-47-3	Chromium	12.8			P
7440-48-4	Cobalt	1.5	B		P
7440-50-8	Copper	7.7			P
7439-89-6	Iron	5706			P
7439-92-1	Lead	3.8			F
7439-95-4	Magnesium	267			P
7439-96-5	Manganese	122			P
7439-97-6	Mercury	0.08	U		CV
7440-02-0	Nickel	1.7	B		P
7440-09-7	Potassium	213			A
7782-49-2	Selenium	1.1	U		F
7440-22-4	Silver	0.64	U		P
7440-23-5	Sodium	2260			P
7440-28-0	Thallium	1.1	U		F
7440-62-2	Vanadium	5.4	B		P
7440-66-6	Zinc	9.0			P
	Cyanide	1.1	U		C
	% Total Solid	94%			

Color Before: -- Clarity Before: -- Texture: --
Color After: -- Clarity After: -- Artifacts: --

Date Reported: 01/05/88

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ENVIRONMENTAL and INDUSTRIAL ANALYTICAL LABORATORY

INORGANIC ANALYSIS DATA SHEET

MW #3 SB

Lab Name: H2M LABS. INC. Contract: GIBBS & HILL

Matrix (soil/water): SOIL Lab Sample ID: 871559

Level (low/med): LOW Date Received: 10/28/88

% Solids : --

Concentration Units (ug/L or mg/kg dry weight) mg/kg

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	2920			P
7440-36-0	Antimony	5.5	B		P
7440-38-2	Arsenic	1.0	U		F
7440-39-3	Barium	7.8			P
7440-41-7	Beryllium	0.20	B		P
7440-43-9	Cadmium	0.20	U		P
7440-70-2	Calcium	1080			P
7440-47-3	Chromium	3.7			P
7440-48-4	Cobalt	2.5	B		P
7440-50-8	Copper	4.3	B		P
7439-89-6	Iron	4810			P
7439-92-1	Lead	6.9			F
7439-95-4	Magnesium	631			P
7439-96-5	Manganese	105			P
7439-97-6	Mercury	0.09	U		CV
7440-02-0	Nickel	2.2	B		P
7440-09-7	Potassium	189			A
7782-49-2	Selenium	10.2	U		F
7440-22-4	Silver	0.61	U		P
7440-23-5	Sodium	2220			P
7440-28-0	Thallium	1.0	U		F
7440-62-2	Vanadium	10.0	B		P
7440-66-6	Zinc	10.8			P
	Cyanide	1.0	U		C
	% Total Solid	98%			

Color Before: -- Clarity Before: -- Texture: --
Color After: -- Clarity After: -- Artifacts: --

Date Reported: 01/05/88

John J. Molloy, P.E.
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ENVIRONMENTAL and INDUSTRIAL ANALYTICAL LABORATORY

CASE NARRATIVE FOR PURGEABLE ORGANICS

All QC data and calibration parameters met contract required criteria except for the deviation of the calibration factor of vinyl chloride which exceeded 25% from the initial calibration.

Low levels of two tentatively identified compound contaminants and targeted compounds were found in the samples which were also present in the blank. None of the compounds exceeded the allowable level for the instrument blank.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Date Reported: 3/18/89

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John J. Molloy, P.E.
Laboratory Director

H2M LABS, INC.
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ENVIRONMENTAL and INDUSTRIAL ANALYTICAL LABORATORY

VOLATILE ORGANICS ANALYSIS DATA SHEET

MW #1
U.S ELECTROPLATING
GROUNDWATER SAMPLES

Lab Name: H2M LABS, INC. Contract: G & H

Matrix: WATER
Sample vol: 5 mL
Level: LOW
% Moisture:not dec. -- dec.
Column:(pack/cap) PACK

Lab Sample ID: 873237
Lab File ID: PU9443
Date Received: 11/28/88
Date Analyzed: 11/29/88
Dilution Factor: 1

RESULTS FOR PRIORITY POLLUTANTS ANALYSIS - PURGEABLE ORGANICS

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	18	B
67-64-1	Acetone	9	J,B
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	5	J,B
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
70-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	6	
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	2	J
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	25	B
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Xylene (total)	5	U

Date Reported: 01/18/89

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John J. Molloy, P.E.
Laboratory Director

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(516) 694-3040 FAX: (516) 694-4122
ENVIRONMENTAL and INDUSTRIAL ANALYTICAL LABORATORY

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

MW #1
U.S. ELECTROPLATING
GROUNDWATER SAMPLES

Lab Name: H2M LABS, INC. Contract: G & H

Matrix: WATER
Sample vol: 5 (mL)
Level: LOW
% Moisture:not dec. - dec.
Column:(pack/cap) PACK

Lab Sample ID: 873237
Lab File ID: PU9443
Date Received: 11/28/88
Date Analyzed: 11/29/88
Dilution Factor: 1

Number TICs found: 2

CONCENTRATION UNITS: ug/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1		UNKNOWN ALKENE	11:15	9	J,B
2		UNKNOWN	11:42	25	J,B
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					

Date Reported: 01/10/89

John J. Molloy, P.E.
Laboratory Director

H2M LABS, INC.
575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122
ENVIRONMENTAL and INDUSTRIAL ANALYTICAL LABORATORY

VOLATILE ORGANICS ANALYSIS DATA SHEET

MW #2
U.S. ELECTROPLATING
GROUNDWATER SAMPLES

Lab Name: H2M LABS, INC. Contract: G & H

Matrix: WATER
Sample vol: 5 mL
Level: LOW
% Moisture:not dec. -- dec.
Column:(pack/cap) PACK

Lab Sample ID: 873238
Lab File ID: PU9444
Date Received: 11/28/88
Date Analyzed: 11/29/88
Dilution Factor: 1

RESULTS FOR PRIORITY POLLUTANTS ANALYSIS - PURGEABLE ORGANICS

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	15	B
67-64-1	Acetone	6	J,B
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
70-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	5	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Xylene (total)	5	U

Date Reported: 01/18/89

John J. Molloy, P.E.
Laboratory Director

H2M LABS, INC.
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ENVIRONMENTAL and INDUSTRIAL ANALYTICAL LABORATORY

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

MW #2
U.S. ELECTROPLATING
GROUNDWATER SAMPLES

Lab Name: H2M LABS, INC. Contract: G & H

Matrix: WATER
Sample vol: 5 (mL)
Level: LOW
% Moisture: not dec. - dec.
Column: (pack/cap) PACK

Lab Sample ID: 873238
Lab File ID: PU9444
Date Received: 11/28/88
Date Analyzed: 11/29/88
Dilution Factor: 1

Number TICs found: 2

CONCENTRATION UNITS: ug/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1		UNKNOWN ALKENE	11:09	11	J
2		UNKNOWN	11:48	31	J
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
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22					
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25					
26					
27					
28					
29					
30					

Date Reported: 01/19/89

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John J. Molloy, P.E.
Laboratory Director

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H2M LABS, INC.
575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122
ENVIRONMENTAL and INDUSTRIAL ANALYTICAL LABORATORY

VOLATILE ORGANICS ANALYSIS DATA SHEET

MW #3
U.S. ELECTROPLATING
GROUNDWATER SAMPLES

Lab Name: H2M LABS, INC. Contract: G & H

Matrix: WATER
Sample vol: 5 mL
Level: LOW
% Moisture:not dec. -- dec.
Column:(pack/cap) PACK

Lab Sample ID: 873239
Lab File ID: PU9445
Date Received: 11/28/88
Date Analyzed: 11/29/88
Dilution Factor: 1

RESULTS FOR PRIORITY POLLUTANTS ANALYSIS - PURGEABLE ORGANICS

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	23	B
67-64-1	Acetone	7	J,B
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	1	J
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	6	J,B
71-55-6	1,1,1-Trichloroethane	8	B
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
70-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	38	
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	3	J
10061-02-6	trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	7	B
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	B
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Xylene (total)	5	U

Date Reported: 01/18/89

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John J. Molloy, P.E.
Laboratory Director

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H2M LABS, INC.
575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122
ENVIRONMENTAL and INDUSTRIAL ANALYTICAL LABORATORY

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

MW #3
U.S. ELECTROPLATING
GROUNDWATER SAMPLES

Lab Name: H2M LABS, INC. Contract: G & H

Matrix: WATER
Sample vol: 5 (mL)
Level: LOW
% Moisture:not dec. - dec.
Column:(pack/cap) PACK

Lab Sample ID: 873239
Lab File ID: PU9445
Date Received: 11/28/88
Date Analyzed: 11/29/88
Dilution Factor: 1

Number TICs found: 2

CONCENTRATION UNITS: ug/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1		UNKNOWN ALKENE	11:09	9	J,B
2		UNKNOWN	11:39	31	J,B
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					

Date Reported: 01/18/89

John J. Molloy, P.E.
Laboratory Director

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575 Broad Hollow Road, Melville, N.Y. 11747
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ENVIRONMENTAL and INDUSTRIAL ANALYTICAL LABORATORY

VOLATILE ORGANICS ANALYSIS DATA SHEET

MW #4
U.S. ELECTROPLATING
GROUNDWATER SAMPLES

Lab Name: H2M LABS, INC. Contract: G & H

Matrix: WATER
Sample vol: 5 mL
Level: LOW
% Moisture:not dec. -- dec.
Column:(pack/cap) PACK

Lab Sample ID: 873240
Lab File ID: PU9446
Date Received: 11/28/88
Date Analyzed: 11/29/88
Dilution Factor: 1

RESULTS FOR PRIORITY POLLUTANTS ANALYSIS - PURGEABLE ORGANICS

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	19	B
67-64-1	Acetone	11	B
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	3	J
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	6	J,B
71-55-6	1,1,1-Trichloroethane	9	B
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
70-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	35	
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	
10061-02-6	trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	B
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Xylene (total)	5	U

Date Reported: 01/18/89

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Middle
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John J. Molloy, P.E.
Laboratory Director

H2M LABS, INC.
575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122
ENVIRONMENTAL and INDUSTRIAL ANALYTICAL LABORATORY

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

MW #4
U.S. ELECTROPLATING
GROUNDWATER SAMPLES

Lab Name: H2M LABS, INC. Contract: G & H

Matrix: WATER
Sample vol: 5 (mL)
Level: LOW
% Moisture: not dec. - dec.
Column: (pack/cap) PACK

Lab Sample ID: 873240
Lab File ID: PU9446
Date Received: 11/28/88
Date Analyzed: 11/29/88
Dilution Factor: 1

Number TICs found: 2

CONCENTRATION UNITS: ug/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1		UNKNOWN ALKENE	11:06	11	J,B
2		UNKNOWN	11:48	32	J,B
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
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21					
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29					
30					

Date Reported: 01/18/89

John J. Molloy, P.E.
Laboratory Director

H2M LABS, INC.
575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122
ENVIRONMENTAL and INDUSTRIAL ANALYTICAL LABORATORY

VOLATILE ORGANICS ANALYSIS DATA SHEET

FIELD BLANK
U.S. ELECTROPLATING
GROUNDWATER SAMPLES

Lab Name: H2M LABS, INC. Contract: G & H

Matrix: WATER
Sample vol: 5 mL
Level: LOW
% Moisture:not dec. -- dec.
Column:(pack/cap) PACK

Lab Sample ID: 873241
Lab File ID: PU9447
Date Received: 11/28/88
Date Analyzed: 11/29/88
Dilution Factor: 1

RESULTS FOR PRIORITY POLLUTANTS ANALYSIS - PURGEABLE ORGANICS

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	23	B
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	6	J,B
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
70-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Xylene (total)	5	U

Date Reported: 01/18/89

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John J. Molloy, P.E.
Laboratory Director

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H2M LABS, INC.
575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122
ENVIRONMENTAL and INDUSTRIAL ANALYTICAL LABORATORY

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

FIELD BLANK
U.S. ELECTROPLATING
GROUNDWATER SAMPLES

Lab Name: H2M LABS, INC. Contract: G & H

Matrix: WATER
Sample vol: 5 (mL)
Level: LOW
% Moisture:not dec. - dec.
Column:(pack/cap) PACK

Lab Sample ID: 873241
Lab File ID: PU9447
Date Received: 11/28/88
Date Analyzed: 11/29/88
Dilution Factor: 1

Number TICs found: 2

CONCENTRATION UNITS: ug/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1		UNKNOWN ALKENE	11:09	12	J,B
2		UNKNOWN	11:39	30	J,B
3					
4					
5					
6					
7					
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9					
10					
11					
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Date Reported: 01/18/89

John J. Molloy, P.E.
Laboratory Director

H2M LABS, INC.
575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122
ENVIRONMENTAL and INDUSTRIAL ANALYTICAL LABORATORY

VOLATILE ORGANICS ANALYSIS DATA SHEET

TRIP BLANK
U.S. ELECTROPLATING
GROUNDWATER SAMPLES

Lab Name: H2M LABS, INC. Contract: G & H

Matrix: WATER
Sample vol: 5 mL
Level: LOW
% Moisture:not dec. -- dec.
Column:(pack/cap) PACK

Lab Sample ID: 873242
Lab File ID: PU9448
Date Received: 11/28/88
Date Analyzed: 11/29/88
Dilution Factor: 1

RESULTS FOR PRIORITY POLLUTANTS ANALYSIS - PURGEABLE ORGANICS

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	20	B
67-64-1	Acetone	9	J,B
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	1	J
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	4	J,B
71-55-6	1,1,1-Trichloroethane	3	J,B
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
70-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	3	J,B
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Xylene (total)	5	U

Date Reported: 01/18/89

John J. Molloy, P.E.
Laboratory Director

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H2M LABS, INC.
575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122
ENVIRONMENTAL and INDUSTRIAL ANALYTICAL LABORATORY

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

TRIP BLANK
U.S. ELECTROPLATING
GROUNDWATER SAMPLES

Lab Name: H2M LABS, INC. Contract: G & H

Matrix: WATER
Sample vol: 5 (mL)
Level: LOW
% Moisture:not dec. - dec.
Column:(pack/cap) PACK

Lab Sample ID: 873242
Lab File ID: PU9448
Date Received: 11/28/88
Date Analyzed: 11/29/88
Dilution Factor: 1

Number TICs found: 2

CONCENTRATION UNITS: ug/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1		UNKNOWN ALKENE	11:12	10	J,B
2		UNKNOWN	11:48	24	J,B
3					
4					
5					
6					
7					
8					
9					
10					
11					
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27					
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30					

Date Reported: 01/18/89

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John J. Molloy, P.E.
Laboratory Director

H2M LABS, INC.
575 Broad Hollow Road, Melville, N.Y. 1174
(516) 694-3040 FAX: (516) 694-4122
ENVIRONMENTAL and INDUSTRIAL ANALYTICAL LABORATORY

CASE NARRATIVE FOR BASE NEUTRAL/ACID EXTRACTAABLES

All Quality Control and calibration criteria were met for this data package.

Low levels of some non-targeted compounds were detected in the method blank. When these compounds were detected in the samples, they were flagged with the qualifier "B".

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Date Reported: 01/12/89

John J. Molloy, P.E.
Laboratory Director

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW #1

Lab Name: H2M LABS INC. Contract: -------

Lab Code: ------- Case No.: ------- SAS No.: ------- SDG No.: MW #1

Matrix: (soil/water) WATER Lab Sample ID: 873237

Sample wt/vol: 1000 (g/mL) ML Lab File ID: P5713

Level: (low/med) LOW Date Received: 11/28/88

% Moisture: not dec.---- dec. ---- Date Extracted: 11/29/88

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 12/30/88

GPC Cleanup: (Y/N) N pH: 7.2 Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
108-95-2	Phenol	10.	U
111-44-4	bis(2-Chloroethyl)Ether	10.	U
95-57-8	2-Chlorophenol	10.	U
541-73-1	1,3-Dichlorobenzene	10.	U
106-46-7	1,4-Dichlorobenzene	10.	U
100-51-6	Benzyl alcohol	10.	U
95-50-1	1,2-Dichlorobenzene	10.	U
95-48-7	2-Methylphenol	10.	U
39638-32-9	bis(2-chloroisopropyl)ether	10.	U
106-44-5	4-Methylphenol	10.	U
621-64-7	N-Nitroso-Di-n-propylamine	10.	U
67-72-1	Hexachloroethane	10.	U
98-95-3	Nitrobenzene	10.	U
78-59-1	Isophorone	10.	U
88-75-5	2-Nitrophenol	10.	U
105-67-9	2,4-Dimethylphenol	10.	U
65-85-0	Benzoic acid	50.	U
111-91-1	bis(2-Chloroethoxy)methane	10.	U
120-83-2	2,4-Dichlorophenol	10.	U
120-82-1	1,2,4-Trichlorobenzene	10.	U
91-20-3	Naphthalene	10.	U
106-47-8	4-Chloroaniline	10.	U
87-68-3	Hexachlorobutadiene	10.	U
59-50-7	4-Chloro-3-methylphenol	10.	U
91-57-6	2-Methylnaphthalene	10.	U
77-47-4	Hexachlorocyclopentadiene	10.	U
88-06-2	2,4,6-Trichlorophenol	10.	U
95-95-4	2,4,5-Trichlorophenol	50.	U
91-58-7	2-Chloronaphthalene	10.	U
88-74-4	2-Nitroaniline	50.	U
131-11-3	Dimethylphthalate	10.	U
208-96-8	Acenaphthylene	10.	U
606-20-2	2,6-Dinitrotoluene	10.	U

John J. [illegible]
Laboratory Director

Date Reported: 1/9/89

FORM 1 BN-1 1/87 Rev.

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1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW #1

Lab Name: HIM LABS INC. Contract: -------

Lab Code: ------- Case No.: ------- SAS No.: ------- SDG No.: MW #1

Matrix: (soil/water) WATER Lab Sample ID: 873237

Sample wt/vol: 1000 (g/mL) ML Lab File ID: [illegible]

Level: (low/med) LOW Date Received: 11/28/88

% Moisture: not dec.---- dec. ---- Date Extracted: 11/29/88

Extraction: (Sep/Cont/Sonc) SEPF Date Analyzed: 12/30/88

GPC Cleanup: (Y/N) N pH: 7.2 Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
99-09-2	3-Nitroaniline	50.	U
83-32-9	Acenaphthene	10.	U
51-28-5	2,4-Dinitrophenol	50.	U
100-02-7	4-Nitrophenol	50.	U
132-64-9	Dibenzofuran	10.	U
121-14-2	2,4-Dinitrotoluene	10.	U
84-66-2	Diethylphthalate	10.	U
7005-72-3	4-Chlorophenyl-phenylether	10.	U
86-73-7	Fluorene	10.	U
100-01-6	4-Nitroaniline	50.	U
534-52-1	4,6-Dinitro-2-methylphenol	50.	U
86-30-6	N-Nitrosodiphenylamine (1)	10.	U
101-55-3	4-Bromophenyl-phenylether	10.	U
118-74-1	Hexachlorobenzene	10.	U
87-86-5	Pentachlorophenol	50.	U
85-01-8	Phenanthrene	10.	U
120-12-7	Anthracene	10.	U
84-74-2	Di-n-butylphthalate	10.	U
206-44-0	Fluoranthene	10.	U
129-00-0	Pyrene	10.	U
85-68-7	Butylbenzylphthalate	10.	U
91-94-1	3,3'-Dichlorobenzidine	20.	U
56-55-3	Benzo(a)anthracene	10.	U
218-01-9	Chrysene	10.	U
117-81-7	bis(2-Ethylhexyl)phthalate	4.	JB
117-84-0	Di-n-octylphthalate	10.	U
205-99-2	Benzo(b)fluoranthene	10.	U
207-08-9	Benzo(k)fluoranthene	10.	U
50-32-8	Benzo(a)pyrene	10.	U
193-39-5	Indeno(1,2,3-cd)pyrene	10.	U
53-70-3	Dibenzo(a,h)anthracene	10.	U
191-24-2	Benzo(g,h,i)perylene	10.	U

(1) - Cannot be separated from Diphenylamine

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John J. Molloy, I
Laboratory Direc

Date Reported: 1/9/89

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW #1

Lab Name: H2M LABS INC. Contract: -------

Lab Code: ------- Case No.: ------- SAS No.: ------- SDG No.: MW #1

Matrix: (soil/water) WATER Lab Sample ID: 873237

Sample wt/vol: 1000 (g/mL) ML Lab File ID: P5318

Level: (low/med) LOW Date Received: 11/28/88

% Moisture: not dec.---- dec. ---- Date Extracted: 11/29/88

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 12/30/88

GPC Cleanup: (Y/N) N pH: 7.2 Dilution Factor: 1.00000

Number TICs found: 2

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	1120214	Undecane (8CI9CI)	14.01	8.	J
2.	21964498	1,13-Tetradecadiene (8CI9CI)	29.35	30.	JB
3.					
4.					
5.					
6.					
7.					
8.					
9.					
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11.					
12.					
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24.					
25.					
26.					
27.					
28.					
29.					
30.		Date Reported: 1/9/89			

John J. Molloy, P.E.
Laboratory Director

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1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW #2

Lab Name: H2M LABS INC. Contract: -------

Lab Code: ------- Case No.: ------- SAS No.: ------- SDG No.: MW #1

Matrix: (soil/water) WATER Lab Sample ID: 873238

Sample wt/vol: 1000 (g/mL) ML Lab File ID: >P5321

Level: (low/med) LOW Date Received: 11/28/88

% Moisture: not dec.---- dec. ---- Date Extracted: 11/29/88

Extraction: (Sept/Cont/Sonc) SEPF Date Analyzed: 12/30/88

GPC Cleanup: (Y/N) N pH: 7.2 Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
108-95-2	Phenol	10.	U
111-44-4	bis(2-Chloroethyl)Ether	10.	U
95-57-8	2-Chlorophenol	10.	U
541-73-1	1,3-Dichlorobenzene	10.	U
106-46-7	1,4-Dichlorobenzene	10.	U
100-51-6	Benzyl alcohol	10.	U
95-50-1	1,2-Dichlorobenzene	10.	U
95-48-7	2-Methylphenol	10.	U
39638-32-9	bis(2-chloroisopropyl)ether	10.	U
106-44-5	4-Methylphenol	10.	U
621-64-7	N-Nitroso-Di-n-propylamine	10.	U
67-72-1	Hexachloroethane	10.	U
98-95-3	Nitrobenzene	10.	U
78-59-1	Isophorone	10.	U
88-75-5	2-Nitrophenol	10.	U
105-67-9	2,4-Dimethylphenol	10.	U
65-85-0	Benzoic acid	50.	U
111-91-1	bis(2-Chloroethoxy)methane	10.	U
120-83-2	2,4-Dichlorophenol	10.	U
120-82-1	1,2,4-Trichlorobenzene	10.	U
91-20-3	Naphthalene	10.	U
106-47-8	4-Chloroaniline	10.	U
87-68-3	Hexachlorobutadiene	10.	U
59-50-7	4-Chloro-3-methylphenol	10.	U
91-57-6	2-Methylnaphthalene	10.	U
77-47-4	Hexachlorocyclopentadiene	10.	U
88-06-2	2,4,6-Trichlorophenol	10.	U
95-95-4	2,4,5-Trichlorophenol	50.	U
91-58-7	2-Chloronaphthalene	10.	U
88-74-4	2-Nitroaniline	50.	U
131-11-3	Dimethylphthalate	10.	U
208-96-8	Acenaphthylene	10.	U
606-20-2	2,6-Dinitrotoluene	10.	U

Date Reported: 1/9/89

John J. Molloy, P.E.
Laboratory Director

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW #2

Lab Name: H2M LABS INC. Contract: -------

Lab Code: ------- Case No.: ------- SAS No.: ------- SDG No.: MW #1

Matrix: (soil/water) WATER Lab Sample ID: 873238

Sample wt/vol: 1000 (g/mL) ML Lab File ID: P5321

Level: (low/med) LOW Date Received: 11/29/88

% Moisture: not dec.---- dec. ---- Date Extracted: 11/29/88

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 12/30/88

GPC Cleanup: (Y/N) N pH: 7.2 Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
99-09-2	3-Nitroaniline	50.	U
83-32-9	Acenaphthene	10.	U
51-28-5	2,4-Dinitrophenol	50.	U
100-02-7	4-Nitrophenol	50.	U
132-64-9	Dibenzofuran	10.	U
121-14-2	2,4-Dinitrotoluene	10.	U
84-66-2	Diethylphthalate	10.	U
7005-72-3	4-Chlorophenyl-phenylether	10.	U
86-73-7	Fluorene	10.	U
100-01-6	4-Nitroaniline	50.	U
534-52-1	4,6-Dinitro-2-methylphenol	50.	U
86-30-6	N-Nitrosodiphenylamine (1)	10.	U
101-55-3	4-Bromophenyl-phenylether	10.	U
118-74-1	Hexachlorobenzene	10.	U
87-86-5	Pentachlorophenol	50.	U
85-01-8	Phenanthrene	10.	U
120-12-7	Anthracene	10.	U
84-74-2	Di-n-butylphthalate	10.	U
206-44-0	Fluoranthene	10.	U
129-00-0	Pyrene	10.	U
85-68-7	Butylbenzylphthalate	10.	U
91-94-1	3,3'-Dichlorobenzidine	20.	U
56-55-3	Benzo(a)anthracene	10.	U
218-01-9	Chrysene	10.	U
117-81-7	bis(2-Ethylhexyl)phthalate	6.	JB
117-84-0	Di-n-octylphthalate	10.	U
205-99-2	Benzo(b)fluoranthene	10.	U
207-08-9	Benzo(k)fluoranthene	10.	U
50-32-8	Benzo(a)pyrene	10.	U
193-39-5	Indeno(1,2,3-cd)pyrene	10.	U
53-70-3	Dibenzo(a,h)anthracene	10.	U
191-24-2	Benzo(g,h,i)perylene	10.	U

(1) - Cannot be separated from Diphenylamine

14

John J. Molloy,
342 Laboratory Director

Date Reported: 1/9/89

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW #2

Lab Name: H2M LABS INC. Contract: -------

Lab Code: ------- Case No.: ------- SAS No.: ------- SDG No.: MW #1

Matrix: (soil/water) WATER Lab Sample ID: 873238

Sample wt/vol: 1000 (g/mL) ML Lab File ID: P5321

Level: (low/med) LOW Date Received: 11/28/88

% Moisture: not dec.---- dec. ---- Date Extracted: 11/29/88

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 12/30/88

GPC Cleanup: (Y/N) N pH: 7.2 Dilution Factor: 1.00000

Number TICs found: 2

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	1120214	Undecane (8CI9CI)	14.01	8.	J
2.	21964498	1,13-Tetradecadiene (8CI9CI)	29.43	16.	JB
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Date Reported: 1/9/89

John J. Mollov, P.E.
Laboratory Director

FORM I SV-TIC 1/87 Rev.

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW #3

Lab Name: H2M LABS INC. Contract: -------

Lab Code: ------- Case No.: ------- SAS No.: ------- SDG No.: MW #1

Matrix: (soil/water) WATER Lab Sample ID: 873239

Sample wt/vol: 1000 (g/mL) ML Lab File ID: P5322

Level: (low/med) LOW Date Received: 11/28/88

% Moisture: not dec.---- dec. ---- Date Extracted: 11/29/88

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 12/30/88

GPC Cleanup: (Y/N) N pH: 7.2 Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
108-95-2	Phenol	10.	U
111-44-4	bis(2-Chloroethyl)Ether	10.	U
95-57-8	2-Chlorophenol	10.	U
541-73-1	1,3-Dichlorobenzene	10.	U
106-46-7	1,4-Dichlorobenzene	10.	U
100-51-6	Benzyl alcohol	10.	U
95-50-1	1,2-Dichlorobenzene	10.	U
95-48-7	2-Methylphenol	10.	U
39638-32-9	bis(2-chloroisopropyl)ether	10.	U
106-44-5	4-Methylphenol	10.	U
621-64-7	N-Nitroso-Di-n-propylamine	10.	U
67-72-1	Hexachloroethane	10.	U
98-95-3	Nitrobenzene	10.	U
78-59-1	Isophorone	10.	U
88-75-5	2-Nitrophenol	10.	U
105-67-9	2,4-Dimethylphenol	10.	U
65-85-0	Benzoic acid	50.	U
111-91-1	bis(2-Chloroethoxy)methane	10.	U
120-83-2	2,4-Dichlorophenol	10.	U
120-82-1	1,2,4-Trichlorobenzene	10.	U
91-20-3	Naphthalene	10.	U
106-47-8	4-Chloroaniline	10.	U
87-68-3	Hexachlorobutadiene	10.	U
59-50-7	4-Chloro-3-methylphenol	10.	U
91-57-6	2-Methylnaphthalene	10.	U
77-47-4	Hexachlorocyclopentadiene	10.	U
88-06-2	2,4,6-Trichlorophenol	10.	U
95-95-4	2,4,5-Trichlorophenol	50.	U
91-58-7	2-Chloronaphthalene	10.	U
88-74-4	2-Nitroaniline	50.	U
131-11-3	Dimethylphthalate	10.	U
208-96-8	Acenaphthylene	10.	U
606-20-2	2,6-Dinitrotoluene	10.	U

Date Reported: 1/9/89

John J. Molloy, P.E.
Laboratory Director

FORM I SV-1 /87 Rev.

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW #3

Lab Name: H2M LABS INC. Contract: -------

Lab Code: ------- Case No.: ------- SAS No.: ------- SDG No.: MW #1

Matrix: (soil/water) WATER Lab Sample ID: 873239

Sample wt/vol: 1000 (g/mL) ML Lab File ID: >P5322

Level: (low/med) LOW Date Received: 11/29/88

% Moisture: not dec.---- dec. ---- Date Extracted: 11/29/88

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 12/30/88

GPC Cleanup: (Y/N) N pH: 7.2 Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
99-09-2	3-Nitroaniline	50.	U
83-32-9	Acenaphthene	10.	U
51-28-5	2,4-Dinitrophenol	50.	U
100-02-7	4-Nitrophenol	50.	U
132-64-9	Dibenzofuran	10.	U
121-14-2	2,4-Dinitrotoluene	10.	U
84-66-2	Diethylphthalate	10.	U
7005-72-3	4-Chlorophenyl-phenylether	10.	U
86-73-7	Fluorene	10.	U
100-01-6	4-Nitroaniline	50.	U
534-52-1	4,6-Dinitro-2-methylphenol	50.	U
86-30-6	N-Nitrosodiphenylamine (1)	10.	U
101-55-3	4-Bromophenyl-phenylether	10.	U
118-74-1	Hexachlorobenzene	10.	U
87-86-5	Pentachlorophenol	50.	U
85-01-8	Phenanthrene	10.	U
120-12-7	Anthracene	10.	U
84-74-2	Di-n-butylphthalate	10.	U
206-44-0	Fluoranthene	10.	U
129-00-0	Pyrene	10.	U
85-68-7	Butylbenzylphthalate	10.	U
91-94-1	3,3'-Dichlorobenzidine	20.	U
56-55-3	Benzo(a)anthracene	10.	U
218-01-9	Chrysene	10.	U
117-81-7	bis(2-Ethylhexyl)phthalate	12.	B
117-84-0	Di-n-octylphthalate	10.	U
205-99-2	Benzo(b)fluoranthene	10.	U
207-08-9	Benzo(k)fluoranthene	10.	U
50-32-8	Benzo(a)pyrene	10.	U
193-39-5	Indeno(1,2,3-cd)pyrene	10.	U
53-70-3	Dibenzo(a,h)anthracene	10.	U
191-24-2	Benzo(g,h,i)perylene	10.	U

(1) - Cannot be separated from Diphenylamine

****

John J. Molloy,
Laboratory Direc

Date Reported: 1/9/89

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FORM I SV-2 1/87 Rev.

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW #3

Lab Name: H2M LABS INC. Contract: -------

Lab Code: ------- Case No.: ------- SAS No.: ------- SDG No.: MW #1

Matrix: (soil/water) WATER Lab Sample ID: 877239

Sample wt/vol: 1000 (g/mL) ML Lab File ID: P5322

Level: (low/med) LOW Date Received: 11/28/88

% Moisture: not dec.---- dec. ---- Date Extracted: 11/29/88

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 12/30/88

GPC Cleanup: (Y/N) N pH: 7.2 Dilution Factor: 1.00000

Number TICs found: 1

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	1120214	Undecane (8CI9CI)	14.01	8.	J
2.					
3.					
4.					
5.					
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Date Reported: 1/9/89

John J. Molloy, P.E.
Laboratory Director

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW #4

Lab Name: H2M LABS INC. Contract: -------

Lab Code: ------- Case No.: ------- SAS No.: ------- SDG No.: MW #1

Matrix: (soil/water) WATER Lab Sample ID: 873240

Sample wt/vol: 1000 (g/mL) ML Lab File ID: >P5323

Level: (low/med) LOW Date Received: 11/28/88

% Moisture: not dec.---- dec. ---- Date Extracted: 11/29/88

Extraction: (Sep/Cont/Sonc) SEPF Date Analyzed: 12/30/88

GPC Cleanup: (Y/N) N pH: 7.2 Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
108-95-2	Phenol	10.	U
111-44-4	bis(2-Chloroethyl)Ether	10.	U
95-57-8	2-Chlorophenol	10.	U
541-73-1	1,3-Dichlorobenzene	10.	U
106-46-7	1,4-Dichlorobenzene	10.	U
100-51-6	Benzyl alcohol	10.	U
95-50-1	1,2-Dichlorobenzene	10.	U
95-48-7	2-Methylphenol	10.	U
39638-32-9	bis(2-chloroisopropyl)ether	10.	U
106-44-5	4-Methylphenol	10.	U
621-64-7	N-Nitroso-Di-n-propylamine	10.	U
67-72-1	Hexachloroethane	10.	U
98-95-3	Nitrobenzene	10.	U
78-59-1	Isophorone	10.	U
88-75-5	2-Nitrophenol	10.	U
105-67-9	2,4-Dimethylphenol	10.	U
65-85-0	Benzoic acid	50.	U
111-91-1	bis(2-Chloroethoxy)methane	10.	U
120-83-2	2,4-Dichlorophenol	10.	U
120-82-1	1,2,4-Trichlorobenzene	10.	U
91-20-3	Naphthalene	10.	U
106-47-8	4-Chloroaniline	10.	U
87-68-3	Hexachlorobutadiene	10.	U
59-50-7	4-Chloro-3-methylphenol	10.	U
91-57-6	2-Methylnaphthalene	10.	U
77-47-4	Hexachlorocyclopentadiene	10.	U
88-06-2	2,4,6-Trichlorophenol	10.	U
95-95-4	2,4,5-Trichlorophenol	50.	U
91-58-7	2-Chloronaphthalene	10.	U
88-74-4	2-Nitroaniline	50.	U
131-11-3	Dimethylphthalate	10.	U
208-96-8	Acenaphthylene	10.	U
606-20-2	2,6-Dinitrotoluene	10.	U

John J. Molloy, P.E.
Laboratory Director

Date Reported: 1/9/89

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW #4

Lab Name: H2M LABS INC. Contract: -------

Lab Code: ------- Case No.: ------- SAS No.: ------- SDG No.: MW #1

Matrix: (soil/water) WATER Lab Sample ID: 873240

Sample wt/vol: 1000 (g/mL) ML Lab File ID: >P5323

Level: (low/med) LOW Date Received: 11/28/88

% Moisture: not dec.---- dec. ---- Date Extracted: 11/29/88

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 12/30/88

GPC Cleanup: (Y/N) N pH: 7.2 Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
99-09-2	3-Nitroaniline	50.	U
83-32-9	Acenaphthene	10.	U
51-28-5	2,4-Dinitrophenol	50.	U
100-02-7	4-Nitrophenol	50.	U
132-64-9	Dibenzofuran	10.	U
121-14-2	2,4-Dinitrotoluene	10.	U
84-66-2	Diethylphthalate	10.	U
7005-72-3	4-Chlorophenyl-phenylether	10.	U
86-73-7	Fluorene	10.	U
100-01-6	4-Nitroaniline	50.	U
534-52-1	4,6-Dinitro-2-methylphenol	50.	U
86-30-6	N-Nitrosodiphenylamine (1)	10.	U
101-55-3	4-Bromophenyl-phenylether	10.	U
118-74-1	Hexachlorobenzene	10.	U
87-86-5	Pentachlorophenol	50.	U
85-01-8	Phenanthrene	10.	U
120-12-7	Anthracene	10.	U
84-74-2	Di-n-butylphthalate	10.	U
206-44-0	Fluoranthene	10.	U
129-00-0	Pyrene	10.	U
85-68-7	Butylbenzylphthalate	10.	U
91-94-1	3,3'-Dichlorobenzidine	20.	U
56-55-3	Benzo(a)anthracene	10.	U
218-01-9	Chrysene	10.	U
117-81-7	bis(2-Ethylhexyl)phthalate	10.	B
117-84-0	Di-n-octylphthalate	10.	U
205-99-2	Benzo(b)fluoranthene	10.	U
207-08-9	Benzo(k)fluoranthene	10.	U
50-32-8	Benzo(a)pyrene	10.	U
193-39-5	Indeno(1,2,3-cd)pyrene	10.	U
53-70-3	Dibenzo(a,h)anthracene	10.	U
191-24-2	Benzo(g,h,i)perylene	10.	U

(1) - Cannot be separated from Diphenylamine

**** **** **** ****

John J. Molloy, Laboratory Director

Date Reported: 1/9/89

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1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW #4

Lab Name: HOM LABS INC. Contract: -------

Lab Code: ------- Case No.: ------- SAS No.: ------- SDG No.: MW #1

Matrix: (soil/water) WATER Lab Sample ID: 873240

Sample wt/vol: 1000 (g/mL) ML Lab File ID: P5323

Level: (low/med) LOW Date Received: 11/28/88

% Moisture: not dec.---- dec. ---- Date Extracted: 11/29/88

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 12/30/88

GPC Cleanup: (Y/N) N pH: 7.2 Dilution Factor: 1.00000

Number TICs found: 3 CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	1120214	Undecane (8CI9CI)	14.01	8.	J
2.	21964498	1,13-Tetradecadiene (8CI9CI)	29.51	92.	JB
3.		Unknown	37.36	8.	J
4.					
5.					
6.					
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Date Reported: 1/9/89

John J. Molloy, P.E.
Laboratory Director

FORM I SV-TIC 1/87 Rev.

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

FIELD BLANK

Lab Name: H2M LABS INC. Contract: -------

Lab Code: ------- Case No.: ------- SAS No.: ------- SDG No.: MW #1

Matrix: (soil/water) WATER Lab Sample ID: 873241

Sample wt/vol: 1000 (g/mL) ML Lab File ID: >P5324

Level: (low/med) LOW Date Received: 11/28/88

% Moisture: not dec.---- dec. ---- Date Extracted: 11/29/88

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 12/30/88

GPC Cleanup: (Y/N) N pH: 7.2 Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
108-95-2	Phenol	10.	U
111-44-4	bis(2-Chloroethyl)Ether	10.	U
95-57-8	2-Chlorophenol	10.	U
541-73-1	1,3-Dichlorobenzene	10.	U
106-46-7	1,4-Dichlorobenzene	10.	U
100-51-6	Benzyl alcohol	10.	U
95-50-1	1,2-Dichlorobenzene	10.	U
95-48-7	2-Methylphenol	10.	U
39638-32-9	bis(2-chloroisopropyl)ether	10.	U
106-44-5	4-Methylphenol	10.	U
621-64-7	N-Nitroso-Di-n-propylamine	10.	U
67-72-1	Hexachloroethane	10.	U
98-95-3	Nitrobenzene	10.	U
78-59-1	Isophorone	10.	U
88-75-5	2-Nitrophenol	10.	U
105-67-9	2,4-Dimethylphenol	10.	U
65-85-0	Benzoic acid	50.	U
111-91-1	bis(2-Chloroethoxy)methane	10.	U
120-83-2	2,4-Dichlorophenol	10.	U
120-82-1	1,2,4-Trichlorobenzene	10.	U
91-20-3	Naphthalene	10.	U
106-47-8	4-Chloroaniline	10.	U
87-68-3	Hexachlorobutadiene	10.	U
59-50-7	4-Chloro-3-methylphenol	10.	U
91-57-6	2-Methylnaphthalene	10.	U
77-47-4	Hexachlorocyclopentadiene	10.	U
88-06-2	2,4,6-Trichlorophenol	10.	U
95-95-4	2,4,5-Trichlorophenol	50.	U
91-58-7	2-Chloronaphthalene	10.	U
88-74-4	2-Nitroaniline	50.	U
131-11-3	Dimethylphthalate	10.	U
208-96-8	Acenaphthylene	10.	U
606-20-2	2,6-Dinitrotoluene	10.	U

Date Reported: 1/9/89

John J. Molloy, P.E.
Laboratory Director

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1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

FIELD BLANK

Lab Name: H2M LABS INC. Contract: -------

Lab Code: ------- Case No.: ------- SAS No.: ------- SDG No.: MW #1

Matrix: (soil/water) WATER Lab Sample ID: 873241

Sample wt/vol: 1000 (g/mL) ML Lab File ID: P5324

Level: (low/med) LOW Date Received: 11/28/88

% Moisture: not dec.---- dec. ---- Date Extracted: 11/29/88

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 12/30/88

GPC Cleanup: (Y/N) N pH: 7.2 Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
99-09-2	3-Nitroaniline	50.	U
83-32-9	Acenaphthene	10.	U
51-28-5	2,4-Dinitrophenol	50.	U
100-02-7	4-Nitrophenol	50.	U
132-64-9	Dibenzofuran	10.	U
121-14-2	2,4-Dinitrotoluene	10.	U
84-66-2	Diethylphthalate	10.	U
7005-72-3	4-Chlorophenyl-phenylether	10.	U
86-73-7	Fluorene	10.	U
100-01-6	4-Nitroaniline	50.	U
534-52-1	4,6-Dinitro-2-methylphenol	50.	U
86-30-6	N-Nitrosodiphenylamine (1)	10.	U
101-55-3	4-Bromophenyl-phenylether	10.	U
118-74-1	Hexachlorobenzene	10.	U
87-86-5	Pentachlorophenol	50.	U
85-01-8	Phenanthrene	10.	U
120-12-7	Anthracene	10.	U
84-74-2	Di-n-butylphthalate	10.	U
206-44-0	Fluoranthene	10.	U
129-00-0	Pyrene	10.	U
85-68-7	Butylbenzylphthalate	10.	U
91-94-1	3,3'-Dichlorobenzidine	20.	U
56-55-3	Benzo(a)anthracene	10.	U
218-01-9	Chrysene	10.	U
117-81-7	bis(2-Ethylhexyl)phthalate	20.	B
117-84-0	Di-n-octylphthalate	10.	U
205-99-2	Benzo(b)fluoranthene	10.	U
207-08-9	Benzo(k)fluoranthene	10.	U
50-32-8	Benzo(a)pyrene	10.	U
193-39-5	Indeno(1,2,3-cd)pyrene	10.	U
53-70-3	Dibenzo(a,h)anthracene	10.	U
191-24-2	Benzo(g,h,i)perylene	10.	U

(1) - Cannot be separated from Diphenylamine

John J. Molloy, I
Laboratory Direc

Date Reported: 1/9/89

FORM I SV-2 1/87 Rev.

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

FIELD BLANK

Lab Name: H2M LABS INC. Contract: -------

Lab Code: ------- Case No.: ------- SAS No.: ------- SDG No.: MW #1

Matrix: (soil/water) WATER Lab Sample ID: 873241

Sample wt/vol: 1000 (g/mL) ML Lab File ID: >P5324

Level: (low/med) LOW Date Received: 11/28/88

% Moisture: not dec.---- dec. ---- Date Extracted: 11/29/88

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 12/30/88

GPC Cleanup: (Y/N) N pH: 7.2 Dilution Factor: 1.00000

Number TICs found: 2

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	762629	1-Pentene, 4,4-dimethyl- (8C	12.43	12.	J
2.	21964498	1,13-Tetradecadiene (8C19C1)	29.29	38.	JB
3.					
4.					
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28.		Date Reported: 1/9/89			
29.					
30.					

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John J. Mollov, P.E.
Laboratory Director

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FORM I SV-TIC 1/87 Rev.

H2M LABS, INC.
575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122
ENVIRONMENTAL and INDUSTRIAL ANALYTICAL LABORATORY

CASE NARRATIVE FOR PESTICIDE/PCB's

QC Data
All surrogate recoveries were in compliance with the advisory QC limits.

MS and MSD recoveries all were within QC limits, but the relative percent difference exceeded for five of the spiked analytes.

Sample Analysis
One of the raw data files transferred from the integrator to the HP computer could not be accessed. The original integrator printout for this file (confirmatory analysis) for sample MW#1 MSD was submitted instead.

The method blank and most samples show a compound eluting at the retention time of Aldrin on the primary and the confirmatory (capillary) column. On this column combination, a compound elutes at the retention time of Aldrin, which when reanalyzed on an alternate secondary column (packed) does not identify as Aldrin. The traces found for "Aldrin" in the samples of this package were below the CRQL for the blank as well as the samples and were therefore not reanalyzed on the alternate secondary column.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Date Reported: 3/09/89

John J. Molloy, P.E.
Laboratory Director

H2M LABS, INC.
575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122
ENVIRONMENTAL and INDUSTRIAL ANALYTICAL LABORATORY

PESTICIDE ORGANICS ANALYSIS DATA SHEET

MW #1
LEROY CALLENDER

Lab Name: H2M LABS, INC.
Contract: GIBBS & HILL

Matrix: WATER
Sample wt: 1000 mL
Level: LOW
% Moisture: not dec. X dec.
Extraction: SEPF
GPC Cleanup: NONE pH:

Lab Sample ID: 873237
Lab File ID: 314 / 826
Date Received: 11/28/88
Date Extracted: 11/30/88
Date Analyzed: 12/24/88 / 01/08/89
Dilution Factor: 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/L	Q
319-84-6	alpha-BHC	0.05	U
319-85-7	beta-BHC	0.05	U
319-86-8	delta-BHC	0.05	U
58-89-9	gamma-BHC (Lindane)	0.05	U
76-44-8	Heptachlor	0.05	U
309-00-2	Aldrin	0.05	U
1024-57-3	Heptachlor epoxide	0.05	U
959-98-8	Endosulfan I	0.05	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.5	U
53494-70-5	Endrin ketone	0.10	U
5103-71-9	alpha-Chlordane	0.5	U
5103-74-2	gamma-Chlordane	0.5	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.5	U
11104-28-2	Aroclor-1221	0.5	U
11141-16-5	Aroclor-1232	0.5	U
53469-21-9	Aroclor-1242	0.5	U
12672-29-6	Aroclor-1248	0.5	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

Date Reported: 02/26/89

****
****

John J. Molloy, P.E.
Laboratory Director

H2M LABS, INC.
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ENVIRONMENTAL and INDUSTRIAL ANALYTICAL LABORATORY

PESTICIDE ORGANICS ANALYSIS DATA SHEET

MW #2
LEROY CALLENDER

Lab Name: H2M LABS, INC. Contract: GIBBS & HILL

Matrix: WATER Lab Sample ID: 873238
Sample wt: 1000 mL Lab File ID: 315 / 827
Level: LOW Date Received: 11/28/88
% Moisture: not dec. X dec. Date Extracted: 11/30/88
Extraction: SEPF Date Analyzed: 12/24/88 / 01/08/89
GPC Cleanup: NONE pH: Dilution Factor: 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/L	Q
319-84-6	alpha-BHC	0.05	U
319-85-7	beta-BHC	0.05	U
319-86-8	delta-BHC	0.05	U
58-89-9	gamma-BHC (Lindane)	0.05	U
76-44-8	Heptachlor	0.05	U
309-00-2	Aldrin	0.02	B,J
1024-57-3	Heptachlor epoxide	0.05	U
959-98-8	Endosulfan I	0.05	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.5	U
53494-70-5	Endrin ketone	0.10	U
5103-71-9	alpha-Chlordane	0.5	U
5103-74-2	gamma-Chlordane	0.5	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.5	U
11104-28-2	Aroclor-1221	0.5	U
11141-16-5	Aroclor-1232	0.5	U
53469-21-9	Aroclor-1242	0.5	U
12672-29-6	Aroclor-1248	0.5	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

Date Reported: 02/26/89

John J. Molloy, P.E.
Laboratory Director

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ENVIRONMENTAL and INDUSTRIAL ANALYTICAL LABORATORY

PESTICIDE ORGANICS ANALYSIS DATA SHEET

MW #3
LEROY CALLENDER

Lab Name: H2M LABS, INC.
Contract: GIBBS & HILL

Matrix: WATER
Sample wt: 1000 mL
Level: LOW
% Moisture: not dec. X dec.
Extraction: SEPF
GPC Cleanup: NONE pH:

Lab Sample ID: 873239
Lab File ID: 317 / 828
Date Received: 11/28/88
Date Extracted: 11/30/88
Date Analyzed: 12/24/88 / 01/08/89
Dilution Factor: 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/L	Q
319-84-6	alpha-BHC	0.05	U
319-85-7	beta-BHC	0.05	U
319-86-8	delta-BHC	0.05	U
58-89-9	gamma-BHC (Lindane)	0.05	U
76-44-8	Heptachlor	0.05	U
309-00-2	Aldrin	0.03	B,J
1024-57-3	Heptachlor epoxide	0.05	U
959-98-8	Endosulfan I	0.05	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.5	U
53494-70-5	Endrin ketone	0.10	U
5103-71-9	alpha-Chlordane	0.5	U
5103-74-2	gamma-Chlordane	0.5	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.5	U
11104-28-2	Aroclor-1221	0.5	U
11141-16-5	Aroclor-1232	0.5	U
53469-21-9	Aroclor-1242	0.5	U
12672-29-6	Aroclor-1248	0.5	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

Date Reported: 02/26/89

John J. Molloy, P.E.
Laboratory Director

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ENVIRONMENTAL and INDUSTRIAL ANALYTICAL LABORATORY

PESTICIDE ORGANICS ANALYSIS DATA SHEET

MW #4
LEROY CALLENDER

Lab Name: H2M LABS, INC.
Contract: GIBBS & HILL

Matrix: WATER
Sample wt: 1000 mL
Level: LOW
% Moisture: not dec. X dec.
Extraction: SEPF
GPC Cleanup: NONE pH:

Lab Sample ID: 873240
Lab File ID: 318 / 829
Date Received: 11/28/88
Date Extracted: 11/30/88
Date Analyzed: 12/24/88 / 01/08/89
Dilution Factor: 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/L	Q
319-84-6	alpha-BHC	0.05	U
319-85-7	beta-BHC	0.05	U
319-86-8	delta-BHC	0.05	U
58-89-9	gamma-BHC (Lindane)	0.05	U
76-44-8	Heptachlor	0.05	U
309-00-2	Aldrin	0.03	B,J
1024-57-3	Heptachlor epoxide	0.05	U
959-98-8	Endosulfan I	0.05	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.5	U
53494-70-5	Endrin ketone	0.10	U
5103-71-9	alpha-Chlordane	0.5	U
5103-74-2	gamma-Chlordane	0.5	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.5	U
11104-28-2	Aroclor-1221	0.5	U
11141-16-5	Aroclor-1232	0.5	U
53469-21-9	Aroclor-1242	0.5	U
12672-29-6	Aroclor-1248	0.5	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

Date Reported: 02/26/89

John J. Molloy, P.E.
Laboratory Director

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575 Broad Hollow Road, Melville, N.Y. 11747
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ENVIRONMENTAL and INDUSTRIAL ANALYTICAL LABORATORY

PESTICIDE ORGANICS ANALYSIS DATA SHEET

FIELD BLANK
LEROY CALLENDER

Lab Name: H2M LABS, INC.
Contract: GIBBS & HILL

Matrix: WATER
Sample wt: 1000 mL
Level: LOW
% Moisture: not dec. X dec.
Extraction: SEPF
GPC Cleanup: NONE pH:

Lab Sample ID: 873241
Lab File ID: 319 / 830
Date Received: 11/28/88
Date Extracted: 11/30/88
Date Analyzed: 12/24/88 / 01/08/89
Dilution Factor: 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/L	Q
319-84-6	alpha-BHC	0.05	U
319-85-7	beta-BHC	0.05	U
319-86-8	delta-BHC	0.05	U
58-89-9	gamma-BHC (Lindane)	0.05	U
76-44-8	Heptachlor	0.05	U
309-00-2	Aldrin	0.01	B,J
1024-57-3	Heptachlor epoxide	0.05	U
959-98-8	Endosulfan I	0.05	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.5	U
53494-70-5	Endrin ketone	0.10	U
5103-71-9	alpha-Chlordane	0.5	U
5103-74-2	gamma-Chlordane	0.5	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.5	U
11104-28-2	Aroclor-1221	0.5	U
11141-16-5	Aroclor-1232	0.5	U
53469-21-9	Aroclor-1242	0.5	U
12672-29-6	Aroclor-1248	0.5	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

Date Reported: 02/26/89

John J. Molloy, P.E.
Laboratory Director

H2M LABS, INC.
575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122
ENVIRONMENTAL and INDUSTRIAL ANALYTICAL LABORATORY

CASE NARRATIVE FOR METALS

ICP analysis was performed on the ARL 3410. Furnace analysis was performed on the Perkin Elmer Zeeman 5100 and the Varian AA30. Mercury was analyzed via the cold vapor method using the Perkin Elmer 2380. The Perkin Elmer 2380 was also used for flame analysis.

Selenium and arsenic matrix spike recoveries were just under 75%. Results for these elements are flagged with a "N" on Forms I-IN and V-IN (part 1).

Selenium post digestion spike recoveries for samples MW#2, MW#3, and MW#4 were not within 85-115%. Lead post digestion spike recoveries for samples MW#1, MW#2, MW#3, and MW#4 were not within 85-115%. All of the above sample absorbances were less than 50% of the spike absorbances. The selenium and lead results associated with these samples have been reported flagged with a "W" on Form I-IN.

The ICP dilution analysis of sample MW#4L for sodium did not agree within 10% of the original determination. The sodium data for the samples received associated with this serial dilution reported flagged with an "E" on Forms I-IN and IX-IN.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Date Reported: 2/13/89

John J. Molloy, P.E.
Laboratory Director

H2M LABS, INC.

Environmental and Industrial Analytical Laboratory
575 Broad Hollow Road, Melville, NY 11747-5076

(516) 694-3040

QUALIFIERS FOR METALS ANALYSIS

E - The reported value is estimated because of the presence of interference. An explanatory note included in case narrative.

M - Duplicate injection precision not met.

N - Matrix spiked sample recovery not within control limits.

S - The reported value was determined by the Method of Standard Additions (MSA).

+ - Correlation coefficient for the MSA is less than 0.995.

W - Post-digestion spike for Furnace AA analysis is out of control limits (85-115%), while sample absorbance is less than 50% of spike absorbance.

* - Duplicate analysis not within control limits.

Concentration Qualifiers.

B - entered if the reported value is less, than the Contract Required Detection Limit (CRDL) but greater than the Instrument Detection Limit (IDL).

U - entered if the analyte was analyzed for but not detected, less than the IDL.

RECEIVED

APR 06 1989

LeRoy Callender P.C.

H2M GROUP
Melville, NY • Riverhead, NY • Fairfield, NJ

390

H2M LABS, INC.

575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122

ENVIRONMENTAL and INDUSTRIAL ANALYTICAL LABORATORY

CASE NARRATIVE FOR METALS

ICP analysis was performed on the ARL 3410. Furnace analysis was performed on the Perkin Elmer Zeeman 5100 and the Varian AA30. Mercury was analyzed via the cold vapor method using the Perkin Elmer 2380. The Perkin Elmer 2380 was also used for flame analysis.

Selenium and arsenic matrix spike recoveries were just under 75%. Results for these elements are flagged with a "W" on Forms I-IN and V-IN (part 1).

Selenium post digestion spike recoveries for samples MW#2, MW#3, and MW#4 were not within 85-115%. Lead post digestion spike recoveries for samples MW#1, MW#2, MW#3, and MW#4 were not within 85-115%. All of the above sample absorbances were less than 50% of the spike absorbances. The selenium and lead results associated with these samples have been reported flagged with a "W" on Form I-IN.

The ICP dilution analysis of sample MW#4L for sodium did not agree within 10% of the original determination. The sodium data for the samples received associated with this serial dilution are reported flagged with an "E" on Forms I-IN and IV-IN.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Date Reported: 2/13/89

John J. Molloy, P.E.
Laboratory Director

H2M LABS, INC.

575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122

EPA SAMPLE No.

XXXMW1

INORGANIC ANALYSIS DATA SHEET

Lab Name: H2M LABS, INC Contract: GIBBS&HILL

Lab Code: H2MLAB Case No.: SAS No.: SDG No.: GIB01

Matrix (soil/water): WATER Lab Sample ID: 873243

Level (low/med): LOW Date Received: 11/28/88

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	364			P
7440-36-0	Antimony				
7440-38-2	Arsenic				
7440-39-3	Barium	33.0	B		P
7440-41-7	Beryllium	0.30	B		P
7440-43-9	Cadmium				
7440-70-2	Calcium	10900			P
7440-47-3	Chromium	3.0	B		P
7440-48-4	Cobalt	1.6	U		P
7440-50-8	Copper	7.0	B		P
7439-89-6	Iron	446			P
7439-92-1	Lead				
7439-95-4	Magnesium	2500	B		P
7439-96-5	Manganese	61.0			P
7439-97-6	Mercury				
7440-02-0	Nickel	3.4	U		P
7440-09-7	Potassium				
7782-49-2	Selenium				
7440-22-4	Silver				
7440-23-5	Sodium	9920		E	P
7440-28-0	Thallium				
7440-62-2	Vanadium				
7440-66-6	Zinc				
	Cyanide				

Color Before: COLORLESS Clarity Before: CLEAR Texture: --

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

H2M LABS, INC.

575 Broad Hollow Road, Melville, N.Y. 117
(516) 694-3040 FAX: (516) 694-4122

ENVIRONMENTAL and INDUSTRIAL ANALYTICAL LABORATORY

INORGANIC ANALYSIS DATA SHEET

MW#1

Lab Name: H2M LABS, INC. Contract: GIBBS & HILL

Matrix (soil/water): WATER Lab Sample ID: 873243

Level (low/med): LOW Date Received: 11/28/88

% Solids : -- Leroy Callender
U.S. Electroplating

Concentration Units (ug/L or mg/kg dry weight) ug/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				
7440-36-0	Antimony	10	U		F
7440-38-2	Arsenic	5	U	N	F
7440-39-3	Barium				
7440-41-7	Beryllium				
7440-43-9	Cadmium	5	U		A
7440-70-2	Calcium				
7440-47-3	Chromium				
7440-48-4	Cobalt				
7440-50-8	Copper				
7439-89-6	Iron				
7439-92-1	Lead	5	U	W	F
7439-95-4	Magnesium				
7439-96-5	Manganese				
7439-97-6	Mercury	0.2	U		CV
7440-02-0	Nickel				
7440-09-7	Potassium	2600	B		A
7782-49-2	Selenium	5	U	N	F
7440-22-4	Silver	10	U		A
7440-23-5	Sodium				
7440-28-0	Thallium	5	U		F
7440-62-2	Vanadium	50	U		A
7440-66-6	Zinc	20	U		A
	Cyanide	10	U		C

Color Before: COLORLESS Clarity Before: CLEAR Texture: --
Color After: COLORLESS Clarity After: CLEAR Artifacts: NO

Date Reported: 02/13/89

****

John J. Molloy, P.E.
Laboratory Director

H2M LABS, INC. CLP
575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122

EPA SAMPLE N

1

INORGANIC ANALYSIS DATA SHEET

XXXMW2

Lab Name: H2M LABS, INC. Contract: GIBBS&HILL

Lab Code: H2MLAB Case No.: SAS No.: SDG No.: GI50

Matrix (soil/water): WATER Lab Sample ID: 873244

Level (low/med): LOW Date Received: 11/28/88

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	712			P
7440-36-0	Antimony				
7440-38-2	Arsenic				
7440-39-3	Barium	7.0	B		P
7440-41-7	Beryllium	0.30	U		P
7440-43-9	Cadmium				
7440-70-2	Calcium	3700	B		P
7440-47-3	Chromium	17.0			P
7440-48-4	Cobalt	1.6	U		P
7440-50-8	Copper	1.4	U		P
7439-89-6	Iron	638			P
7439-92-1	Lead				
7439-95-4	Magnesium	504	B		P
7439-96-5	Manganese	176			P
7439-97-6	Mercury				
7440-02-0	Nickel	3.4	U		P
7440-09-7	Potassium				
7782-49-2	Selenium				
7440-22-4	Silver				
7440-23-5	Sodium	3540	B	E	P
7440-28-0	Thallium				
7440-62-2	Vanadium				
7440-66-6	Zinc				
	Cyanide				

Color Before: COLORLESS Clarity Before: CLEAR Texture: --

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

H2M LABS, INC.

575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122

ENVIRONMENTAL and INDUSTRIAL ANALYTICAL LABORATORY

INORGANIC ANALYSIS DATA SHEET

MW#2

Lab Name: H2M LABS, INC. Contract: GIBBS & HILL

Matrix (soil/water): WATER Lab Sample ID: 873244

Level (low/med): LOW Date Received: 11/28/88

% Solids : -- Leroy Callender
U.S. Electroplating

Concentration Units (ug/L or mg/kg dry weight) ug/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				
7440-36-0	Antimony	10	U		F
7440-38-2	Arsenic	5	U		F
7440-39-3	Barium				
7440-41-7	Beryllium				
7440-43-9	Cadmium	5	U		A
7440-70-2	Calcium				
7440-47-3	Chromium				
7440-48-4	Cobalt				
7440-50-8	Copper				
7439-89-6	Iron				
7439-92-1	Lead	5	U	W	F
7439-95-4	Magnesium				
7439-96-5	Manganese				
7439-97-6	Mercury	0.2	U		CV
7440-02-0	Nickel				
7440-09-7	Potassium	1800	B		A
7782-49-2	Selenium	5	U	NW	F
7440-22-4	Silver	10	U		A
7440-23-5	Sodium				
7440-28-0	Thallium	5	U		F
7440-62-2	Vanadium	50	U		A
7440-66-6	Zinc	20	U		A
	Cyanide	10	U		C

Color Before: COLORLESS Clarity Before: CLEAR Texture: --
Color After: COLORLESS Clarity After: CLEAR Artifacts: NO

Date Reported: 02/13/89

****

John J. Molloy, P.E.
Laboratory Director

H2M LABS, INC.

575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122

EPA SAMPLE NO.

INORGANIC ANALYSIS DATA SHEET

XXXMW3

Lab Name: H2M LABS, INC. Contract: GIBBS&HILL

Lab Code: H2MLAB Case No.: SAS No.: SDG No.: GIB

Matrix (soil/water): WATER Lab Sample ID: 873245

Level (low/med): LOW Date Received: 11/28/86

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	483			P
7440-36-0	Antimony				
7440-38-2	Arsenic				
7440-39-3	Barium	37.0	B		P
7440-41-7	Beryllium	0.30	U		P
7440-43-9	Cadmium				
7440-70-2	Calcium	16500			P
7440-47-3	Chromium	272			P
7440-48-4	Cobalt	1.6	U		P
7440-50-8	Copper	5.0	B		P
7439-89-6	Iron	706			P
7439-92-1	Lead				
7439-95-4	Magnesium	4160	B		P
7439-96-5	Manganese	141			P
7439-97-6	Mercury				
7440-02-0	Nickel	3.4	U		P
7440-09-7	Potassium				
7782-49-2	Selenium				
7440-22-4	Silver				
7440-23-5	Sodium	15700		E	P
7440-28-0	Thallium				
7440-62-2	Vanadium				
7440-66-6	Zinc				
	Cyanide				

Color Before: COLORLESS Clarity Before: CLEAR Texture: --

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

H2M LABS, INC.

575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122

ENVIRONMENTAL and INDUSTRIAL ANALYTICAL LABORATORY

INORGANIC ANALYSIS DATA SHEET

MW#3

Lab Name: H2M LABS, INC. Contract: GIBBS & HILL

Matrix (soil/water): WATER Lab Sample ID: 873245

Level (low/med): LOW Date Received: 11/28/88

% Solids : -- Leroy Callender
U.S. Electroplating

Concentration Units (ug/L or mg/kg dry weight) ug/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				
7440-36-0	Antimony	10	U		F
7440-38-2	Arsenic	5	U		F
7440-39-3	Barium				
7440-41-7	Beryllium				
7440-43-9	Cadmium	121			A
7440-70-2	Calcium				
7440-47-3	Chromium				
7440-48-4	Cobalt				
7440-50-8	Copper				
7439-89-6	Iron				
7439-92-1	Lead	5	U	W	F
7439-95-4	Magnesium				
7439-96-5	Manganese				
7439-97-6	Mercury	0.2	U		CV
7440-02-0	Nickel				
7440-09-7	Potassium	2300	B		A
7782-49-2	Selenium	5	U	NW	F
7440-22-4	Silver	20	U		A
7440-23-5	Sodium				
7440-28-0	Thallium	5	U		F
7440-62-2	Vanadium	50	U		A
7440-66-6	Zinc	20	U		A
	Cyanide	10	U		C

Color Before: COLORLESS Clarity Before: CLEAR Texture: --
Color After: COLORLESS Clarity After: CLEAR Artifacts: NO

Date Reported: 02/13/89

John J. Molloy, P.E.
Laboratory Director

H2M LABS, INC.

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EPA SAMPLE No.

INORGANIC ANALYSIS DATA SHEET

XXXMW4

Lab Name: H2M LABS, INC. Contract: GIBBS&HILL

Lab Code: H2MLAB Case No.: SAS No.: SDG No.: GIBO

Matrix (soil/water): WATER Lab Sample ID: 873246

Level (low/med): LOW Date Received: 11/28/88

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	368			P
7440-36-0	Antimony				
7440-38-2	Arsenic				
7440-39-3	Barium	37.6	B		P
7440-41-7	Beryllium	0.30	U		P
7440-43-9	Cadmium				
7440-70-2	Calcium	16700			P
7440-47-3	Chromium	280			P
7440-48-4	Cobalt	1.6	U		P
7440-50-8	Copper	2.0	B		P
7439-89-6	Iron	500			P
7439-92-1	Lead				
7439-95-4	Magnesium	4170	B		P
7439-96-5	Manganese	124			P
7439-97-6	Mercury				
7440-02-0	Nickel	3.4	U		P
7440-09-7	Potassium				
7782-49-2	Selenium				
7440-22-4	Silver				
7440-23-5	Sodium	15300	E		P
7440-28-0	Thallium				
7440-62-2	Vanadium				
7440-66-6	Zinc				
	Cyanide				

Color Before: COLORLESS Clarity Before: CLEAR Texture: --

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

H2M LABS, INC.

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ENVIRONMENTAL and INDUSTRIAL ANALYTICAL LABORATORY

INORGANIC ANALYSIS DATA SHEET

MW#4

Lab Name: H2M LABS, INC. Contract: GIBBS & HILL

Matrix (soil/water): WATER Lab Sample ID: 873246

Level (low/med): LOW Date Received: 11/28/88

% Solids : -- Leroy Callender
U.S. Electroplating

Concentration Units (ug/L or mg/kg dry weight) ug/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				
7440-36-0	Antimony	10	U		F
7440-38-2	Arsenic	5	U		F
7440-39-3	Barium				
7440-41-7	Beryllium				
7440-43-9	Cadmium	123			A
7440-70-2	Calcium				
7440-47-3	Chromium				
7440-48-4	Cobalt				
7440-50-8	Copper				
7439-89-6	Iron				
7439-92-1	Lead	5	U	W	F
7439-95-4	Magnesium				
7439-96-5	Manganese				
7439-97-6	Mercury	0.2	U		CV
7440-02-0	Nickel				
7440-09-7	Potassium	2300	B		A
7782-49-2	Selenium	5	U	NW	F
7440-22-4	Silver	10	U		A
7440-23-5	Sodium				
7440-28-0	Thallium	5	U		F
7440-62-2	Vanadium	50	U		A
7440-66-6	Zinc	20	U		A
	Cyanide	10	U		C

Color Before: COLORLESS Clarity Before: CLEAR Texture: --
Color After: COLORLESS Clarity After: CLEAR Artifacts: NO

Date Reported: 02/13/89

John J. Molloy, P.E.
Laboratory Director

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CLP

EPA SAMPLE NO.

INORGANIC ANALYSIS DATA SHEET

FLDBLK

Lab Name: H2M LABS, INC. Contract: GIBBS&HILL

Lab Code: H2MLAB Case No.: SAS No.: SDG No.: GIB0

Matrix (soil/water): WATER Lab Sample ID: 873247

Level (low/med): LOW Date Received: 11/29/88

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	68.6	B		P
7440-36-0	Antimony				
7440-38-2	Arsenic				
7440-39-3	Barium	0.40	U		P
7440-41-7	Beryllium	0.20	U		P
7440-43-9	Cadmium				
7440-70-2	Calcium	89.0	B		P
7440-47-3	Chromium	2.9	U		P
7440-48-4	Cobalt	1.6	U		P
7440-50-8	Copper	1.4	U		P
7439-89-6	Iron	35.0	B		P
7439-92-1	Lead				
7439-95-4	Magnesium	9.2	U		P
7439-96-5	Manganese	0.30	U		P
7439-97-6	Mercury				
7440-02-0	Nickel	3.4	U		P
7440-09-7	Potassium				
7782-49-2	Selenium				
7440-22-4	Silver				
7440-23-5	Sodium	21.0	B E		P
7440-28-0	Thallium				
7440-62-2	Vanadium				
7440-66-6	Zinc				
	Cyanide				

Color Before: COLORLESS Clarity Before: CLEAR Texture: --

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

H2M LABS, INC.
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ENVIRONMENTAL and INDUSTRIAL ANALYTICAL LABORATORY

INORGANIC ANALYSIS DATA SHEET

FIELD BLANK

Lab Name: H2M LABS, INC. Contract: GIBBS & HILL

Matrix (soil/water): WATER Lab Sample ID: 873247

Level (low/med): LOW Date Received: 11/28/88

Leroy Callender
U.S. Electroplating

% Solids : --

Concentration Units (ug/L or mg/kg dry weight) ug/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				
7440-36-0	Antimony	10	U		F
7440-38-2	Arsenic	5	U		F
7440-39-3	Barium				
7440-41-7	Beryllium				
7440-43-9	Cadmium	5	U		A
7440-70-2	Calcium				
7440-47-3	Chromium				
7440-48-4	Cobalt				
7440-50-8	Copper				
7439-89-6	Iron				
7439-92-1	Lead	5	U		F
7439-95-4	Magnesium				
7439-96-5	Manganese				
7439-97-6	Mercury	0.2	U		CV
7440-02-0	Nickel				
7440-09-7	Potassium	200	U		A
7782-49-2	Selenium	5	U	N	F
7440-22-4	Silver	10	U		A
7440-23-5	Sodium				
7440-28-0	Thallium	5	U		F
7440-62-2	Vanadium	50	U		A
7440-66-6	Zinc	20	U		A
	Cyanide	10	U		C

Color Before: COLORLESS Clarity Before: CLEAR Texture: --
Color After: COLORLESS Clarity After: CLEAR Artifacts: NO

Date Reported: 02/13/89

John J. Molloy, P.E.
Laboratory Director

H2M LABS, INC.
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ENVIRONMENTAL and INDUSTRIAL ANALYTICAL LABORATORY

CASE NARRATIVE FOR PURGEABLE ORGANICS

QC Data
All QC and calibration checks were in compliance with the analytical protocol.

Sample Analysis
Even though no TIC compounds were found in the instrument blank analyzed with these samples, it is believed that the three unknown compounds found in all samples between 12 and 13 minutes are introduced during analysis. Blanks from other days have shown the same contamination pattern (compare documentation submitted in the Raw QC Data package after VBLK 12/09/88).

The dimethyldisulfide found in LD-1 has not been found in other instrument blanks.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Date Reported: 3/17/89

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John J. Molloy, P.E.
Laboratory Director

H2M LABS, INC.
575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122
ENVIRONMENTAL and INDUSTRIAL ANALYTICAL LABORATORY

TARGETED COMPOUND LIST - VOLATILE ORGANIC

Lab Name: H2M Labs, Inc. Lab Sample ID: 873703 Sample No. SD-1
Lab Code:--- Case No.----- SAS No.: ------- SDG No.:---- Hr. 1315
Matrix: Soil Lab File ID: PU9510
Sample Wt. 4.0130g Date Received: 12/7/88 G & H
Level: Low Date Analyzed: 12/9/88
% Moisture: not dec: 33 Dilution Factor: 1
Column: Pack Leroy Calledender, P.C.
U.S. Electroplating Soil Samples

C.A.S. Number	Compound	Concentration	Unit: ug/kg
74-87-3	Chloromethane	18	U
74-83-9	Bromomethane	18	U
75-01-4	Vinyl Chloride	18	U
75-00-3	Chloroethane	18	U
75-09-2	Methylene Chloride	130	B
67-64-1	Acetone	46	B
75-15-0	Carbon Disulfide	9	U
75-35-4	1,1-Dichloroethene	8	J
75-34-3	1,1-Dichloroethane	9	U
540-59-0	1,2-Dichloroethene (total)	9	U
67-66-3	Chloroform	3	J
107-02-2	1,2-Dichloroethane	9	U
78-93-3	2-Butanone	4	JB
71-55-6	1,1,1-Trichloroethane	7	J
56-23-5	Carbon Tetrachloride	9	U
108-05-4	Vinyl Acetate	18	U
75-27-4	Bromodichloromethane	9	U
78-87-5	1,2-Dichloropropane	9	U
10061-02-6	cis-1,3-Dichloropropene	9	U
79-01-6	Trichloroethene	23	
124-48-1	Dibromochloromethane	9	U
79-00-5	1,1,2-Trichloroethane	9	U
71-43-2	Benzene	4	J
10061-01-5	trans-1,3-Dichloropropene	9	U
75-25-2	Bromoform	9	U
108-10-1	4-Methyl-2-Pentanone	18	
591-78-6	2-Hexanone	18	U
127-18-4	Tetrachloroethene	15	
79-34-5	1,1,2,2,Tetrachloroethane	9	U
108-88-3	Toluene	10	
108-90-7	Chlorobenzene	3	J
100-41-4	Ethylbenzene	9	U
100-42-5	Styrene	9	U
1330-20-7	Xylene (total)	9	U

Date Reported: 1/23/89

John J. Molloy, P.E.
Laboratory Director

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H2M LABS, INC.
575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122
ENVIRONMENTAL and INDUSTRIAL ANALYTICAL LABORATORY

Lab Name: H2M Labs, Inc. Lab Sample ID: 873703 Sample No. SD-1
Lab Code:--- Case No.----- SAS No.: ------- SDG No.:----
Matrix: Soil Lab File ID: PU9510
Sample Wt. 4.0130g Date Received: 12/7/88 G & H
Level: Low Date Analyzed: 12/9/88
% Moisture: not dec: 33 Dilution Factor: 1
Column: Pack

Number TICs found: 3 Concentration Unit: ug/kg

CAS Number	Compound Name	RT	Est. Conc.	Q
	Unknown alkene	12:12	64	J
	Unknown	12:42	120	J
	Unknown alkene	12:54	79	J

Date Reported: 1/23/89

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John J. Molloy, P.E.
Laboratory Director

H2M LABS, INC.
575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122
ENVIRONMENTAL and INDUSTRIAL ANALYTICAL LABORATORY

TARGETED COMPOUND LIST - VOLATILE ORGANIC

Lab Name: H2M Labs, Inc. Lab Sample ID: 873704 Sample No. SD-2
Lab Code:--- Case No.----- SAS No.: ------- SDG No.:---- Hr. 1330
Matrix: Soil Lab File ID: PU9513
Sample Wt. 4.59g Date Received: 12/7/88 G & H
Level: Low Date Analyzed: 12/10/88
% Moisture: not dec: 29 Dilution Factor: 1
Column: Pack Leroy Calledender, P.C.
U.S. Electroplating Soil Samples

C.A.S. Number	Compound	Concentration	Unit: ug/kg
74-87-3	Chloromethane	15	U
74-83-9	Bromomethane	15	U
75-01-4	Vinyl Chloride	15	U
75-00-3	Chloroethane	15	U
75-09-2	Methylene Chloride	87	B
67-64-1	Acetone	45	B
75-15-0	Carbon Disulfide	8	U
75-35-4	1,1-Dichloroethene	5	J
75-34-3	1,1-Dichloroethane	8	U
540-59-0	1,2-Dichloroethene (total)	8	U
67-66-3	Chloroform	10	
107-02-2	1,2-Dichloroethane	8	U
78-93-3	2-Butanone	5	JB
71-55-6	1,1,1-Trichloroethane	6	J
56-23-5	Carbon Tetrachloride	8	U
108-05-4	Vinyl Acetate	15	U
75-27-4	Bromodichloromethane	8	U
78-87-5	1,2-Dichloropropane	8	U
10061-02-6	cis-1,3-Dichloropropene	8	U
79-01-6	Trichloroethene	11	
124-48-1	Dibromochloromethane	8	U
79-00-5	1,1,2-Trichloroethane	8	U
71-43-2	Benzene	2	J
10061-01-5	trans-1,3-Dichloropropene	8	U
75-25-2	Bromoform	8	U
108-10-1	4-Methyl-2-Pentanone	10	J
591-78-6	2-Hexanone	10	J
127-18-4	Tetrachloroethene	10	
79-34-5	1,1,2,2,Tetrachloroethane	8	U
108-88-3	Toluene	5	J
108-90-7	Chlorobenzene	8	U
100-41-4	Ethylbenzene	8	U
100-42-5	Styrene	8	U
1330-20-7	Xylene (total)	8	U

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Date Reported: 1/23/89

John J. Molloy, P.E.
Laboratory Director

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397

H2M LABS, INC.
575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122
ENVIRONMENTAL and INDUSTRIAL ANALYTICAL LABORATORY

Lab Name: H2M Labs, Inc. Lab Sample ID: 873704 Sample No. SD-2
Lab Code:--- Case No.----- SAS No.: ------- SDG No.:----
Matrix: Soil Lab File ID: PU9513
Sample Wt. 4.59g Date Received: 12/7/88 G & H
Level: Low Date Analyzed: 12/10/88
% Moisture: not dec: 29 Dilution Factor: 1
Column: Pack

Number TICs found: 3 Concentration Unit: ug/kg

CAS Number	Compound Name	RT	Est. Conc.	Q
	Unknown alkene	12:09	54	J
	Unknown	12:39	96	J
	Unknown	12:51	66	J

Date Reported: 1/23/89

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*
* Molloy
****
John J. Molloy, P.E.
Laboratory Director

H2M LABS, INC.
575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122
ENVIRONMENTAL and INDUSTRIAL ANALYTICAL LABORATORY

TARGETED COMPOUND LIST - VOLATILE ORGANIC

Lab Name: H2M Labs, Inc. Lab Sample ID: 873705 Sample No. LD-1
Lab Code:--- Case No.----- SAS No.: ------- SDG No.:---- Hr. 1305
Matrix: Soil Lab File ID: PU9514
Sample Wt. 5.180g Date Received: 12/7/88 G & H
Level: Low Date Analyzed: 12/10/88
% Moisture: not dec: 66 Dilution Factor: 1
Column: Pack Leroy Calledender, P.C.
U.S. Electroplating Soil Samples

C.A.S. Number	Compound	Concentration	Unit: ug/kg
74-87-3	Chloromethane	28	U
74-83-9	Bromomethane	28	U
75-01-4	Vinyl Chloride	28	U
75-00-3	Chloroethane	28	U
75-09-2	Methylene Chloride	83	B
67-64-1	Acetone	28	U
75-15-0	Carbon Disulfide	14	U
75-35-4	1,1-Dichloroethene	11	J
75-34-3	1,1-Dichloroethane	5	J
540-59-0	1,2-Dichloroethene (total)	14	U
67-66-3	Chloroform	10	J
107-02-2	1,2-Dichloroethane	14	U
78-93-3	2-Butanone	28	U
71-55-6	1,1,1-Trichloroethane	9	J
56-23-5	Carbon Tetrachloride	14	U
108-05-4	Vinyl Acetate	28	U
75-27-4	Bromodichloromethane	14	U
78-87-5	1,2-Dichloropropane	14	U
10061-02-6	cis-1,3-Dichloropropene	14	U
79-01-6	Trichloroethene	17	
124-48-1	Dibromochloromethane	14	U
79-00-5	1,1,2-Trichloroethane	14	U
71-43-2	Benzene	14	U
10061-01-5	trans-1,3-Dichloropropene	14	U
75-25-2	Bromoform	14	U
108-10-1	4-Methyl-2-Pentanone	28	U
591-78-6	2-Hexanone	28	U
127-18-4	Tetrachloroethene	16	
79-34-5	1,1,2,2,Tetrachloroethane	14	U
108-88-3	Toluene	5	J
108-90-7	Chlorobenzene	14	U
100-41-4	Ethylbenzene	14	U
100-42-5	Styrene	14	U
1330-20-7	Xylene (total)	14	U

Date Reported: 1/23/89

John J. Molloy, P.E.
Laboratory Director

H2M LABS, INC.
575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122
ENVIRONMENTAL and INDUSTRIAL ANALYTICAL LABORATORY

Lab Name: H2M Labs, Inc. Lab Sample ID: 873705 Sample No. LD-1
Lab Code:--- Case No.----- SAS No.: ------- SDG No.:----
Matrix: Soil Lab File ID: PU9514
Sample Wt. 5.180g Date Received: 12/7/88 G & H
Level: Low Date Analyzed: 12/10/88
% Moisture: not dec: 66 Dilution Factor: 1
Column: Pack

Number TICs found: 3 Concentration Unit: ug/kg

CAS Number	Compound Name	RT	Est. Conc.	Q
	Unknown alkene	12:09	62	J
	Dimethyl disulfide	12:30	630	J
	Unknown alkene	12:51	71	J

Date Reported: 1/23/89

John J. Molloy, P.E.
Laboratory Director

H2M LABS, INC.
575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122
ENVIRONMENTAL and INDUSTRIAL ANALYTICAL LABORATORY

CASE NARRATIVE FOR BASE NEUTRAL/ACID EXTRACTABLES

All quality control and calibration requirements for this data package were met with the following exceptions:

The recovery of 2,4,6-Tribromophenol exceeded the allowable limits for sample SD-2. Not all QC requirements were met for SD-1 MS/MSD.

The soil method blank was not subjected to GPC.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

John J. Molloy, P.E.
Laboratory Director

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H2M LABS, INC.

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(516) 694-3040 FAX: (516) 694-4122

IB

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SD-1

Lab Name: H2M LABS INC. Contract: -----

Lab Code: ----- Case No.: ----- SAS No.: ----- SDG No.: SD-1

Matrix: (soil/water) SOIL Lab Sample ID: 873703

Sample wt/vol: 30.0585(g/mL) G Lab File ID: >P5385

Level: (low/med) LOW Date Received: 12/07/88

% Moisture: not dec.66 dec. __ Date Extracted: 12/09/88

Extraction: (Sepf/Cont/Sonc) SONC Date Analyzed: 1/11/89

GPC Cleanup: (Y/N) N pH:6.6 Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
108-95-2	Phenol	680.	
111-44-4	bis(2-Chloroethyl)Ether	250.	U
95-57-8	2-Chlorophenol	250.	U
541-73-1	1,3-Dichlorobenzene	250.	U
106-46-7	1,4-Dichlorobenzene	250.	U
100-51-6	Benzyl alcohol	250.	U
95-50-1	1,2-Dichlorobenzene	250.	U
95-48-7	2-Methylphenol	250.	U
39638-32-9	bis(2-chloroisopropyl)ether	250.	U
106-44-5	4-Methylphenol	250.	U
621-64-7	N-Nitroso-Di-n-propylamine	250.	U
67-72-1	Hexachloroethane	250.	U
98-95-3	Nitrobenzene	250.	U
78-59-1	Isophorone	250.	U
88-75-5	2-Nitrophenol	250.	U
105-67-9	2,4-Dimethylphenol	250.	U
65-85-0	Benzoic acid	~~1000~~ 1200	U
111-91-1	bis(2-Chloroethoxy)methane	250.	U
120-83-2	2,4-Dichlorophenol	250.	U
120-82-1	1,2,4-Trichlorobenzene	250.	U
91-20-3	Naphthalene	250.	U
106-47-8	4-Chloroaniline	250.	U
87-68-3	Hexachlorobutadiene	250.	U
59-50-7	4-Chloro-3-methylphenol	250.	U
91-57-6	2-Methylnaphthalene	250.	U
77-47-4	Hexachlorocyclopentadiene	250.	U
88-06-2	2,4,6-Trichlorophenol	250.	U
95-95-4	2,4,5-Trichlorophenol	~~1000~~ 1200	U
91-58-7	2-Chloronaphthalene	250.	U
88-74-4	2-Nitroaniline	~~1000~~ 1200	U
131-11-3	Dimethylphthalate	69.	J
208-96-8	Acenaphthylene	250.	U
606-20-2	2,6-Dinitrotoluene	250.	U

John J. Mullin, P
Laboratory Direc

Date Reported: 1/24/89

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H2M LABS, INC.
575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SD-1

Lab Name: H2M LABS INC. Contract: -----

Code: ----- Case No.: ----- SAS No.: ----- SDG No.: SD-1

Matrix: (soil/water) SOIL Lab Sample ID: 873703

Sample wt/vol: 30.0585(g/mL) G Lab File ID: >P5385

Level: (low/med) LOW Date Received: 12/07/88

% Moisture: not dec.66 dec. __ Date Extracted: 12/09/88

Extraction: (Sepf/Cont/Sonc) SONC Date Analyzed: 1/11/89

GPC Cleanup: (Y/N) N pH: 6.6 Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
99-09-2	3-Nitroaniline	~~1000~~ 1200	U
83-32-9	Acenaphthene	250.	U
51-28-5	2,4-Dinitrophenol	~~1000~~ 1200	U
100-02-7	4-Nitrophenol	~~1000~~ 1200	U
132-64-9	Dibenzofuran	250.	U
121-14-2	2,4-Dinitrotoluene	250.	U
84-66-2	Diethylphthalate	250.	U
7005-72-3	4-Chlorophenyl-phenylether	250.	U
86-73-7	Fluorene	250.	U
100-01-6	4-Nitroaniline	~~1000~~ 1200	U
534-52-1	4,6-Dinitro-2-methylphenol	~~1000~~ 1200	U
86-30-6	N-Nitrosodiphenylamine (1)	250.	U
101-55-3	4-Bromophenyl-phenylether	250.	U
118-74-1	Hexachlorobenzene	250.	U
87-86-5	Pentachlorophenol	~~1000~~ 1200	U
85-01-8	Phenanthrene	300.	
120-12-7	Anthracene	250.	U
84-74-2	Di-n-butylphthalate	330.	
206-44-0	Fluoranthene	420.	
129-00-0	Pyrene	900.	
85-68-7	Butylbenzylphthalate	910.	
91-94-1	3,3'-Dichlorobenzidine	500.	U
56-55-3	Benzo(a)anthracene	250.	U
218-01-9	Chrysene	410.	
117-81-7	bis(2-Ethylhexyl)phthalate	5900.	B
117-84-0	Di-n-octylphthalate	240.	J
205-99-2	Benzo(b)fluoranthene	220.	J*
207-08-9	Benzo(k)fluoranthene	170.	J*
50-32-8	Benzo(a)pyrene	250.	U
193-39-5	Indeno(1,2,3-cd)pyrene	250.	U
53-70-3	Dibenzo(a,h)anthracene	250.	U
191-24-2	Benzo(g,h,i)perylene	250.	U

(1) - Cannot be separated from Diphenylamine

Date Reported: 1/24/89

John J. Molloy, P.E.
Laboratory Director

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SD-1

Lab Name: H2M LABS INC. Contract: -----

Lab Code: ----- Case No.: ----- SAS No.: ----- SDG No.: SD-1

Matrix: (soil/water) SOIL Lab Sample ID: 873703

Sample wt/vol: 30.0585(g/mL) G Lab File ID: >P5385

Level: (low/med) LOW Date Received: 12/07/88

% Moisture: not dec.33 dec. __ Date Extracted: 12/09/88

Extraction: (Sepf/Cont/Sonc) SONC Date Analyzed: 1/11/89

GPC Cleanup: (Y/N) N pH: 6.6 Dilution Factor: 1.00000

Number TICs found: 20

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		Unknown	5.21	1600.	J
2.	141797	3-Penten-2-one, 4-methyl- (8	6.37	1100.	JBA
3.		Unknown	6.80	660.	J
4.		Unknown	7.11	730.	J
5.	~~75912~~	~~Hydroperoxide, 1,1-dimethyle~~ Unknown	7.93	24000.	JB
6.	3074713	Heptane, 2,3-dimethyl- (8CI9	8.07	720.	JB
7.	2213232	Heptane, 2,4-dimethyl- (8CI9	8.31	1900.	JB
8.	540841	Pentane, 2,2,4-trimethyl- (8	8.52	1900.	JB
9.	98828	Benzene, (1-methylethyl)- (9	9.84	560.	JB
10.	100527	Benzaldehyde (ACN)(DOT)(8CI9	10.72	1100.	J
11.	98862	Ethanone, 1-phenyl- (9CI)	13.23	530.	J
12.	54832836	1H-Indene, octahydro-2,2,4,4	20.89	690.	J
13.		Unknown	21.46	440.	J
14.		Unknown	21.57	300.	J
15.		Unknown	22.27	350.	J
16.		Unknown	22.47	950.	J
17.		Unknown	23.01	320.	J
18.		Unknown	24.47	830.	J
19.	61141728	Dodecane, 4,6-dimethyl- (9CI	24.59	2800.	J
20.		Unknown	41.13	460.	J
21.					
22.					
23.					
24.					
25.					
26.		Date Reported: 1/24/89	**********		
27.			*	*	
28.			*	*	
29.			**********		
30.			John J. Molloy, P.E.		
			Laboratory Director		

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H2M LABS, INC.

575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SD-2

Lab Name: H2M LABS INC. Contract: -----

Code: ----- Case No.: ----- SAS No.: ----- SDG No.: SD-1

Matrix: (soil/water) SOIL Lab Sample ID: 873704

Sample wt/vol: 30.0318(g/mL) G Lab File ID: >P5388

Level: (low/med) LOW Date Received: 12/07/88

% Moisture: not dec.29 dec. __ Date Extracted: 12/09/88

Extraction: (Sepf/Cont/Sonc) SONC Date Analyzed: 1/11/89

GPC Cleanup: (Y/N) ~~N~~ Y pH: 7.3 Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
108-95-2	Phenol	390.	
111-44-4	bis(2-Chloroethyl)Ether	230.	U
95-57-8	2-Chlorophenol	230.	U
541-73-1	1,3-Dichlorobenzene	230.	U
106-46-7	1,4-Dichlorobenzene	230.	U
100-51-6	Benzyl alcohol	230.	U
95-50-1	1,2-Dichlorobenzene	230.	U
95-48-7	2-Methylphenol	230.	U
39638-32-9	bis(2-chloroisopropyl)ether	230.	U
106-44-5	4-Methylphenol	230.	U
621-64-7	N-Nitroso-Di-n-propylamine	230.	U
67-72-1	Hexachloroethane	230.	U
98-95-3	Nitrobenzene	230.	U
78-59-1	Isophorone	230.	U
88-75-5	2-Nitrophenol	230.	U
105-67-9	2,4-Dimethylphenol	230.	U
65-85-0	Benzoic acid	1200.	U
111-91-1	bis(2-Chloroethoxy)methane	230.	U
120-83-2	2,4-Dichlorophenol	230.	U
120-82-1	1,2,4-Trichlorobenzene	230.	U
91-20-3	Naphthalene	230.	U
106-47-8	4-Chloroaniline	230.	U
87-68-3	Hexachlorobutadiene	230.	U
59-50-7	4-Chloro-3-methylphenol	230.	U
91-57-6	2-Methylnaphthalene	230.	U
77-47-4	Hexachlorocyclopentadiene	230.	U
88-06-2	2,4,6-Trichlorophenol	230.	U
95-95-4	2,4,5-Trichlorophenol	1200.	U
91-58-7	2-Chloronaphthalene	230.	U
88-74-4	2-Nitroaniline	1200.	U
131-11-3	Dimethylphthalate	230.	U
208-96-8	Acenaphthylene	230.	U
606-20-2	2,6-Dinitrotoluene	230.	U

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* *
**** **** **** **** ***

John J. Mollov, P.E.
Laboratory Director

Date Reported: 1/24/89

H2M LABS, INC.

575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SD-2

Lab Name: H2M LABS INC. Contract: -----

Lab Code: ----- Case No.: ----- SAS No.: ----- SDG No.: SD-1

Matrix: (soil/water) SOIL Lab Sample ID: 873704

Sample wt/vol: 30.0318(g/mL) G Lab File ID: >P5388

Level: (low/med) LOW Date Received: 12/07/88

% Moisture: not dec.29 dec. __ Date Extracted: 12/09/88

Extraction: (Sepf/Cont/Sonc) SONC Date Analyzed: 1/11/89

GPC Cleanup: (Y/N) ~~N~~ Y pH: 7.3 Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
99-09-2	3-Nitroaniline	1200.	U
83-32-9	Acenaphthene	230.	U
51-28-5	2,4-Dinitrophenol	1200.	U
100-02-7	4-Nitrophenol	1200.	U
132-64-9	Dibenzofuran	230.	U
121-14-2	2,4-Dinitrotoluene	230.	U
84-66-2	Diethylphthalate	230.	U
7005-72-3	4-Chlorophenyl-phenylether	230.	U
86-73-7	Fluorene	230.	U
100-01-6	4-Nitroaniline	1200.	U
534-52-1	4,6-Dinitro-2-methylphenol	1200.	U
86-30-6	N-Nitrosodiphenylamine (1)	230.	U
101-55-3	4-Bromophenyl-phenylether	230.	U
118-74-1	Hexachlorobenzene	230.	U
87-86-5	Pentachlorophenol	1200.	U
85-01-8	Phenanthrene	420.	
120-12-7	Anthracene	82.	J
84-74-2	Di-n-butylphthalate	260.	
206-44-0	Fluoranthene	450.	
129-00-0	Pyrene	370.	
85-68-7	Butylbenzylphthalate	160.	J
91-94-1	3,3'-Dichlorobenzidine	460.	U
56-55-3	Benzo(a)anthracene	120.	J
218-01-9	Chrysene	180.	J
117-81-7	bis(2-Ethylhexyl)phthalate	1100.	B
117-84-0	Di-n-octylphthalate	69.	J
205-99-2	Benzo(b)fluoranthene	150.	J
207-08-9	Benzo(k)fluoranthene	68.	J
50-32-8	Benzo(a)pyrene	230.	U
193-39-5	Indeno(1,2,3-cd)pyrene	230.	U
53-70-3	Dibenzo(a,h)anthracene	230.	U
191-24-2	Benzo(g,h,i)perylene	230.	U

(1) - Cannot be separated from Diphenylamine

John J. Molloy, P.
Laboratory Director

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Date Reported: 1/24/89

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SD-2

Lab Name: H2M LABS INC. Contract: -----

Lab Code: ----- Case No.: ----- SAS No.: ----- SDG No.: SD-1

Matrix: (soil/water) SOIL Lab Sample ID: 873704

Sample wt/vol: 30.0318(g/mL) G Lab File ID: >P5388

Level: (low/med) LOW Date Received: 12/07/88

% Moisture: not dec.29 dec. __ Date Extracted: 12/09/88

Extraction: (Sepf/Cont/Sonc) SONC Date Analyzed: 1/11/89

GPC Cleanup: (Y/N) ~~N~~ Y pH: 7.3 Dilution Factor: 1.00000

Number TICs found: 20

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	108883	Benzene, methyl- (9CI)	5.43	470.	J
2.	141797	3-Penten-2-one, 4-methyl- (8	6.43	3200.	JBA
3.		Unknown	6.85	660.	J
4.		Unknown	7.12	690.	J
5.	~~75912~~	~~Hydroperoxide, 1,1-dimethyle~~ Unknown	7.96	24000.	JB
6.	3074713	Heptane, 2,3-dimethyl- (8CI9	8.08	660.	JB
7.	922281	Heptane, 3,4-dimethyl- (8CI9	8.16	470.	JB
8.	2213232	Heptane, 2,4-dimethyl- (8CI9	8.32	1700.	JB
9.	540841	Pentane, 2,2,4-trimethyl- (8	8.53	1800.	JB
10.	31038069	Cyclopentane, 1,1-dichloro-	9.51	1500.	J
11.	98828	Benzene, (1-methylethyl)- (9	9.85	620.	JB
12.		Unknown	10.02	590.	JB
13.	100527	Benzaldehyde (ACN)(DOT)(8CI9	10.75	2000.	J
14.	10141227	Propanal, 2,3-dichloro-2-met	12.47	500.	J
15.	98862	Ethanone, 1-phenyl- (9CI)	13.26	910.	J
16.		Unknown	16.99	440.	J
17.	97789	Glycine, N-methyl-N-(1-oxodo	22.74	1200.	J
18.		Unknown	24.89	1500.	J
19.	3943951	2-Propenoic acid, 3-(3-hydro	25.42	2800.	J
20.		Unknown	33.93	850.	J
21.					
22.					
23.					
24.					
25.					
26.					
27.		Date Reported: 1/24/89			
28.					
29.					
30.					

John J. Molloy, P.E.
Laboratory Director

H2M LABS, INC.

575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX 516-694-4122

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SD-3

Lab Name: H2M LABS INC. Contract: -----

Lab Code: ----- Case No.: ----- SAS No.: ----- SDG No.: SD-1

Matrix: (soil/water) SOIL Lab Sample ID: 873705

Sample wt/vol: 30.0405(g/mL) G Lab File ID: >P5389

Level: (low/med) LOW Date Received: 12/07/88

% Moisture: not dec. 66 dec. -- Date Extracted: 12/09/88

Extraction: (Sepf/Cont/Sonc) SONC Date Analyzed: 1/11/89

GPC Cleanup: (Y/N) N pH: 7.2 Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
108-95-2	Phenol	490.	U
111-44-4	bis(2-Chloroethyl)Ether	490.	U
95-57-8	2-Chlorophenol	490.	U
541-73-1	1,3-Dichlorobenzene	490.	U
106-46-7	1,4-Dichlorobenzene	490.	U
100-51-6	Benzyl alcohol	490.	U
95-50-1	1,2-Dichlorobenzene	490.	U
95-48-7	2-Methylphenol	490.	U
39638-32-9	bis(2-chloroisopropyl)ether	490.	U
106-44-5	4-Methylphenol	490.	U
621-64-7	N-Nitroso-Di-n-propylamine	490.	U
67-72-1	Hexachloroethane	490.	U
98-95-3	Nitrobenzene	490.	U
78-59-1	Isophorone	490.	U
88-75-5	2-Nitrophenol	490.	U
105-67-9	2,4-Dimethylphenol	490.	U
65-85-0	Benzoic acid	2500.	U
111-91-1	bis(2-Chloroethoxy)methane	490.	U
120-83-2	2,4-Dichlorophenol	490.	U
120-82-1	1,2,4-Trichlorobenzene	490.	U
91-20-3	Naphthalene	490.	U
106-47-8	4-Chloroaniline	490.	U
87-68-3	Hexachlorobutadiene	490.	U
59-50-7	4-Chloro-3-methylphenol	490.	U
91-57-6	2-Methylnaphthalene	490.	U
77-47-4	Hexachlorocyclopentadiene	490.	U
88-06-2	2,4,6-Trichlorophenol	490.	U
95-95-4	2,4,5-Trichlorophenol	2500.	U
91-58-7	2-Chloronaphthalene	490.	U
88-74-4	2-Nitroaniline	2500.	U
131-11-3	Dimethylphthalate	490.	U
208-96-8	Acenaphthylene	490.	U
606-20-2	2,6-Dinitrotoluene	490.	U

John J. Molldy, P.E.
Laboratory Director

Date Reported: 1/24/89

H2M LABS, INC.

575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX (516) 694-3422

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SD-3

Lab Name: H2M LABS INC. Contract: -----

Lab Code: ----- Case No.: ----- SAS No.: ----- SDG No.: SD-1

Matrix: (soil/water) SOIL Lab Sample ID: 873705

Sample wt/vol: 30.0405(g/mL) G Lab File ID: >P5389

Level: (low/med) LOW Date Received: 12/07/88

% Moisture: not dec. 66 dec. -- Date Extracted: 12/09/88

Extraction: (Sepf/Cont/Sonc) SONC Date Analyzed: 1/11/89

GPC Cleanup: (Y/N) N pH: 7.2 Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
99-09-2	3-Nitroaniline	2500.	U
83-32-9	Acenaphthene	490.	U
51-28-5	2,4-Dinitrophenol	2500.	U
100-02-7	4-Nitrophenol	2500.	U
132-64-9	Dibenzofuran	490.	U
121-14-2	2,4-Dinitrotoluene	490.	U
84-66-2	Diethylphthalate	490.	U
7005-72-3	4-Chlorophenyl-phenylether	490.	U
86-73-7	Fluorene	490.	U
100-01-6	4-Nitroaniline	2500.	U
534-52-1	4,6-Dinitro-2-methylphenol	2500.	U
86-30-6	N-Nitrosodiphenylamine (1)	490.	U
101-55-3	4-Bromophenyl-phenylether	490.	U
118-74-1	Hexachlorobenzene	490.	U
87-86-5	Pentachlorophenol	2500.	U
85-01-8	Phenanthrene	490.	U
120-12-7	Anthracene	490.	U
84-74-2	Di-n-butylphthalate	490.	U
206-44-0	Fluoranthene	490.	U
129-00-0	Pyrene	490.	U
85-68-7	Butylbenzylphthalate	490.	U
91-94-1	3,3'-Dichlorobenzidine	980.	U
56-55-3	Benzo(a)anthracene	490.	U
218-01-9	Chrysene	490.	U
117-81-7	bis(2-Ethylhexyl)phthalate	5000.	B
117-84-0	Di-n-octylphthalate	490.	U
205-99-2	Benzo(b)fluoranthene	490.	U
207-08-9	Benzo(k)fluoranthene	490.	U
50-32-8	Benzo(a)pyrene	490.	U
193-39-5	Indeno(1,2,3-cd)pyrene	490.	U
53-70-3	Dibenzo(a,h)anthracene	490.	U
191-24-2	Benzo(g,h,i)perylene	490.	U

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(1) - Cannot be separated from Diphenylamine

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John J. Molloy, P.E.
Laboratory Director

Date Reported: 1/24/89

FORM I SV-2 1/87 Rev.

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SD-3

Lab Name: H2M LABS INC. Contract: -----

Lab Code: ----- Case No.: ----- SAS No.: ----- SDG No.: SD-1

Matrix: (soil/water) SOIL Lab Sample ID: 873705

Sample wt/vol: 30.0405(g/mL) G Lab File ID: >P5389

Level: (low/med) LOW Date Received: 12/07/88

% Moisture: not dec.66 dec. __ Date Extracted: 12/09/88

Extraction: (Sepf/Cont/Sonc) SONC Date Analyzed: 1/11/89

GPC Cleanup: (Y/N) N pH: 7.2 Dilution Factor: 1.00000

Number TICs found: 20

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	141797	3-Penten-2-one, 4-methyl- (8	6.36	2100.	JBA
2.		Unknown	7.01	2400.	J
3.	~~75912~~	~~Hydroperoxide, 1,1-dimethyle~~ Unknown	7.87	61000.	JB
4.	2213232	Heptane, 2,4-dimethyl- (8CI9	8.30	3600.	JB
5.	540841	Pentane, 2,2,4-trimethyl- (8	8.50	3600.	JB
6.	55045084	Dodecane, 2-methyl-6-propyl-	22.96	1400.	J
7.	630024	Octacosane (8CI9CI)	24.46	1400.	J
8.	61141728	Dodecane, 4,6-dimethyl- (9CI	24.56	2700.	J
9.	544638	Tetradecanoic acid (9CI)	25.39	1500.	J
10.	~~61141728~~	~~Dodecane, 4,6-dimethyl-~~ Unknown (9CI	26.02	2200.	J
11.	55045084	Dodecane, 2-methyl-6-propyl-	27.24	1500.	J
12.	2091294	9-Hexadecenoic acid (8CI9CI)	28.00	20000.	J
13.	57103	Hexadecanoic acid (9CI)	28.20	5400.	J
14.	54833486	Heptadecane, 2,6,10,15-tetra	28.51	1300.	J
15.		Unknown	29.54	1800.	J
16.		Unknown	29.75	890.	J
17.	57114	Octadecanoic acid (9CI)	30.55	2800.	J
18.		Unknown	37.38	2000.	J
19.	516950	Epicholestanol	40.48	3900.	J
20.	570467	Cholestan-6-one, (5.alpha.)-	40.71	5000.	J
21.					
22.					
23.					
24.					
25.					
26.		Date Reported: 1/24/89			
27.					
28.					
29.					
30.					

John J. Molloy, P.E.
Laboratory Director

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H2M LABS, INC.

575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122

CASE NARRATIVE FOR PESTICIDES/PCBs

QC DATA

Recoveries for the surrogate standard exceeded the advisory limits for three extracts. This is due to coeluting interferences.

The matrix spike recoveries were outside the recommended limits for Lindane and Endrin for both extracts and for Aldrin for one of the spike analyses.

The relative percent difference between the two spikes exceeded the limits for two of six results.

SAMPLE ANALYSIS

The primary and secondary analyses were performed after 40 days from receipt date of samples due to analytical difficulties. Sample preparation did meet the required holding time of 5 days.

Sample SS-1 and its matrix spike duplicates had been analyzed in sequences that did not meet criteria and had to be reanalyzed. Since the extract volume had been divided into two vials, not enough volume was left for another analysis. Therefore, the remainder of the extract had to be diluted.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Date Reported: 3/15/89

****
* Liddel *
****
John J. Molloy, P.E.
Laboratory Director

H2M LABS, INC.
575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122
ENVIRONMENTAL and INDUSTRIAL ANALYTICAL LABORATORY

PESTICIDE ORGANICS ANALYSIS DATA SHEET

Lab Name: H2M LABS, INC. Contract: _____

SD-1 DL
LEROY CALLENDER, P.C.
U.S. ELECTROPLATING
SOIL SAMPLES

Matrix: SOIL
Sample Wt: 30.0585
Level: LOW
% Moisture: not dec. 33 dec. ____
Extraction: SONC
GPC Cleanup: NONE pH: 6.6

Lab Sample ID: 873703
Lab File ID: 446 / 981
Date Received: 12/7/89
Date Extracted: 12/9/89
Date Analyzed: 02-10-89/02-12-89
Dilution Factor: 5

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/kg	Q
319-84-6	alpha-BHC	60	U
319-85-7	beta-BHC	60	U
319-86-8	delta-BHC	60	U
58-89-9	gamma-BHC (Lindane)	60	U
76-44-8	Heptachlor	60	U
309-00-2	Aldrin	60	U
1024-57-3	Heptachlor epoxide	60	U
959-98-8	Endosulfan I	60	U
60-57-1	Dieldrin	120	U
72-55-9	4,4'-DDE	120	U
72-20-8	Endrin	120	U
33213-65-9	Endosulfan II	24	J
72-54-8	4,4'-DDD	120	U
1031-07-8	Endosulfan sulfate	120	U
50-29-3	4,4'-DDT	120	U
72-43-5	Methoxychlor	600	U
53494-70-5	Endrin ketone	120	U
5103-71-9	alpha-Chlordane	600	U
5103-74-2	gamma-Chlordane	600	U
8001-35-2	Toxaphene	1200	U
12674-11-2	Aroclor-1016	600	U
11104-28-2	Aroclor-1221	600	U
11141-16-5	Aroclor-1232	600	U
53469-21-9	Aroclor-1242	600	U
12672-29-6	Aroclor-1248	600	U
11097-69-1	Aroclor-1254	1200	U
11096-82-5	Aroclor-1260	1200	U

Date Reported: 3/20/89

John J. Molloy, P.E.
Laboratory Director

H2M LABS, INC.

575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122

ENVIRONMENTAL and INDUSTRIAL ANALYTICAL LABORATORY

PESTICIDE ORGANICS ANALYSIS DATA SHEET

SD-2 1330 HRS.
LEROY CALLENDER, P.C.
U.S. ELECTROPLATING
SOIL SAMPLES

Lab Name: H2M LABS, INC.
Contract: GIBBS & HILL
Matrix: SOIL
Sample wt: 30.0318 g
Level: LOW
% Moisture: not dec. 29 dec.
Extraction: SONC
GPC Cleanup: NONE pH: 7.3

Lab Sample ID: 873704
Lab File ID: 447 / 982
Date Received: 12/07/88
Date Extracted: 12/09/88
Date Analyzed: 02/10/89 / 02/12/89
Dilution Factor: 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/Kg	Q
319-84-6	alpha-BHC	11	U
319-85-7	beta-BHC	11	U
319-86-8	delta-BHC	11	U
58-89-9	gamma-BHC (Lindane)	11	U
76-44-8	Heptachlor	11	U
309-00-2	Aldrin	11	U
1024-57-3	Heptachlor epoxide	30	B
959-98-8	Endosulfan I	11	U
60-57-1	Dieldrin	22	U
72-55-9	4,4'-DDE	22	U
72-20-8	Endrin	22	U
33213-65-9	Endosulfan II	22	U
72-54-8	4,4'-DDD	22	U
1031-07-8	Endosulfan sulfate	25	
50-29-3	4,4'-DDT	25	
72-43-5	Methoxychlor	110	U
53494-70-5	Endrin ketone	22	U
5103-71-9	alpha-Chlordane	110	U
5103-74-2	gamma-Chlordane	110	U
8001-35-2	Toxaphene	220	U
12674-11-2	Aroclor-1016	110	U
11104-28-2	Aroclor-1221	110	U
11141-16-5	Aroclor-1232	110	U
53469-21-9	Aroclor-1242	110	U
12672-29-6	Aroclor-1248	110	U
11097-69-1	Aroclor-1254	220	U
11096-82-5	Aroclor-1260	220	U

Date Reported: 03/02/89

John J. Molloy, P.E.
Laboratory Director

H2M LABS, INC.

575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122

ENVIRONMENTAL and INDUSTRIAL ANALYTICAL LABORATORY

PESTICIDE ORGANICS ANALYSIS DATA SHEET

LP-1 1305 HRS.
LEROY CALLENDER, P.C.
U.S. ELECTROPLATING
SOIL SAMPLES

Lab Name: H2M LABS, INC.
Contract: GIBBS & HILL
Matrix: SOIL
Sample wt: 30.0405 g
Level: LOW
% Moisture: not dec. 69 dec.
Extraction: SONC
GPC Cleanup: NONE pH: 7.2

Lab Sample ID: 873705
Lab File ID: 448 / 983
Date Received: 12/07/88
Date Extracted: 12/09/88
Date Analyzed: 02/10/89 / 02/12/89
Dilution Factor: 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/Kg	Q
319-84-6	alpha-BHC	26	U
319-85-7	beta-BHC	26	U
319-86-8	delta-BHC	26	U
58-89-9	gamma-BHC (Lindane)	26	U
76-44-8	Heptachlor	26	U
309-00-2	Aldrin	26	U
1024-57-3	Heptachlor epoxide	62	B
959-98-8	Endosulfan I	26	U
60-57-1	Dieldrin	13	J
72-55-9	4,4'-DDE	52	U
72-20-8	Endrin	52	U
33213-65-9	Endosulfan II	52	U
72-54-8	4,4'-DDD	52	U
1031-07-8	Endosulfan sulfate	52	U
50-29-3	4,4'-DDT	38	J
72-43-5	Methoxychlor	260	U
53494-70-5	Endrin ketone	52	U
5103-71-9	alpha-Chlordane	260	U
5103-74-2	gamma-Chlordane	260	U
8001-35-2	Toxaphene	520	U
12674-11-2	Aroclor-1016	260	U
11104-28-2	Aroclor-1221	260	U
11141-16-5	Aroclor-1232	260	U
53469-21-9	Aroclor-1242	260	U
12672-29-6	Aroclor-1248	260	U
11097-69-1	Aroclor-1254	520	U
11096-82-5	Aroclor-1260	520	U

Date Reported: 03/02/89

John J. Molloy, P.E.
Laboratory Director

H2M LABS, INC.
575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122
ENVIRONMENTAL and INDUSTRIAL ANALYTICAL LABORATORY

CASE NARRATIVE FOR INORGANICS

ICP analysis was performed on the ARL 3410. Furnace analysis was performed on the Perkin Elmer Zeeman 5100. Mercury was analyzed via the cold vapor method using the Perkin Elmer 2380. The Perkin Elmer 2380 was used for flame analysis.

The arsenic matrix spike recovery was less than 75%. All arsenic results have been flagged with an "N" on Forms I-IN and V-IN (part 1). The antimony matrix spike recovery was greater than 125%. All antimony results have been flagged with an "N" on Forms I-IN and V-IN (part 1). Cadmium, chromium, copper and zinc matrix spike recoveries are not within 75-125%. The sample concentrations of these elements exceeds the spike concentrations by at least a factor of four. The data has been reported unflagged. The lead matrix spike recovery was not within the linear range as determined by the calibration curve generated at the beginning of the analytical run. Since the sample concentration is more than four times the spike concentration, the spiked sample result was neither reported nor was the sample result flagged.

The thallium post digestion spike recovery for sample SD-1 was not within 85-115%. The selenium post digestion spike recovery for sample LP-1 was not within 85-115%. Both of the above sample absorbances were less than 50% of the spike absorbances. The thallium and selenium results for the respective samples have been reported flagged with a "W" on Form I-IN.

The relative percent differences between sample and duplicate for mercury, aluminum, copper, iron and zinc analyses of sample SD-1 are all greater than 20% and the sample results ar all above the 5X CRQL level. The data for samples received associated with that duplicate sample have been reported flagged with an "*" on Forms I-IN and VI-IN.

The ICP serial dilution analysis of sample LP-1L for sodium did not agree within 10% of the original determination. The sodium data for the samples received associated with this serial dilution was reported flagged with an "E" on Forms I-IN and IX-IN.

The cyanide matrix spike recovery was greater than 125%. The sample concentration is much greater than four times the spike concentration, therefore all cyanide data has been reported unflagged.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Date Reported: 2/26/89

John J. Molloy, P.E.
Laboratory Director

415

H2M LABS, INC.

U.S. EPA - CLP

575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

XXXSD1

Lab Name: H2M LABS, INC. Contract: GIBBS&HILL

Lab Code: H2MLAB Case No.: SAS No.: SDG No.: GIB016

Matrix (soil/water): SOIL Lab Sample ID: 873706

Level (low/med): LOW Date Received: 12/07/88

% Solids: 67.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	11300		*	P
7440-36-0	Antimony	24.8		N	P
7440-38-2	Arsenic				
7440-39-3	Barium	85.7			P
7440-41-7	Beryllium	0.60	B		P
7440-43-9	Cadmium	913			P
7440-70-2	Calcium	19100			P
7440-47-3	Chromium	790			P
7440-48-4	Cobalt	8.7	B		P
7440-50-8	Copper	306		*	P
7439-89-6	Iron	19500		*	P
7439-92-1	Lead				
7439-95-4	Magnesium	9870			P
7439-96-5	Manganese	221			P
7439-97-6	Mercury				
7440-02-0	Nickel	121		E	P
7440-09-7	Potassium				
7782-49-2	Selenium				
7440-22-4	Silver				
7440-23-5	Sodium	2990			P
7440-28-0	Thallium				
7440-62-2	Vanadium				
7440-66-6	Zinc	1430		*	P
	Cyanide				

Color Before: BROWN Clarity Before: -- Texture: MEDIUM

Color After: YELLOW Clarity After: CLEAR Artifacts:

Comments:

John J. Molloy, P.E.
Laboratory Director

416 28

H2M LABS, INC.
575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122
ENVIRONMENTAL and INDUSTRIAL ANALYTICAL LABORATORY

INORGANIC ANALYSIS DATA SHEET

SD-1

Lab Name: H2M LABS, INC. Contract: GIBBS & HILL

Matrix (soil/water): SOIL Lab Sample ID: 873706

Level (low/med): LOW Date Received: 12/07/88

% Solids : 67

Concentration Units (ug/L or mg/kg dry weight) mg/kg dry wt.

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				
7440-36-0	Antimony				
7440-38-2	Arsenic	5.1		N	F
7440-39-3	Barium				
7440-41-7	Beryllium				
7440-43-9	Cadmium				
7440-70-2	Calcium				
7440-47-3	Chromium				
7440-48-4	Cobalt				
7440-50-8	Copper				
7439-89-6	Iron				
7439-92-1	Lead	628			F
7439-95-4	Magnesium				
7439-96-5	Manganese				
7439-97-6	Mercury	0.41		*	CV
7440-02-0	Nickel				
7440-09-7	Potassium	538			A
7782-49-2	Selenium	1.5	U		F
7440-22-4	Silver	9.0			A
7440-23-5	Sodium				
7440-28-0	Thallium	5	U	W	F
7440-62-2	Vanadium	53.8			A
7440-66-6	Zinc				
	Cyanide	187			C

Color Before: BROWN Clarity Before: -- Texture: MEDIUM
Color After: YELLOW Clarity After: CLEAR Artifacts: NO

Date Reported: 02/26/89

John J. Molloy, P.E.
Laboratory Director

H2M LABS, INC.

U.S. EPA - CLP

575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

XXXSD2

Lab Name: H2M LABS, INC. Contract: GIBBS&HILL

Lab Code: H2MLAB Case No.: SAS No.: SDG No.: GIB016

Matrix (soil/water): SOIL Lab Sample ID: 873707

Level (low/med): LOW Date Received: 12/07/88

% Solids: 71.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	10100		*	P
7440-36-0	Antimony	30.1		N	P
7440-38-2	Arsenic				
7440-39-3	Barium	86.8			P
7440-41-7	Beryllium	1.7			P
7440-43-9	Cadmium	615			P
7440-70-2	Calcium	31300			P
7440-47-3	Chromium	338			P
7440-48-4	Cobalt	12.7	B		P
7440-50-8	Copper	286		*	P
7439-89-6	Iron	66100		*	P
7439-92-1	Lead				
7439-95-4	Magnesium	9560			P
7439-96-5	Manganese	365			P
7439-97-6	Mercury				
7440-02-0	Nickel	70.7		E	P
7440-09-7	Potassium				
7782-49-2	Selenium				
7440-22-4	Silver				
7440-23-5	Sodium	3010			P
7440-28-0	Thallium				
7440-62-2	Vanadium				
7440-66-6	Zinc	841		*	P
	Cyanide				

Color Before: BROWN Clarity Before: -- Texture: MEDIUM

Color After: YELLOW Clarity After: CLEAR Artifacts:

Comments:

John J. Molloy, P.E.
Laboratory Director

H2M LABS, INC.
575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122
ENVIRONMENTAL and INDUSTRIAL ANALYTICAL LABORATORY

INORGANIC ANALYSIS DATA SHEET

SD-2

Lab Name: H2M LABS, INC. Contract: GIBBS & HILL

Matrix (soil/water): SOIL Lab Sample ID: 873707

Level (low/med): LOW Date Received: 12/07/88

% Solids : 71

Concentration Units (ug/L or mg/kg dry weight) mg/kg dry wt.

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				
7440-36-0	Antimony				
7440-38-2	Arsenic	11.8		N	F
7440-39-3	Barium				
7440-41-7	Beryllium				
7440-43-9	Cadmium				
7440-70-2	Calcium				
7440-47-3	Chromium				
7440-48-4	Cobalt				
7440-50-8	Copper				
7439-89-6	Iron				
7439-92-1	Lead	508			F
7439-95-4	Magnesium				
7439-96-5	Manganese				
7439-97-6	Mercury	0.13	U	*	CV
7440-02-0	Nickel				
7440-09-7	Potassium	254			A
7782-49-2	Selenium	1.4	U		F
7440-22-4	Silver	5.6			A
7440-23-5	Sodium				
7440-28-0	Thallium	5	U	W	F
7440-62-2	Vanadium	16.9			A
7440-66-6	Zinc				
	Cyanide	1202			C

Color Before: BROWN Clarity Before: -- Texture: MEDIUM
Color After: YELLOW Clarity After: CLEAR Artifacts: NO

Date Reported: 02/26/89

John J. Molloy, P.E.
Laboratory Director

H2M LABS, INC.

U.S. EPA - CLP

575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

XXXLP1

Lab Name: H2M LABS, INC. Contract: GIBBS&HILL

Lab Code: H2MLAB Case No.: SAS No.: SDG No.: GIB016

Matrix (soil/water): SOIL Lab Sample ID: 873708

Level (low/med): LOW Date Received: 12/07/88

% Solids: 34.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	11700		*	P
7440-36-0	Antimony	43.5		N	P
7440-38-2	Arsenic				
7440-39-3	Barium	132			P
7440-41-7	Beryllium	0.18	U		P
7440-43-9	Cadmium	1220			P
7440-70-2	Calcium	9290			P
7440-47-3	Chromium	1660			P
7440-48-4	Cobalt	6.5	B		P
7440-50-8	Copper	1050		*	P
7439-89-6	Iron	8830		*	P
7439-92-1	Lead				
7439-95-4	Magnesium	2450	B		P
7439-96-5	Manganese	52.4			P
7439-97-6	Mercury				
7440-02-0	Nickel	169		E	P
7440-09-7	Potassium				
7782-49-2	Selenium				
7440-22-4	Silver				
7440-23-5	Sodium	6020			P
7440-28-0	Thallium				
7440-62-2	Vanadium				
7440-66-6	Zinc	1200		*	P
	Cyanide				

Color Before: BROWN Clarity Before: -- Texture: MEDIUM

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

John J. Molloy, P.E.
Laboratory Director

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H2M LABS, INC.
575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122
ENVIRONMENTAL and INDUSTRIAL ANALYTICAL LABORATORY

INORGANIC ANALYSIS DATA SHEET

LP-1

Lab Name: H2M LABS, INC. Contract: GIBBS & HILL

Matrix (soil/water): SOIL Lab Sample ID: 873708

Level (low/med): LOW Date Received: 12/07/88

% Solids : 34

Concentration Units (ug/L or mg/kg dry weight) mg/kg dry wt.

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				
7440-36-0	Antimony				
7440-38-2	Arsenic	5.9	U	N	F
7440-39-3	Barium				
7440-41-7	Beryllium				
7440-43-9	Cadmium				
7440-70-2	Calcium				
7440-47-3	Chromium				
7440-48-4	Cobalt				
7440-50-8	Copper				
7439-89-6	Iron				
7439-92-1	Lead	88.2			F
7439-95-4	Magnesium				
7439-96-5	Manganese				
7439-97-6	Mercury	1.2		*	CV
7440-02-0	Nickel				
7440-09-7	Potassium	706			A
7782-49-2	Selenium	2.9	U	W	F
7440-22-4	Silver	5.9			A
7440-23-5	Sodium				
7440-28-0	Thallium	5	U		F
7440-62-2	Vanadium	29.4	U		A
7440-66-6	Zinc				
	Cyanide	650			C

Color Before: BROWN Clarity Before: -- Texture: MEDIUM
Color After: COLORLESS Clarity After: CLEAR Artifacts: NO

Date Reported: 02/26/89

John J. Molloy, P.E.
Laboratory Director

Terry Callender

3 Soil Samples

Field Blank

Trip Blank

CHAIN OF CUSTODY RECORD

PROJ. NO.:

PROJECT NAME: U.S. Electroplating Inc.

SAMPLERS: (Signature) Charlie Tucker

STA. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO OF CONTAINERS	glass vial (HCL)	glass liter (unpreserved)	1000 ml plastic (HNO3)	1qt cubic (NaOH)	glass vial (unpreserved)	250 ml jar (unpreserved)	120 ml jar (unpreserved)	REMARKS	
MW 1	11-28-88			X	Monitoring Well 1	14	3	9	2	2				VOC TCL MS	MSD AISC
MW 2	11-28-88			X	Monitoring Well 2	7	2	3	1	1					
MW 3	11-28-88			X	Monitoring Well 3	7	2	3	1	1					
MW 4	11-28-88			X	Monitoring Well 4	7	2	3	1	1					
					Field Blank	7	2	3	1	1					
					Trip Blank	2	2	-	-	-					
						5					2	1	2	N/A	Soil
						5					2	1	2	N/A	Soil
						5					2	1	2	N/A	Soil
					2 Gallon jugs - Field Blank Use										
					250 glass jar - Field Blank Use										

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
[signature]	11/28/88 8:55 AM	[signature]	Charlie Tucker	11-28-88 4:00	
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks	
Charlie Tucker	11-28-88 1600 hrs.	[signature]	11/28/88 1600 hrs		

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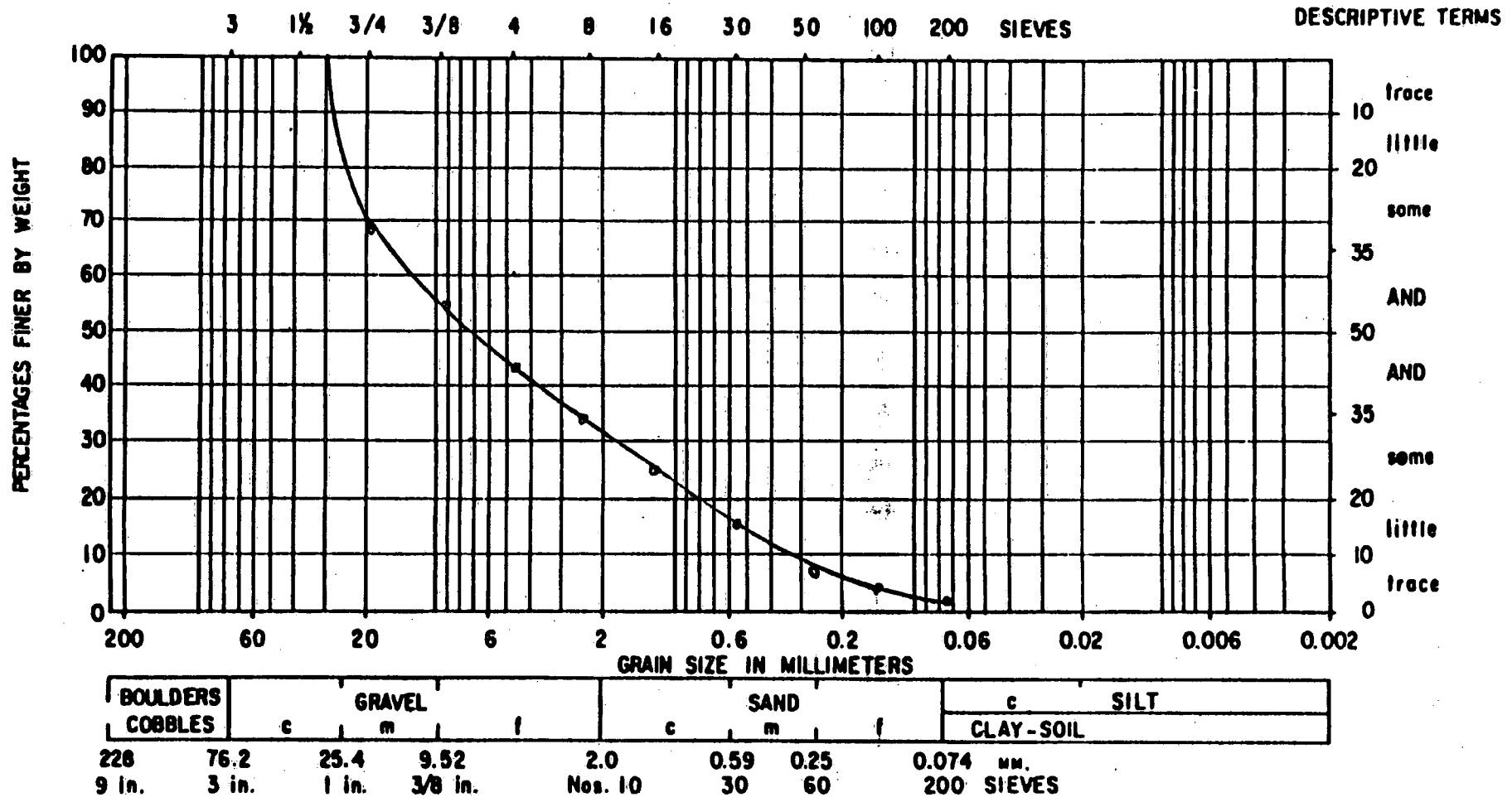
APPENDIX E

Grain Size Analyses

GRAIN SIZE ANALYSIS



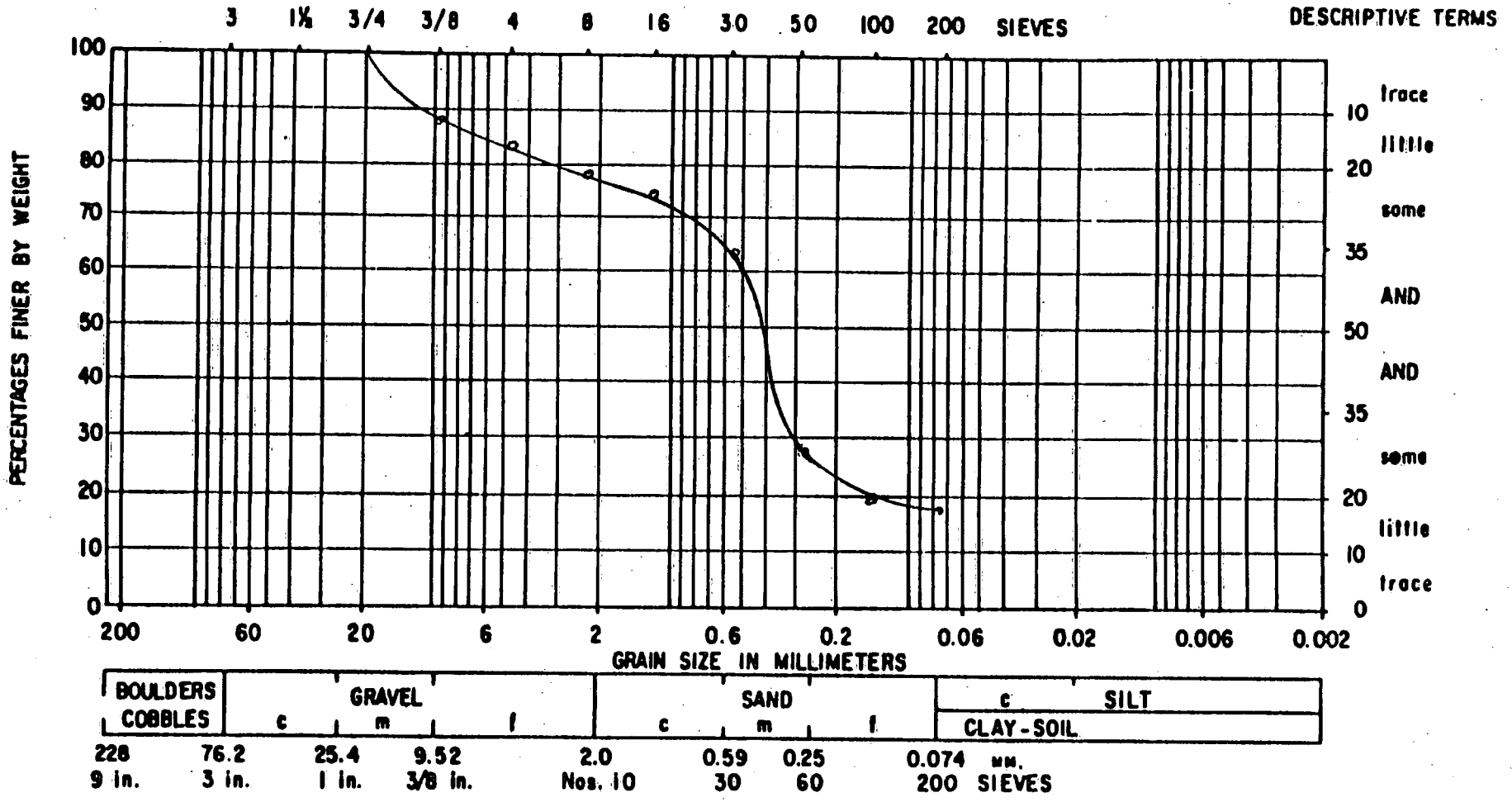
Project: Le Roy Callender

Location: U.S. Electro Plating Site NYDEC ID# 152027

Sample: MW-1

Depth: 0' - 2'

GRAIN SIZE ANALYSIS



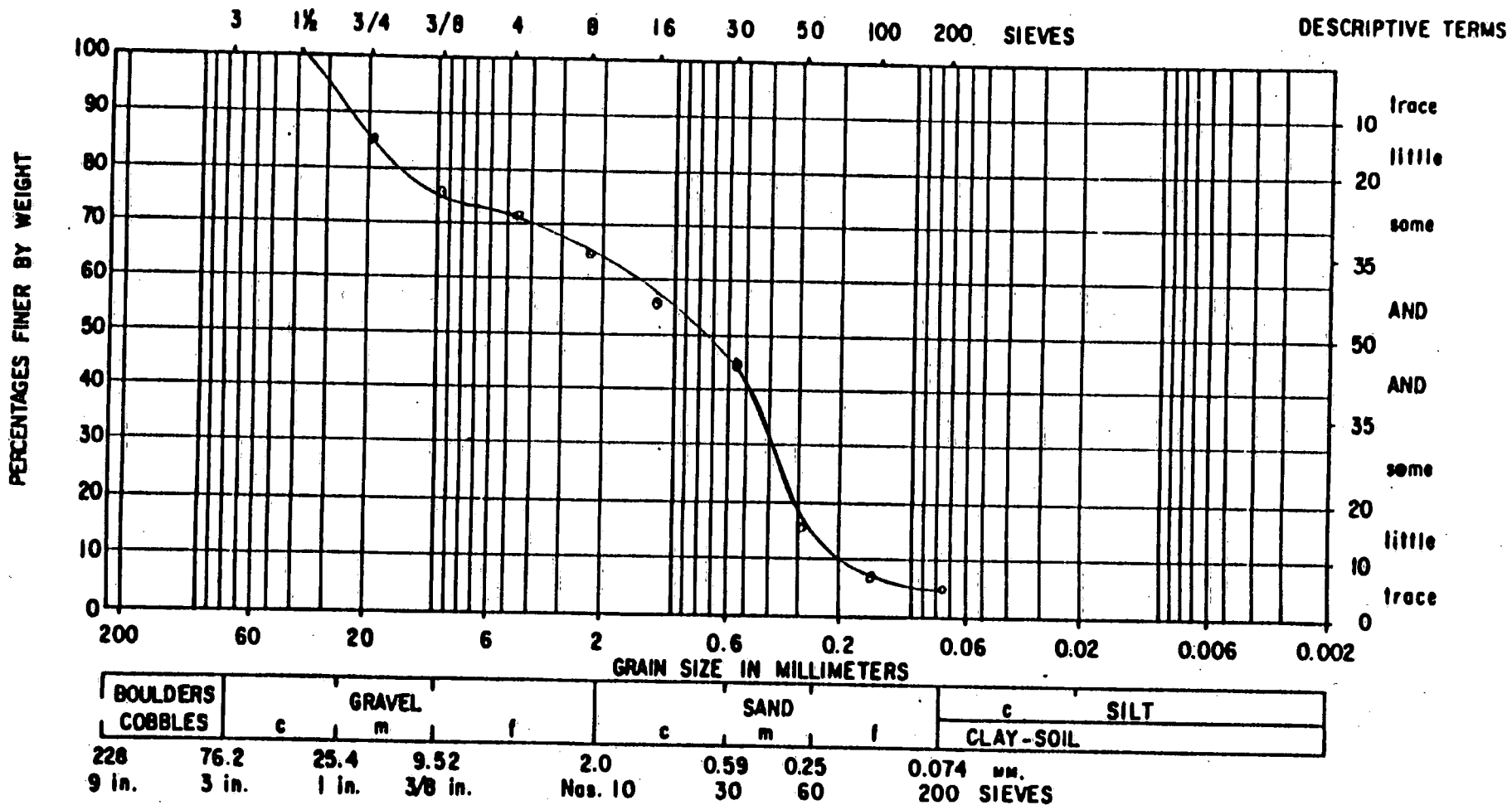
Project: Le Roy Callender

Location: U.S. Electro Plating Site NYDEC ID# 152027

Sample: MW-1

Depth: 5' - 9'

ANALYSIS



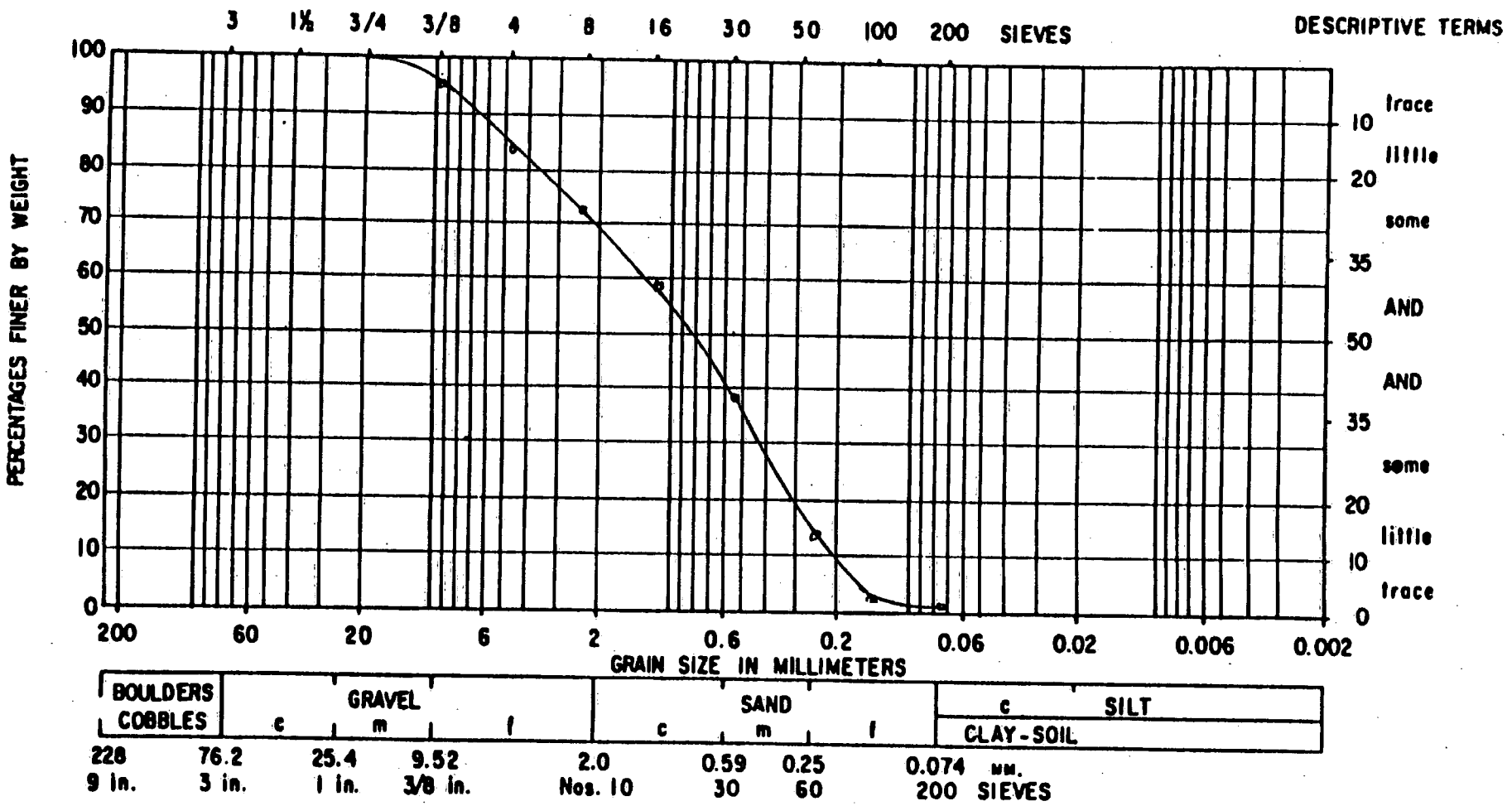
Project: Le Roy Callender

Location: U.S. Electro Plating Site NYDEC ID# 152027

Sample: MW-1

Depth: 7' - 9'

GRAIN SIZE ANALYSIS



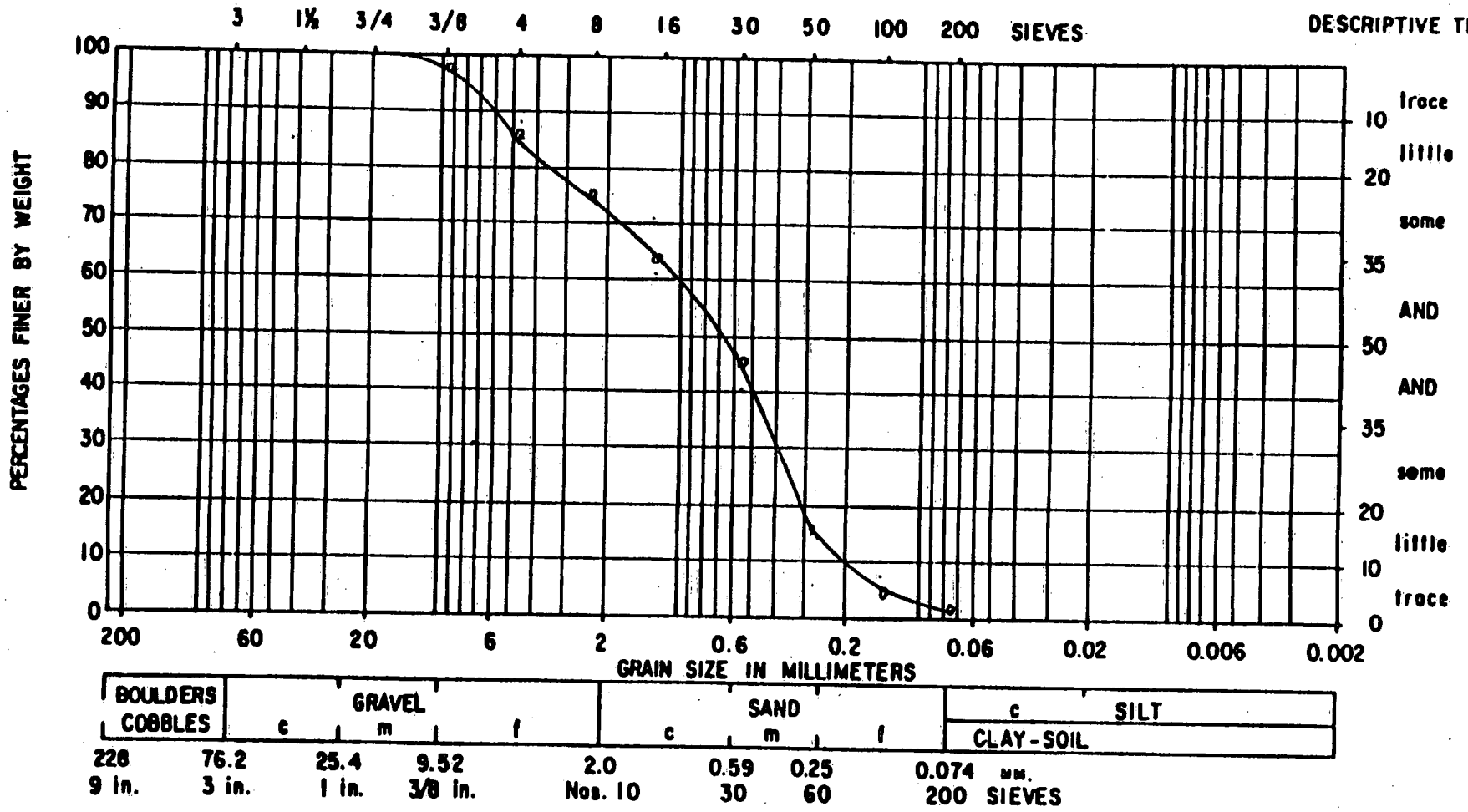
Project: Le Roy Callender

Location: U.S. Electro Plating Site NYDEC ID# 152027

Sample: MW-1

Depth: 15' - 17'

[redacted]



Project: Le Roy Callender

Location: U.S. Electro Plating Site NYDEC ID# 152027

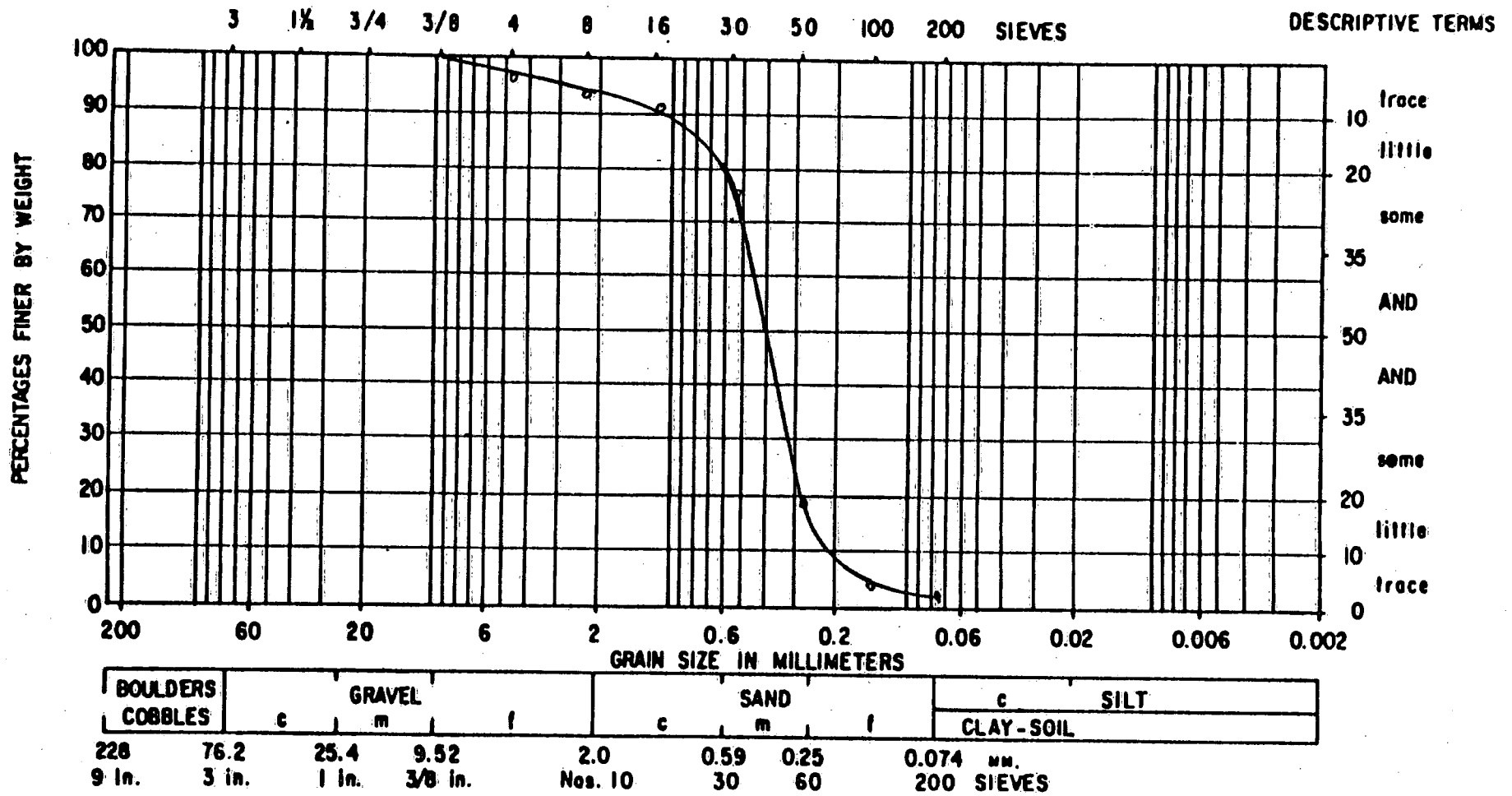
Sample: MW-1

Depth: 20' - 22'

G8-319 88364.11

Geo-Tech Laboratories

GRAIN SIZE ANALYSIS



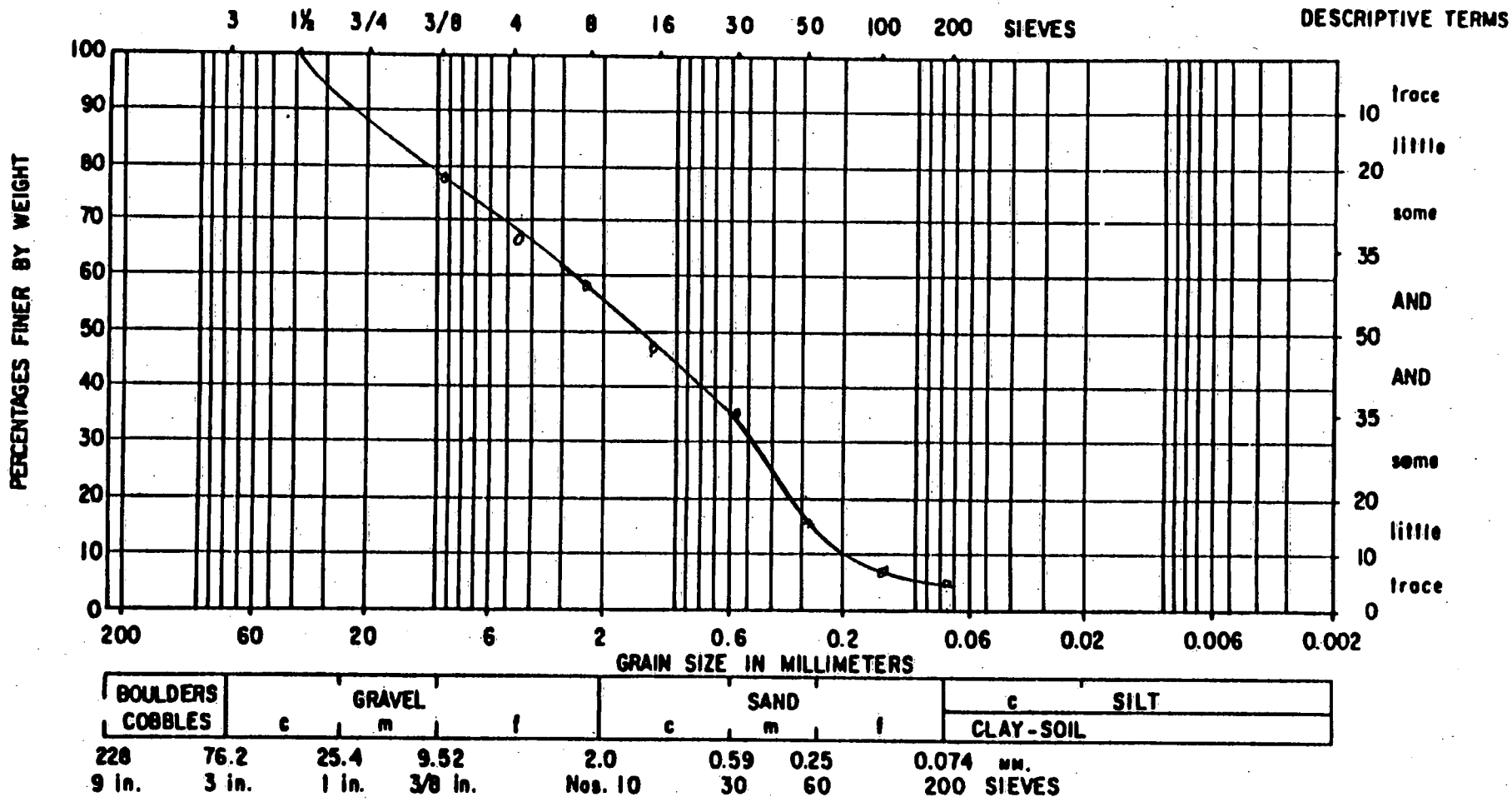
Project: Le Roy Callender

Location: U.S. Electro Plating Site NYDEC ID# 152027

Sample: MW-1

Depth: 25' - 27'

GRAIN SIZE ANALYSIS



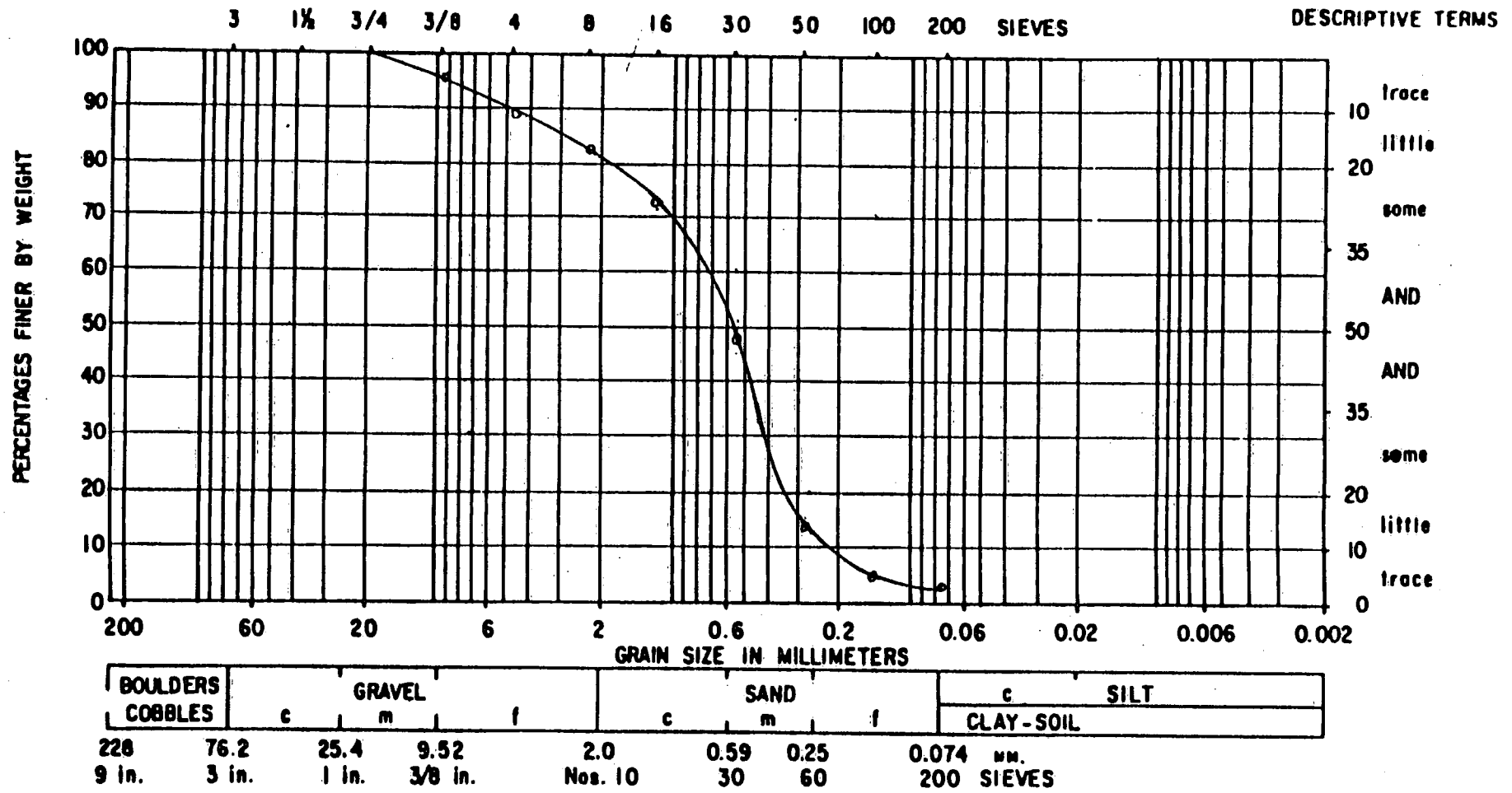
Project: Le Roy Callender

Location: U.S. Electro Plating Site NYDEC ID# 152027

Sample: MW-3

Depth: 0' - 2'

GRAIN SIZE ANALYSIS



Project: Le Roy Callender

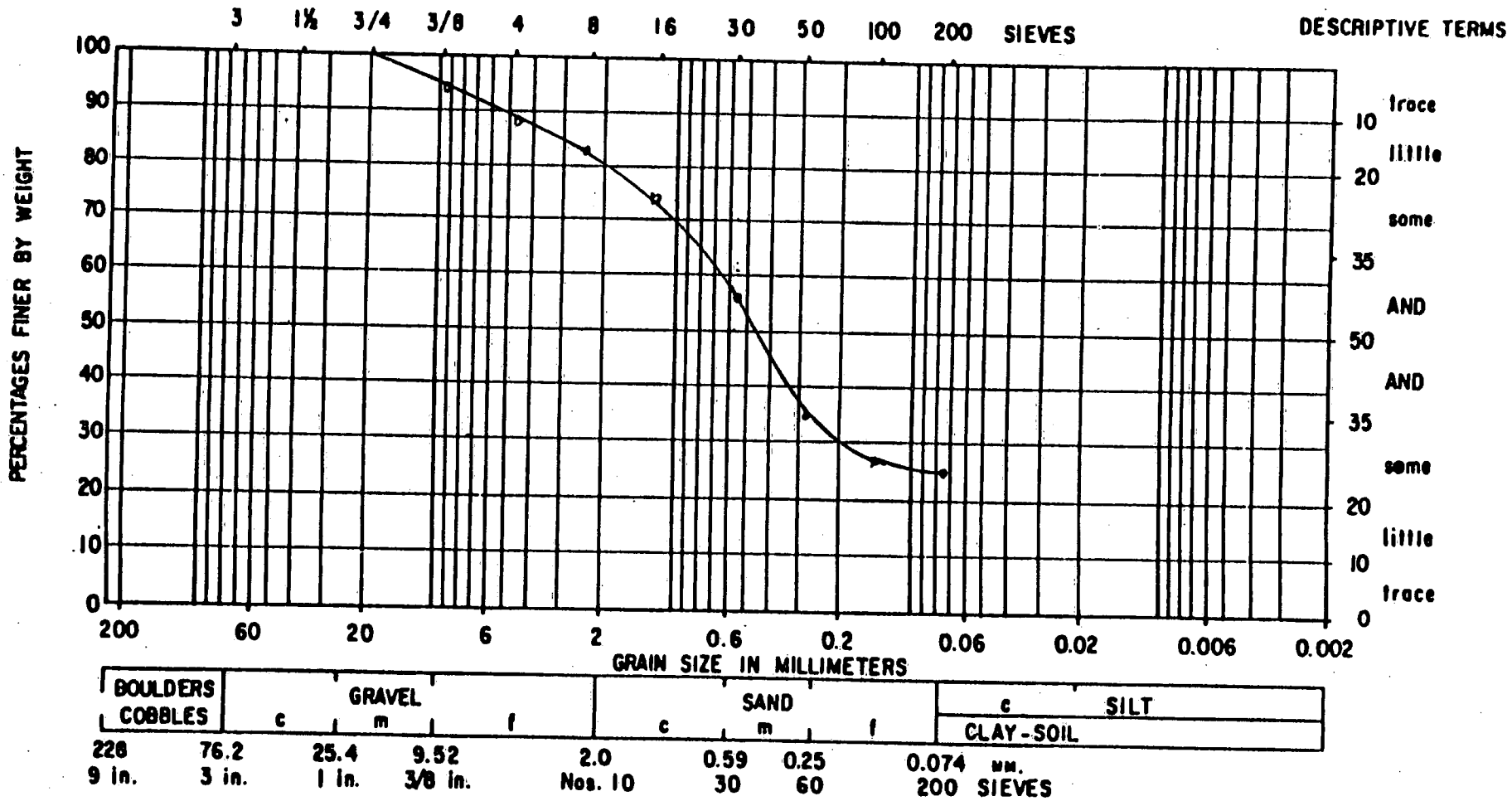
Location: U.S. Electro Plating Site NYDEC ID# 152027

Sample: MW-3

Depth: 5' - 7'

Geo-Tech Laboratori

GRAIN SIZE ANALYSIS



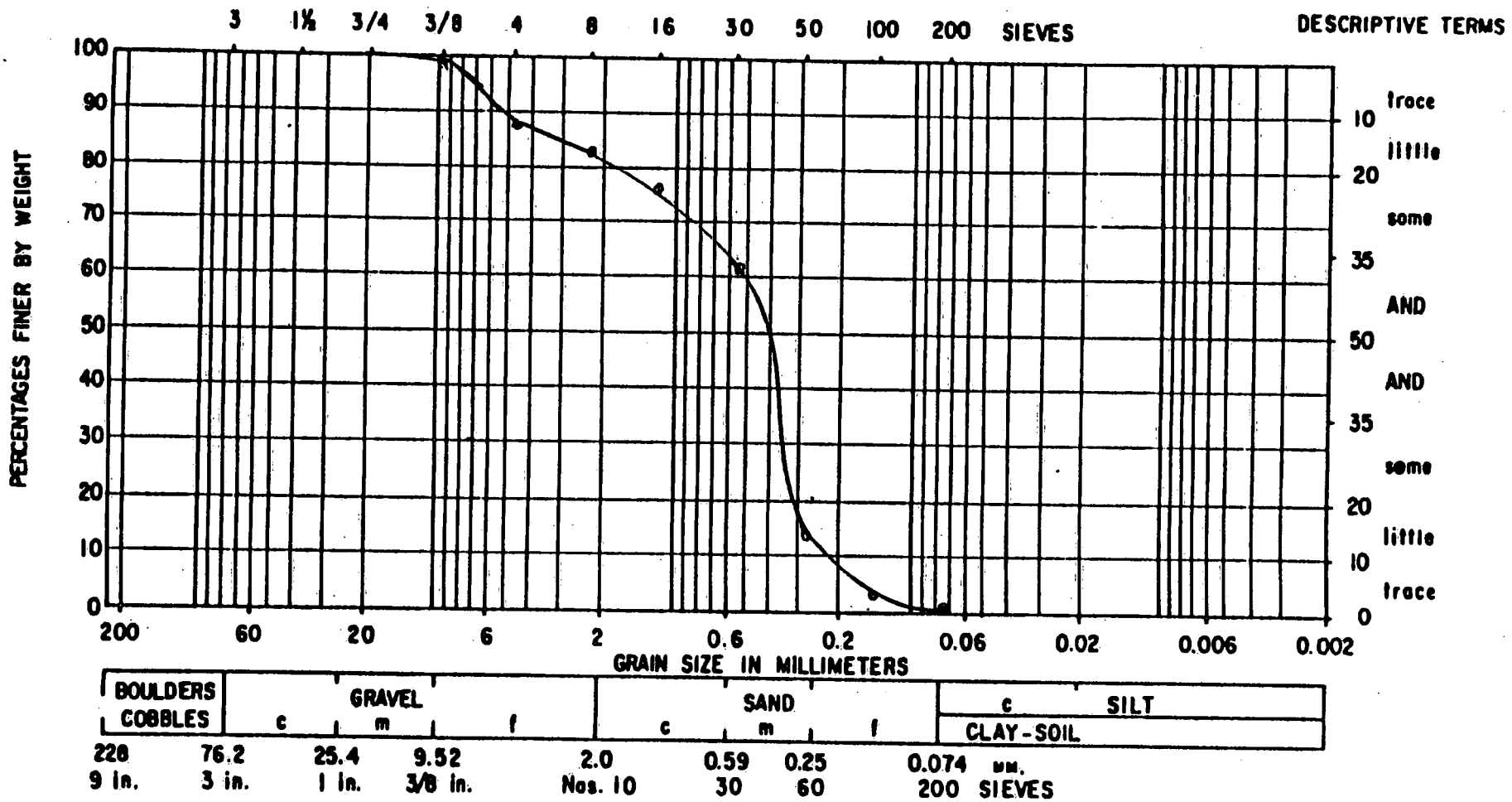
Project: Le Roy Callender

Location: U.S. Electro Plating Site NYDEC ID# 152027

Sample: MW-3

Depth: 15' - 17'

GRAIN SIZE ANALYSIS

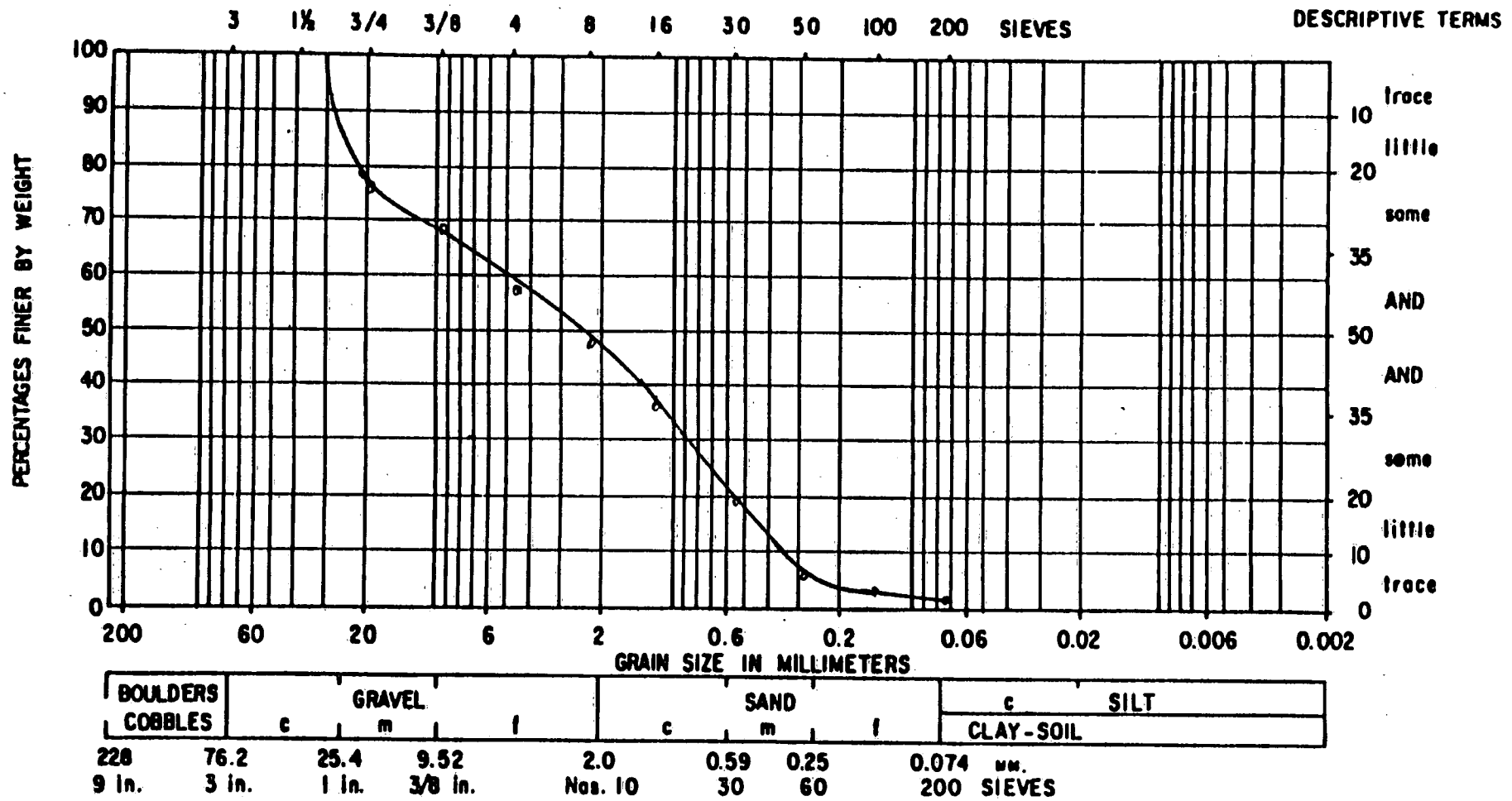


Project: Le Roy Callender

Location: U.S. Electro Plating Site NYDEC ID# 152027

Sample: MW- 3

Depth: 20' - 22"



Project: Le Roy Callender

Location: U.S. Electro Plating Site NYDEC ID# 152027

Sample: MW-3

Depth: 25' - 27'

452

G8-319 88364.11

Geo-Tech Laboratories

REFERENCE NO. 3

ARCS II CONTRACT 68-W9-0051
MALCOLM PIRNIE, INC.
RECORD OF TELEPHONE CONVERSATION/AGREEMENT

File No. 8003-450

Date: October 26, 1995 Time: 10:30 AM [X] PM [ ]

Outgoing Call

To: John Soderberg (516) -227-0681
Telephone No.

Affiliation: Legal Counsel for U.S. Electroplating Corp.

Malcolm Pirnie Staff: Bernard Pierre (609) 860-0100
Telephone No.

Summary of Conversation:

I contacted Mr. Soderberg for information concerning the number of on-site employees, and the fate of any industrial waste water generated at the site. Mr. Soderberg informed me that the wastewater generated was stored in a holding tank on-site, then hauled off-site by RGM contractors to KBF disposal facility. Mr. Soderberg wanted to know why the employee information was needed. I explained that the on-site employee information was required by the EPA model to evaluate the soil exposure pathway, and thus fully evaluate the site. Mr. Soderberg informed me that his client (Mr. Birnbaum) would not disclose the employee information.

REFERENCE NO. 4

federal register

Friday
December 14, 1990

Part II

Environmental Protection Agency

40 CFR Part 300

Hazard Ranking System; Final Rule

TABLE 3-6.—HYDRAULIC CONDUCTIVITY OF GEOLOGIC MATERIALS

Type of material	Assigned hydraulic conductivity [a] (cm/sec)
Clay; low permeability till (compact unfractured till); shale; unfractured metamorphic and igneous rocks	10^{-6}
Silt; loesses; silty clays; sediments that are predominantly silts; moderately permeable till (fine-grained, unconsolidated till, or compact till with some fractures); low permeability limestones and dolomites (no karst); low permeability sandstone; low permeability fractured igneous and metamorphic rocks	10^{-5}
Sands; sandy silts; sediments that are predominantly sand; highly permeable till (coarse-grained, unconsolidated or compact and highly fractured); peat; moderately permeable limestones and dolomites (no karst); moderately permeable sandstone; moderately permeable fractured igneous and metamorphic rocks	10^{-4}
Gravel; clean sand; highly permeable fractured igneous and metamorphic rocks; permeable basalt; karst limestones and dolomites	10^{-3}

[a] Do not round to nearest integer.

TABLE 3-7.—TRAVEL TIME FACTOR VALUES [a]

Hydraulic conductivity (cm/sec)	Thickness of lowest hydraulic conductivity layer(s) [b] (feet)			
	Greater than 3 to 5	Greater than 5 to 100	Greater than 100 to 500	Greater than 500
Greater than or equal to 10^{-3}	35	35	35	25
Less than 10^{-3} to 10^{-5}	35	25	15	15
Less than 10^{-5} to 10^{-7}	15	15	5	5
Less than 10^{-7}	5	5	1	1

[a] If depth to aquifer is 10 feet or less or if, for the interval being evaluated, all layers that underlie a portion of the sources at the site are karst, assign a value of 35.

[b] Consider only layers at least 3 feet thick. Do not consider layers or portions of layers within the first 10 feet of the depth to the aquifer.

Determine travel time only at locations within 2 miles of the sources at the site, except: if observed ground water contamination attributable to sources at the site extends more than 2 miles beyond these sources, use any location within the limits of this observed ground water contamination when evaluating the travel time factor for any aquifer that does not have an observed release. If the necessary subsurface geologic information is available at multiple locations, evaluate the travel time factor at each location. Use the location having the highest travel time factor value to assign the factor value for the aquifer. Enter this value in Table 3-1.

3.1.2.5 *Calculation of potential to release factor value.* Sum the factor values for net precipitation, depth to aquifer, and travel time, and multiply this sum by the factor value for containment. Assign this product as the potential to release factor value for the aquifer. Enter this value in Table 3-1.

3.1.3 *Calculation of likelihood of release factor category value.* If an observed release is established for an aquifer, assign the observed release factor value of 550 as the likelihood of release factor category value for that aquifer. Otherwise, assign the potential to release factor value for that aquifer as the likelihood of release value. Enter the value assigned in Table 3-1.

3.2 *Waste characteristics.* Evaluate the waste characteristics factor category for an aquifer based on two factors: toxicity/mobility and hazardous waste quantity. Evaluate only those hazardous substances available to migrate from the sources at the site to ground water. Such hazardous substances include:

- Hazardous substances that meet the criteria for an observed release to ground water.
- All hazardous substances associated with a source that has a ground water containment factor value greater than 0 (see sections 2.2.2, 2.2.3, and 3.1.2.1).

3.2.1 *Toxicity/mobility.* For each hazardous substance, assign a toxicity factor value, a mobility factor value, and a combined toxicity/mobility factor value as specified in the following sections. Select the toxicity/mobility factor value for the aquifer being evaluated as specified in section 3.2.1.3.

3.2.1.1 *Toxicity.* Assign a toxicity factor value to each hazardous substance as specified in Section 2.4.1.1.

3.2.1.2 *Mobility.* Assign a mobility factor value to each hazardous substance for the aquifer being evaluated as follows:

- For any hazardous substance that meets the criteria for an observed release by chemical analysis to one or more aquifers underlying the sources at the site, regardless of the aquifer being evaluated, assign a mobility factor value of 1.
- For any hazardous substance that does not meet the criteria for an observed release by chemical analysis to at least one of the aquifers, assign that hazardous substance a mobility factor value from Table 3-8 for the aquifer being evaluated, based on its water solubility and distribution coefficient (K_d).
- If the hazardous substance cannot be assigned a mobility factor value because data on its water solubility or distribution coefficient are not available, use other hazardous substances for which information is available in evaluating the pathway.

TABLE 3-8.—GROUND WATER MOBILITY FACTOR VALUES [a]

Water solubility (mg/l)	Distribution coefficient (K_d) (ml/g)			
	Karst [c]	≤ 10	> 10 to 1,000	> 1,000
Present as liquid [b]	1	1	0.01	0.0001
Greater than 100	1	1	0.01	0.0001
Greater than 1 to 100	0.2	0.2	0.002	2×10^{-6}
Greater than 0.01 to 1	0.002	0.002	2×10^{-5}	2×10^{-7}
Less than or equal to 0.01	2×10^{-5}	2×10^{-5}	2×10^{-7}	2×10^{-9}

[a] Do not round to nearest integer.

[b] Use if the hazardous substance is present or deposited as a liquid.

[c] Use if the entire interval from the source to the aquifer being evaluated is karst.

REFERENCE NO. 5

MALCOLM PIRNIE, INC.	PROJECT NOTE

TO:	Project File	**DATE:**	October 13, 1995
FROM:	Bernard Pierre	**PROJECT #:**	8003-450
SUBJECT:	Drinking Water Sources	**SITE NAME:**	U.S. Electroplating Corp.

The following water suppliers are located within 4 miles of the U.S. Electroplating Corp. Site: South Huntington Water District, Farmingdale Village Water Department, East Farmingdale Water District, Plainview Water Department, Suffolk County Water Authority. They are listed below along with the number of wells present within 4-miles of the site.

1) **South Huntington Water District** - They have three (3) wells within 4 miles of the site.

2) **Farmingdale Village Water Department** - They have three (3) wells within 4 miles of the site.

3) **East Farmingdale Water District** - They have five (5) wells within 4 miles of the site.

4) **South Farmingdale Water District** - They have four (4) wells within 4 miles of the site.

5) **Plainview Water Department** - They have four (4) wells within 4 miles of the site.

6) **Suffolk County Water Authority** - They have twenty eight (28) wells within 4 miles of the site.

Summary

Groundwater is the sole source of water for public supply, agriculture, and industry in Suffolk County. There are six water suppliers within a 4 mile radius of the site. They obtain their water from a total of 47 drinking water wells located within a four mile radius of the site. Also there are no surface water intakes located along the 15-mile surface water pathway of the site.

MALCOLM PIRNIE, INC.			PROJECT NOTE
TO:	Project File	**DATE:**	October 13, 1995
FROM:	Bernard Pierre	**PROJECT #:**	8003-450
SUBJECT:	Population on Groundwater	**SITE NAME:**	U.S. Electroplating Corp.

Upper Glacial Aquifer

Distance From Site	No. of Wells	Population Served by SCWA
0 - ¼ mile	0	0
¼ - ½ mile	0	0
½ - 1 mile	0	0
1 - 2 mile	1	2320
2 - 3 mile	0	0
3 - 4 mile	0	0
0 - 4 mile	1	2320

Magothy Aquifer

Distance From Site	No. of Wells	Total Population Served
0 - ¼ mile	0	0
¼ - ½ mile	0	0
½ - 1 mile	0	0
1 - 2 mile	11	23468
2 - 3 mile	19	41087
3 - 4 mile	17	45893
0 - 4 mile	47	110448

TOTALS FOR THE SITE

Distance From Site	No. of Wells	Total Population Served
0 - ¼ mile	0	0
¼ - ½ mile	0	0
½ - 1 mile	0	0
1 - 2 mile	12	25788
2 - 3 mile	19	41087
3 - 4 mile	17	45893
0 - 4 mile	48	112768

MALCOLM PIRNIE, INC.			PROJECT NOTE
TO:	Project File	DATE:	October 13, 1995
FROM:	Bernard Pierre	PROJECT #:	8003-450
SUBJECT:	Population on Groundwater	SITE NAME:	U.S. Electroplating Corp.

Groundwater is the sole source of water for public water supplies in Suffolk County. South Huntington Water District (SHWD) is one of the public water supplier that serves the areas located within four miles of the U.S. Electroplating Corp. site.

South Huntington Water District (SHWD)

There are 3 active wells located within four miles of the U.S. Electroplating Corp. site. Within four miles of the site, all of the wells tap the Magothy Aquifer. SHWD utilizes a total of 19 wells that serve 55,000 people. The SHWD distribution is interconnected. No well contributes more than 40% of the total system flow.

EFWD Apportionment Calculation

Population served = 55,000 people

(55,000 people) / (19 wells) = 2,895 people/well

Magothy Aquifer

Distance From Site	No. of Wells	Population Served by EFWD
0 - ¼ mile	0	0
¼ - ½ mile	0	0
½ - 1 mile	0	0
1 - 2 mile	0	0
2 - 3 mile	2	5790
3 - 4 mile	1	2895
0 - 4 mile	3	8685

South Huntington Water District

W. 13th Street & 5th Avenue South
P.O. BOX 370
Huntington Station, New York 11746

427-8190 / 91 / 92

October 17, 1995

Mr. Bernard M. Pierre
Environmental Engineer
Malcom Pirnie, Inc.
104 Interchange Plaza
Cranbury, N.J. 08512-9543

Dear Mr. Pierre:

I am in receipt of your letter dated October 12, 1995. I shall answer you questions in the order outlined in your letter:

A) The District has 19 wells. Three of them, Wells #7-1 and #7-2 (Walt Whitman Road and Duryea Road) and Well #18 (Cottontail Road and Walt Whitman Road) are located within the 4-mile radius as outlined on your map. These wells are highlighted in yellow.

B) The water system is blended. The District serves an estimated 55,000 people. No well provides more than 40% of the water for the entire system.

C) Well #7-1 is 552' deep, Well #7-2 is 595' deep, Well #18 is 650' deep. All three wells are in the Magothy Aquifer.

D) I am unsure of the term "backup well".

I am enclosing your map with Wells #7-1, #7-2, and #18 noted.

Please notify me if you require anything further.

Sincerely,

Kevin Carroll

Superintendent

ARCS II CONTRACT 68-W9-0051
MALCOLM PIRNIE, INC.
RECORD OF TELEPHONE CONVERSATION/AGREEMENT

File No. 8003-244

Date: July 21, 1993 Time: 2:05 AM [] PM [X]

Outgoing Call

To: Kevin Carroll, Superintendent (516) 427-8190 Telephone No.

Affiliation: South Huntington Water District

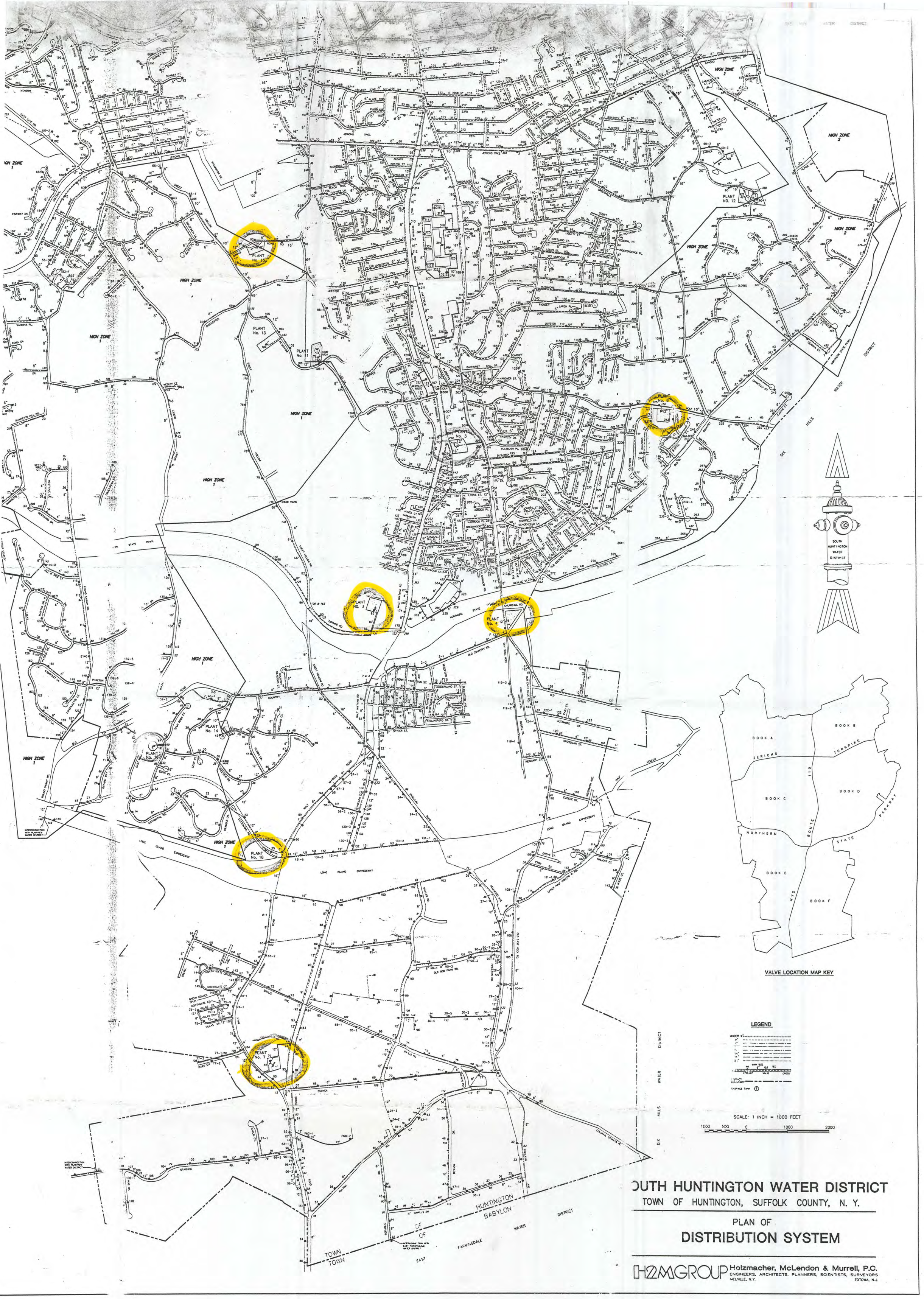
Malcolm Pirnie Staff: Andrew Clibanoff (609) 860-0100 Telephone No.

Summary of Conversation:

I phoned Mr. Carroll to confirm the information contained in a January 30, 1992 letter from Mr. Carroll to Susan Lenczyk of Halliburton NUS and to get a better description of the locations of wells located within four miles of the Cantor Brothers, Inc. site. Mr. Carroll confirmed that the South Huntington Water District (SHWD) utilizes 19 wells to supply 55,000 people with potable water. There are approximately 15,750 connections in the SHWD system. The system is interconnected and no well contributes more than 40% of the total system flow. The letter identified 11 wells located south of Jericho Turnpike, which runs east/west and is located approximately five miles north of the site. Mr. Carroll confirmed that all of these wells are in operation and that there are no additional wells located south of Jericho Turnpike. Of the 11 wells located south of Jericho Turnpike, 10 tap the Magothy Formation. Well No. 3-1 is the only well that taps the Upper Glacial Formation.

Mr. Carroll proceeded to describe the locations of the wells of interest. It became apparent that two of the wells (Well Nos. 15-1 and 15-2) were located more than four miles from the site. Well Nos. 3-1 and 3-2 are located on the east side of Amityville Road near its northern intersection with Walt Whitman Road (approximately 3.7 miles north of the site). Well No. 8 is located on the south side of Wolf Hill Road between its intersections with Dunford St. and Windsor Place (approximately 3.8 miles north\northeast of the site). Well No. 9 is located on the northwest corner of the intersection of Route 110 and the Northern State Parkway (approximately 2.9 miles north of the site). Well No. 16 is located on East Mall Drive near the intersection with Split Rock Court (approximately 2.7 miles north/northwest of the site). Well Nos. 7-1 and 7-2 are located at the intersection of Walt Whitman Road and Duryea Road (approximately 1.1 miles northwest of the site). Well No. 4 is located in the triangle of land created by the intersections of Old Country Road, New York Ave., and East Neck Road (approximately 2.8 miles north of the site). Well No. 18 is located near the intersection of Cottontail Road and Walt Whitman Road (approximately 2.2 miles north/northwest of the site). Andrew Clibanoff

Ref. No. 19, p. 1 of 1



SOUTH HUNTINGTON WATER DISTRICT

TOWN OF HUNTINGTON, SUFFOLK COUNTY, N. Y.

PLAN OF

DISTRIBUTION SYSTEM

H2MGROUP Holzmacher, McLendon & Murrell, P.C.
ENGINEERS, ARCHITECTS, PLANNERS, SCIENTISTS, SURVEYORS
MELVILLE, N.Y. TOTOWA, N.J.

Ref. No. 20, p. 1 of 1

MALCOLM PIRNIE, INC.			PROJECT NOTE
TO:	Project File	DATE:	October 13, 1995
FROM:	Bernard Pierre	PROJECT #:	8003-450
SUBJECT:	Population on Groundwater	SITE NAME:	U.S. Electroplating Corp.

Groundwater is the sole source of water for public water supplies in Suffolk County. Farmingdale Village Water Department (FVWD) is one of the public water supplier that serves the areas located within four miles of the U.S. Electroplating Corp. site.

Farmingdale Village Water District (FVWD)

Ther are 3 active wells located within four miles of the U.S. Electroplating Corp. site. Within four miles of the site, all of the wells tap the Magothy Aquifer. FVWD utilizes a total of 3 wells that serve 2,135 connections. One well, Wel No. 2-3, pumps approximately 50-60%. The FVWD distribution is interconnected.

EFWD Apportionment Calculation

Population served = 2,135 * 2.94 = 6,277 people
Well No. 2-3: 60%
Well No. 2-3: 6,277 * 0.6 = 3,766 people
The Remaining Wells : 2,511 / 2 = 1,255 people/well

Magothy Aquifer

Distance From Site	No. of Wells	Population Served by EFWD
0 - ¼ mile	0	0
¼ - ½ mile	0	0
½ - 1 mile	0	0
1 - 2 mile	0	0
2 - 3 mile	1	1255
3 - 4 mile	2	5022
0 - 4 mile	3	6277

ARCS II CONTRACT 68-W9-0051
MALCOLM PIRNIE, INC.
RECORD OF TELEPHONE CONVERSATION/AGREEMENT

File No. 8003-286

Date: December 27, 1994 Time: 1:30 AM [] PM []

Outgoing Call

To: John Ott (Superintendent) (516) 249-0111
Telephone No.

Affiliation: Farmingdale Village Water Department

Malcolm Pirnie Staff: Jin Ho Jang JHJ (609) 860-0100
Telephone No.

Summary of Conversation:

I phoned Mr. Ott to update the groundwater information for Farmingdale Village Water Department (FVWD). Mr. Ott confirmed that there are 2,135 service connections with water withdrawn from three supply wells. The wells are interconnected with one well (No. 2-3) pumping approximately 50-60% of FVWD supply. The wells are completed in the Magothy Formation Aquifer. Mr. Ott will send Malcolm Pirnie, Inc. information on well locations, pumpage data, and well logs.

Ref. No. 26, p. 1 of 1

8

Incorporated

Village of Farmingdale

P.O. Box 220, 361 Main Street, Farmingdale, New York 11735
Tel. 516-249-0093

Mayor
Joseph M. Trudden

Trustee
Pat Romanelli
Benjamin Giminaro
Michael F. Kelly
Salvatore B. Pontillo

Clerk-Treasurer
John Giordano

Deputy Clerk-Treasurer
Karel M. Rice

Supt. Public Works
John A. Scherer

Department of Buildings
Andrew J. Koukos

Village Attorney
James L. Breen

Village Justice
Salvatore J. Nicosia

Department of Housing
Ernest Bier

December 28, 1994

Mr. Jin Jang
Malcolnpire
104 Interchange Plaza
Cranbury, NJ 08512

Dear Mr. Jang;

I have compiled the information you have requested concerning the three wells in the Village of Farmingdale. If you need any additional information, please call me at (516) 249-0111.

Sincerely

Donald E. Ott

Donald E. Ott
Water Supervisor
Village of Farmingdale

Ref. No. 27, p. 1 of 2

THE INC. VILLAGE OF FARMINGDALE N.Y.

9

WELL 1-3

LOCATION: Eastern Parkway
LATITUDE: 40° 44 minutes 0 seconds
LONGITUDE: 73° 26 minutes 30 seconds

DEPTH: 457 feet
GPM: 1250
AQUIFER: MAGOTHY
STATIC WATER LEVEL: 28.5 feet
PUMPING LEVEL: 65 feet
DRAW DOWN: 36.5 feet

1993 PUMPAGE: 176,616,000
1994 PUMPAGE THROUGH NOVEMBER: 79,089,000
1993 WELL 1-3 used 43%
1994 WELL 1-3 used 22%

WELL 2-2

LOCATION: RIDGE RD. & KETCHAM LN.
LATITUDE: 40° 44 minutes 0 seconds
LONGITUDE: 73° 27 minutes 0 seconds

DEPTH: 227 Feet
GPM: 1000
AQUIFER: MAGOTHY
STATIC WATER LEVEL: 66 Feet
PUMPING LEVEL: 90 Feet
DRAW DOWN: 24 Feet

1993 PUMPAGE: 26,539,000
1994 PUMPAGE THROUGH NOVEMBER: 14,763,000
1993 WELL 2-2 used 6%
1994 WELL 2-2 used 4%

WELL 2-3

LOCATION: RIDGE RD. & KETCHAM LN.
LATITUDE: 40° 44 minutes 0 seconds
LONGITUDE: 73° 27 minutes 0 seconds

DEPTH: 510 feet
GPM: 1300
AQUIFER: MAGOTHY
STATIC WATER LEVEL: 39'
PUMPING LEVEL: 63'
DRAW DOWN: 24 Feet

1993 PUMPAGE: 204,536,000
1994 PUMPAGE THROUGH NOVEMBER: 264,445,000
1993 WELL 2-3 used 51%
1994 WELL 2-3 used 74%

Ref. No. 27 p. 2 of 2

MALCOLM PIRNIE, INC.			PROJECT NOTE
TO:	Project File	DATE:	October 13, 1995
FROM:	Bernard Pierre	PROJECT #:	8003-450
SUBJECT:	Population on Groundwater	SITE NAME:	U.S. Electroplating Corp.

Groundwater is the sole source of water for public water supplies in Suffolk County. East Farmingdale Water District (EFWD) is one of the public water supplier that serves the areas located within four miles of the U.S. Electroplating Corp. site.

East Farmingdale Water District (EFWD)

There are a total of 5 active wells located within four miles of the U.S. Electroplating Corp. site. Within four miles of the site, all of the wells tap the Magothy Aquifer. EFWD utilizes a total of 5 wells that serve 2,200 connections. The EFWD distribution is interconnected. No well contributes more than 40% of the total system flow.

EFWD Apportionment Calculation

Population served = 2,200 * 2.94 = 6,468 people

(6,468 people) / (5 wells) = 1,294 people/well

Magothy Aquifer

Distance From Site	No. of Wells	Population Served by EFWD
0 - ¼ mile	0	0
¼ - ½ mile	0	0
½ - 1 mile	0	0
1 - 2 mile	2	2588
2 - 3 mile	3	3882
3 - 4 mile	0	0
0 - 4 mile	5	6470

ARCS II CONTRACT 68-W9-0051
MALCOLM PIRNIE, INC.
RECORD OF TELEPHONE CONVERSATION/AGREEMENT

File No. 8003-450

Date: October 13, 1995 Time: 3:00 AM [ ] PM [X]

Outgoing Call

To: Steve Klein (516)-249-4211 Telephone No.

Affiliation: East Farmingdale Water District

Malcolm Pirnie Staff: Bernard Pierre (609) 860-0100 Telephone No.

Summary of Conversation:

I contacted Mr. Klein in order to confirm information previously gathered for this water district. Mr. Klein confirmed the following information:

The East Farmingdale Water District utilizes five wells to supply potable water to 2,200 connections. Two of the wells are located at the intersection of Route 109 and New Highway. A third well is located at the intersection of Route 110 and Melville Road. A fourth well is located at 72 Gazza Boulevard. A fifth well is located at the intersection of Route 110 and Smith Road. All five of the wells tap the Magothy Aquifer. None of the wells supplies greater than 40% of the total water to the system.

MALCOLM PIRNIE, INC.			PROJECT NOTE
TO:	Project File	DATE:	October 13, 1995
FROM:	Bernard Pierre	PROJECT #:	8003-450
SUBJECT:	Population on Groundwater	SITE NAME:	U.S. Electroplating Corp.

Groundwater is the sole source of water for public water supplies in Suffolk County. South Farmingdale Water District (SFWD) is one of the public water supplier that serves the areas located within four miles of the U.S. Electroplating Corp. site.

South Farmingdale Water District (SFWD)

There are a total of 4 active wells located within four miles of the U.S. Electroplating Corp. site. Within four miles of the site, all of the wells tap the Magothy Aquifer. SFWD utilizes a total of 11 wells that serve 12,500 connections. The SFWD distribution is interconnected. No well contributes more than 40% of the total system flow.

SFWD Apportionment Calculation

Population served = 12,500 * 2.94 = 36,750 people

(36,750 people) / (11 wells) = 3,341 people/well

Magothy Aquifer

Distance From Site	No. of Wells	Population Served by SFWD
0 - ¼ mile	0	0
¼ - ½ mile	0	0
½ - 1 mile	0	0
1 - 2 mile	0	0
2 - 3 mile	0	0
3 - 4 mile	4	13364
0 - 4 mile	4	13364

ARCS II CONTRACT 68-W9-0051
MALCOLM PIRNIE, INC.
RECORD OF TELEPHONE CONVERSATION/AGREEMENT

File No. 8003-286

Date: October 16, 1995 Time: 3:00 AM [] PM [X]

Outgoing Call

To: Al Licci (Superintendent) (516) 249-3330
Telephone No.

Affiliation: South Farmingdale Water Department

Malcolm Pirnie Staff: Bernard Pierre (609) 860-0100
Telephone No.

Summary of Conversation:

I phoned Mr. Licci to confirm the information obtained in a phone conversation between Mr. Licci and Mr. Jang on December 27, 1994. Mr. Licci confirmed that South Farmingdale serves 12,500 connections with water withdrawn from eleven supply wells. He also confirmed that all the wells are interconnected and no one well pumps greater than 40% of the annual pumpage. The wells are completed in the Magothy Formation Aquifer.

SOUTH FARMINGDALE WATER DISTRICT

TOWN OF OYSTER BAY, NASSAU COUNTY, N.Y.

PLAN OF

DISTRIBUTION SYSTEM

SCALE: 1 INCH = 600 FEET

H2M GROUP

HOLZMACHER, McLENDON & MURRELL, P.C.
CONSULTING ENGINEERS
575 BROADHOLLOW RD.
MELVILLE, N.Y.

DATE:			
OCT.	1968	AUG	1981
JAN.	1969	MAY	1982
MAY	1969	FEB.	1983
MARCH	1970	APR	1983
APRIL	1971	DEC.	1984
JAN.	1972	APRIL	1985
AUG.	1973	NOV.	1985
APRIL	1974	JAN.	1986
DEC.	1975	JAN.	1987
JUNE	1979	JUNE	1989
MARCH	1981	JAN	1991
JAN		AUG.	1991
REV.:		APR.	199

LEGEND

HYDRANT 234 — TEE — FUTURE HYDRANT

VALVE & NUMBER — MAIN SIZE

WATER DISTRICT BOUNDARY

VALVE BOOK BOUNDARIES

1.0 MILLION GALLON ELEVATED STORAGE

0.6 MILLION GALLON GROUND STORAGE

MASSAPEQUA WATER DISTRICT

BOARD OF COMMISSIONERS
1992

GERARD F. McCORMACK ~ CHAIRMAN

TREASURER

Book A LAST № 307

Book C LAST № 196

Book D LAST № 230

SOUTHERN STATE PKWY.

BETHPAGE STATE PKWY.

SUNRISE HWY.

ELLSWORTH W. ALLEN SITE

INTERCONNECTION WITH MASSAPEQUA WATER DISTRICT

INTERCONNECTION WITH NEW YORK WATER SERVICE (METER)

INTERCONNECTION WITH VILLAGE OF FARMINGDALE (METER)

INTERCONNECTION WITH MASSAPEQUA WATER DISTRICT

DISTRICT LINE REVISED JUNE 1951

VILLAGE OF MASSAPEQUA PARK

MASSAPEQUA STATE PARK

TOWN OF OYSTER BAY

TOWN OF HEMPSTEAD

NEW YORK WATER SERVICE

SEAFORD OYSTER BAY EXPRESSWAY

STATE PARKWAY

SOUTHERN STATE PARKWAY

BETHPAGE STATE PARKWAY

JERUSALEM AVE. (RT. 105)

BROADWAY

HICKSVILLE RD. (RT. 107)

(RT. 135)

STEWART AVE.

MAIN ST.

STAPLE ST.

NASSAU SUFFOLK RD.

FARMINGDALE RD.

CARMANS ROAD

A

B

C

D

1

2

3

4

5

6

SITE LOCATION
#18
#7-1
#7-2
TITLE:
FOUR-MILE VICINITY MAP
SITE NAME:
U.S. ELECTROPLATING
WEST BABYLON, SUFFOLK COUNTY, NEW YORK
DATE: July 6, 1995
SCALE: 1" = 2000'
REPORT NUMBER: 8003-450
USGS TOPO NAME:
AMITYVILLE, NEW YORK

MALCOLM PIRNIE, INC.			PROJECT NOTE
TO:	Project File	DATE:	October 13, 1995
FROM:	Bernard Pierre	PROJECT #:	8003-450
SUBJECT:	Population on Groundwater	SITE NAME:	U.S. Electroplating Corp.

Groundwater is the sole source of water for public water supplies in Suffolk County. Plainview Water Department (PWD)is one of the public water supplier that serves the areas located within four miles of the U.S. Electroplating Corp. site.

Plainview Water District (PWD)

There are a total of 4 active wells located within four miles of the U.S. Electroplating Corp. site. Within four miles of the site, all of the wells tap the Magothy Aquifer. PWD utilizes a total of 11 wells that serve 10,000 connections. The PWD distribution is interconnected. No well contributes more than 40% of the total system.

PWD Apportionment Calculation

Population served = 10,000 * 2.94 = 29,400 people

(29,400 people) / (11 wells) = 2,673 people/well

Magothy Aquifer

Distance From Site	No. of Wells	Population Served by PWD
0 - ¼ mile	0	0
¼ - ½ mile	0	0
½ - 1 mile	0	0
1 - 2 mile	0	0
2 - 3 mile	0	0
3 - 4 mile	4	10692
0 - 4 mile	4	10692

ARCS II CONTRACT 68-W9-0051
MALCOLM PIRNIE, INC.
RECORD OF TELEPHONE CONVERSATION/AGREEMENT

File No: 8003-450

Date: October 15, 1995 Time: 2:45 AM [ ] PM [X]

Outgoing Call

To: Mr. Sal Lupis (516) 931-6469
Telephone No.

Affiliation: Plainview Water Department

Malcolm Pirnie Staff: Bernard Pierre (609) 860-0100
Telephone No.

Summary of Conversation:

I phoned Mr. Lupis to confirm the information obtained during a telephone conversation between Mr. Lupis and Jin Ho Jang on December 23, 1994. Mr. Lupis stated that the Plainview Water Department (PWD) obtains its drinking water from 11 wells. Mr. Lupis stated that the PWD serves approximately 10,000 connections. No one well serves more than 40 % of the water supply. The supply wells are completed in the Magothy Formation Aquifer. I then enquired into the location of the wells. Mr. Lupis proceeded to describe the locations of the wells. It became apparent that only the Cran5 wellfield is located within 4 miles of the site. There are 4 wells in the Cran5 wellfield, which is located on Winding Road (near to Serpentine Road).

ARCS II CONTRACT 68-W9-0051
MALCOLM PIRNIE, INC.
RECORD OF TELEPHONE CONVERSATION/AGREEMENT

File No. 8003-286

Date: December 23, 1994 Time: 11:25 AM [] PM []

Outgoing Call

To: Sal Lupis (Assistant Superintendent) (516) 931-6469
Telephone No.

Affiliation: Plainview Water Department

Malcolm Pirnie Staff: Jin Ho Jang JHJ. (609) 860-0100
Telephone No.

Summary of Conversation:

I phoned Mr. Lupis in order to verify the current conditions of the Plainview Water Department (PWD) groundwater supply system. Mr. Lupis stated the PWD system serves approximately 10,000 connections from eleven supply wells. The wells are all interconnected and used on a regular basis. Depending on the season some wells are used more often than others. Mr. Lupis stated that no one well pumps more than 40% of the water supply. The supply wells are completed in the Magothy Formation Aquifer.

Ref. No. 44, p. 1 of 1

ARCS II CONTRACT 68-W9-0051
MALCOLM PIRNIE, INC.
RECORD OF TELEPHONE CONVERSATION/AGREEMENT

File No. 8003-286

Date: April 4, 1995 Time: 4:07 AM [] PM []

Outgoing Call

To: Sal Lupis, Assistant Superintendent (516)-931-6469 Telephone No.

Affiliation: Plainview Water Department

Malcolm Pirnie Staff: Lisa Greco Lisa Greco (609) 860-0100 Telephone No.

Summary of Conversation:

I contacted Mr. Lupis in order to find out where the wells they operate are located. He gave me the following locations for the wells:

1) **Cran5 - 4 wells are located here. This is located on Winding Road. The nearest cross street is Serpentine Road.**

2) **Plant 1 - 2 wells are located here. This is located on Mannetto Hill Road, approximately 50 feet north of Old Country Road.**

3) **Plant 2 - 1 well is located here. This is located at the intersection of Donna Drive and Gilbert Lane.**

4) **Plant 4 - 2 wells are located here. This is located on Southern Parkway (just a side street, not really a parkway), in between Jerold, Lakeville Road, and Arthur.**

5) **Plant 3 - 2 wells are located here. This is located at the intersection of Orchard Street and Atwood. These wells are located near two schools, and are located approximately 60 feet south of Nassau Avenue. In addition, Ridgefield backs part of the property.**

In addition, Mr. Lupis informed me that a new plant is being built on Washington Street. Currently, a well is in the process of being drilled there.

Ref. No. 45, p. 1 of 1

MALCOLM PIRNIE, INC.			PROJECT NOTE
TO:	Project File	DATE:	October 13, 1995
FROM:	Bernard Pierre	PROJECT #:	8003-450
SUBJECT:	Population on Groundwater	SITE NAME:	U.S. Electroplating Corp.

Groundwater is the sole source of water for public water supplies in Suffolk County. Suffolk County Water Authority (SCWA) is one of the public water supplier that serves the areas located within four miles of the U.S. Electroplating Corp. site.

Suffolk County Water Authority (SCWA)

Thirteen SCWAs' well fields, containing a total of 29 active wells, are located within four miles of the U.S. Electroplating Corp. site. Within four miles of the site, 28 wells tap the Magothy aquifer, and the remaining well taps the Upper Glacial Aquifer. SCWA utilizes a total of 404 wells to supply drinking water to a total population of 937,390. The SCWA distribution is interconnected.

SCWA Apportionment Calculation
(937,390 people) / (404 wells) = 2,320 people/well

Upper Glacial Aquifer

Distance From Site	No. of Wells	Population Served by SCWA
0 - ¼ mile	0	0
¼ - ½ mile	0	0
½ - 1 mile	0	0
1 - 2 mile	1	2320
2 - 3 mile	0	0
3 - 4 mile	0	0
0 - 4 mile	1	2320

Magothy Aquifer

Distance From Site	No. of Wells	Total Population Served
0 - ¼ mile	0	0
¼ - ½ mile	0	0
½ - 1 mile	0	0
1 - 2 mile	9	20880
2 - 3 mile	13	30160
3 - 4 mile	6	13920
0 - 4 mile	28	64960

TOTALS FOR THE SITE

Distance From Site	No. of Wells	Total Population Served
0 - ¼ mile	0	0
¼ - ½ mile	0	0
½ - 1 mile	0	0
1 - 2 mile	10	23200
2 - 3 mile	13	30160
3 - 4 mile	6	13920
0 - 4 mile	29	67280

Suffolk County Water Authority

1993 Annual Report

22

	For Fiscal Year Ended May 31 1993	1984	10-Year Growth	Percent Increase
Customers	308,352	250,544	57,808	23%
Population Served	1,112,832	826,000	286,832	35%
Miles of Main	4,564	3,645	919	25%
Fire Hydrants	28,181	23,474	4,707	20%
Water Pumped (billion gallons)	46.5	42.2	4.3	10%
Employees	586	440	146	33%
Gross Revenues	$ 72,577,000	$ 43,479,000	$ 29,098,000	67%
Operating and Maintenance Expense, Except Depreciation	46,330,000	23,967,000	22,363,000	93%
Water Plant at Cost	593,436,000	289,210,000	304,226,000	105%
Bonded Indebtedness	274,325,000	131,009,000	143,316,000	109%
Total Earnings in the Business at the Close of Period	$133,349,000	$79,977,000	$53,372,000	67%

Water Quality Improvements

The Authority is about to launch two pilot programs, both firsts for the Authority, which deal with the inorganic compound, nitrate, which we are finding in higher amounts generally on Long Island, and iron, a natural constituent of the water in some parts of the County. There are currently several well sites where the level of nitrates is slowly increasing, although none of these wells exceed New York State's stringent water standard for this inorganic compound. Nitrates in water is usually associated with fertilizers and some organic wastes.

In anticipation of potentially exceeding the standard in the near future requiring shut-down of wells important to the system and the trend we are seeing for higher nitrates generally on Long Island, the Authority will construct a "pilot" denitrification plant in Fort Salonga within the year. The site selected, the Middleville Road Pump Station, is an important well field where the well capacity is needed and the levels of nitrates are approaching the limit. We will be utilizing a proven technology recommended by the Suffolk County Department of Health Services. This plant will serve as a model for any future plants that may be needed. The equipment will be below grade and as unobtrusive as possible to the host community, resembling the small pump station buildings currently at our sites.

Iron in water, often referred to as rusty or brown water, continues to be the subject of complaint from our customers in some areas of the County where iron is a natural component of the water. While iron in drinking water has not been deemed a health hazard by the regulators, it presents other problems and inconveniences to the water consumer. It is unappealing aesthetically and stains clothing and plumbing fixtures. The Authority has employed a number of strategies to mitigate the problem from the use of sequestering agents (to hold the iron in solution) to a systematic flushing program, which has been somewhat successful in some areas.

Heretofore, the technology to remove iron in drinking water, which required large tracts of land, was relatively new, unproven and extremely cost prohibitive. However, more recently, the technology and the costs associated with it have improved significantly. Therefore in 1994, the Authority will construct its first iron removal plant at the Harvest Lane Pump Station in West Islip. The location of this site is ideal because it is somewhat set apart from neighboring SCWA wells making monitoring of the reduction in iron easier to determine.

Based on the experimental results of this plant and the construction costs incurred, the Authority will evaluate this project and will make a decision on proceeding with similar projects where iron is a source of inconvenience to our customers.

Legislative Watch

Like many businesses today, we realize that it is important to keep abreast of governmental legislative agendas that pertain to one's industry. In fact, it would be a serious omission of responsibility to one's customers to do otherwise. The SCWA, of course, is supportive of legislation and programs that effectively and necessarily ensure the best quality water for all public consumers. We have demonstrated that support on a continual basis.

Public education efforts are continual. Billing inserts, annual water supply statements, tours of our facilities, contests with water conservation and protection themes for school children, the Source Reduction Program and seminars and workshops, etc., all serve as a means of conveying information to the public. We believe that expending efforts to inform our customers is the best way to sustain the public's confidence as well as to maintain the integrity of the water source.

We have much to be proud of at the Suffolk County Water Authority, but our single greatest asset is our employees. At the end of the fiscal year the Authority had 586 full time employees and the Board Members and I want to thank them all for the important accomplishments achieved during the year. We look forward to the future with renewed enthusiasm and commitment to providing the best quality water and service to our customers at the most reasonable price possible.

Sincerely,

Michael A. LoGrande

MICHAEL A. LoGRANDE
Chairman / Chief Executive Officer

Plant Facilities 1992-1993

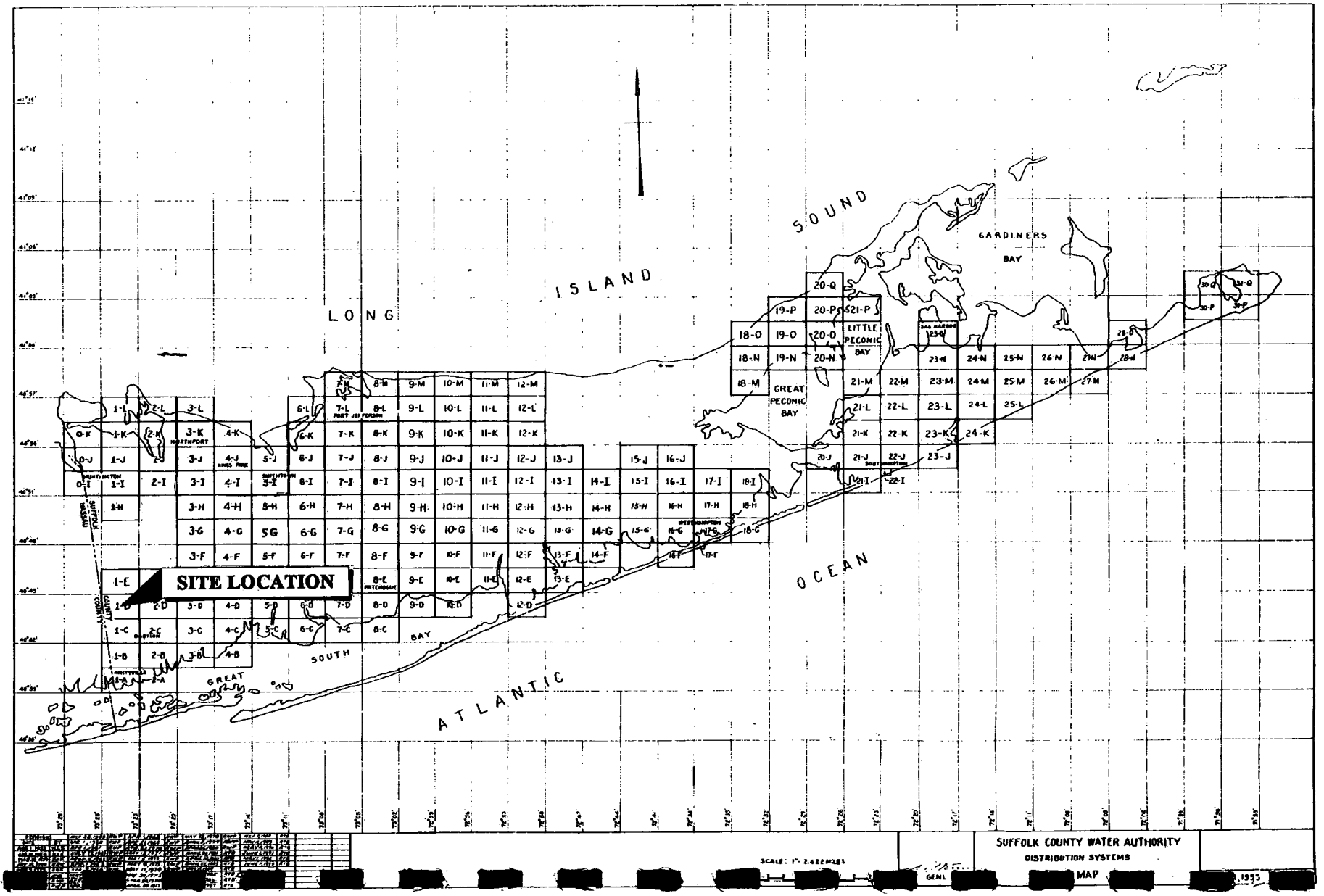
Service Areas of Plants	WELLS Active		WELLS Inactive		Pumping Plants No.		Pumping Plants Capacity - 1,000 Gallons Daily*		Storage Facilities No.		Storage Facilities 1,000 Gallons		Active Services	
BABYLON	48	46	3	0	19	19	80,928	80,928	7	7	7,220	7,220	56,088	56,080
BAY SHORE	48	48	12	9	21	21	91,872	91,872	7	7	6,012	6,012	50,389	50,433
PATCHOGUE	71	71	5	5	29	29	115,776	115,776	12	11	12,465	12,230	62,009	62,402
HUNTINGTON	54	54	2	2	22	22	67,104	67,104	11	11	11,842	11,842	30,743	30,716
PT. JEFFERSON	68	72	5	4	30	33	112,464	116,064	8	9	7,854	8,854	41,419	43,173
SMITHTOWN	45	45	3	3	20	20	83,520	83,520	6	6	6,100	6,100	25,598	25,811
WESTHAMPTON	34	35	0	0	14	14	28,800	29,808	4	4	4,050	4,050	20,887	22,220
EAST HAMPTON	33	33	4	3	19	19	26,280	26,388	5	5	5,720	5,720	12,416	13,717
TOTALS	401	404	34	26	174	177	606,744	611,460	60	60	61,263	62,028	299,549	308,352

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

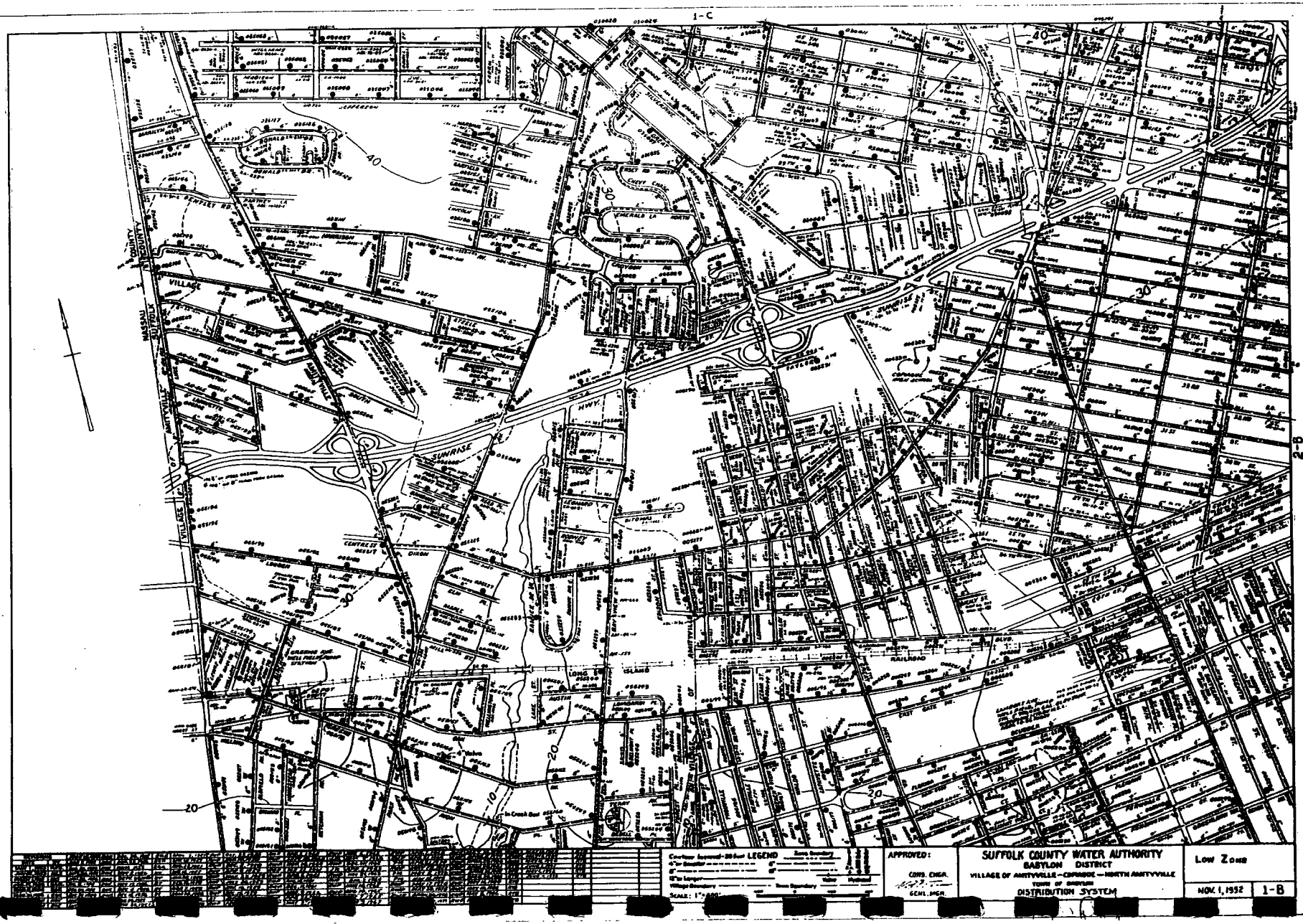
AS OF MAY 31, 1992 ☐ AS OF MAY 31, 1993 ☐

Highlights 1992-1993

	May 31 1993	May 31 1992
Total Revenues	$ 72,577,000	$ 74,506,000
Operating and Maintenance Expense except depreciation	46,330,000	46,577,000
Interest on Bonds and Notes: including amortization of debt discount and expense	12,624,000	13,158,000
Depreciation	10,199,000	9,747,000
Revenues Invested in Facilities for the year	(17,255,000)	5,024,000
Revenues Invested in Facilities (since June 1, 1951)	133,349,000	150,604,000
Total Water Plant at Cost	593,436,000	549,719,000
Net Additions to Water Plant	43,717,000	32,971,000
Customers (Active Services)	308,352	299,549
Miles of Main in Service	4,564	4,375
Fire Hydrants in Service	28,181	27,216
Water Production (Billion Gallons)	46.5	50.6

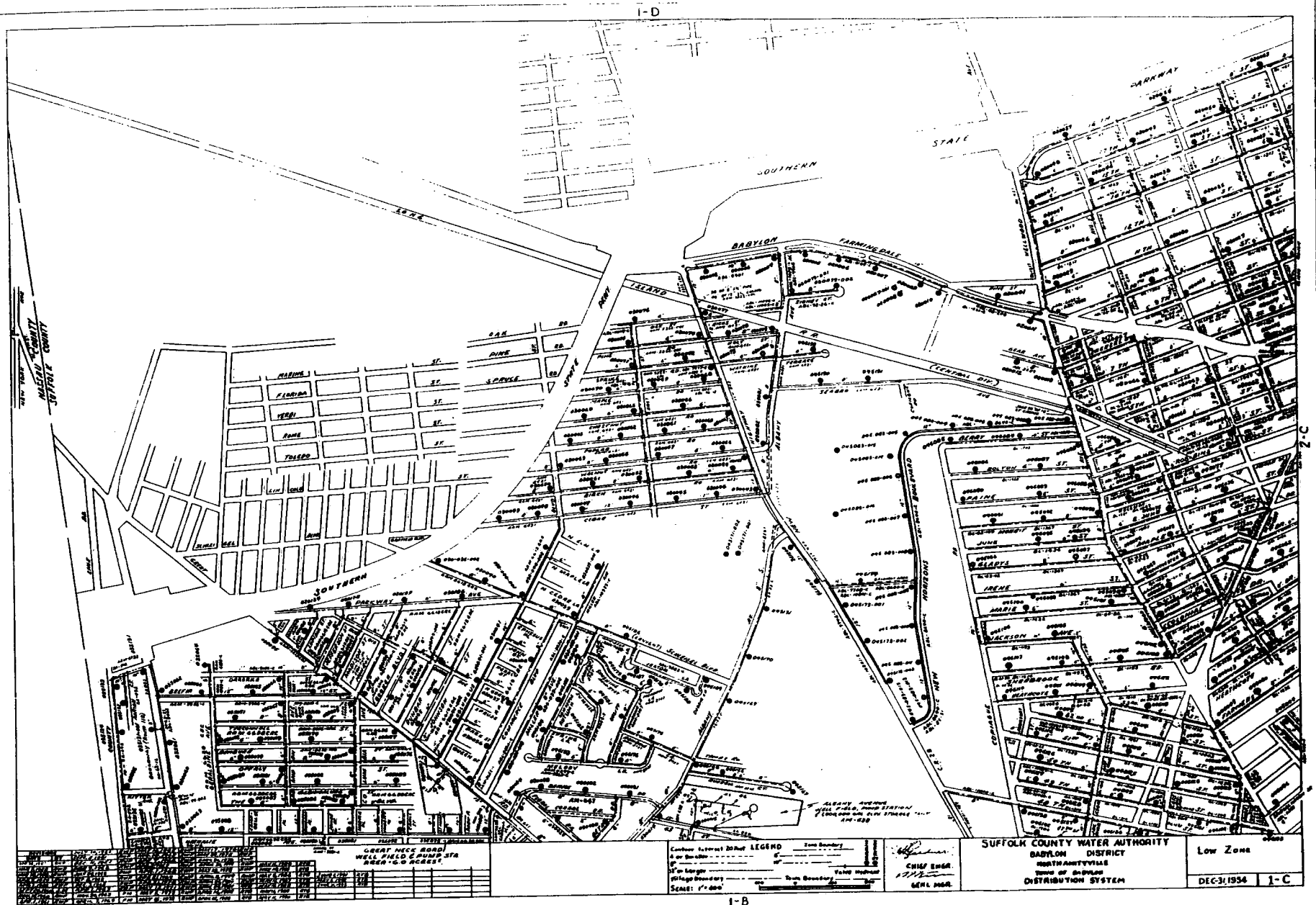

SITE LOCATION
LONG ISLAND SOUND
GARDINERS BAY
LITTLE PECONIC BAY
GREAT PECONIC BAY
GREAT SOUTH BAY
ATLANTIC OCEAN
SUFFOLK COUNTY WATER AUTHORITY
DISTRIBUTION SYSTEMS
MAP
1995

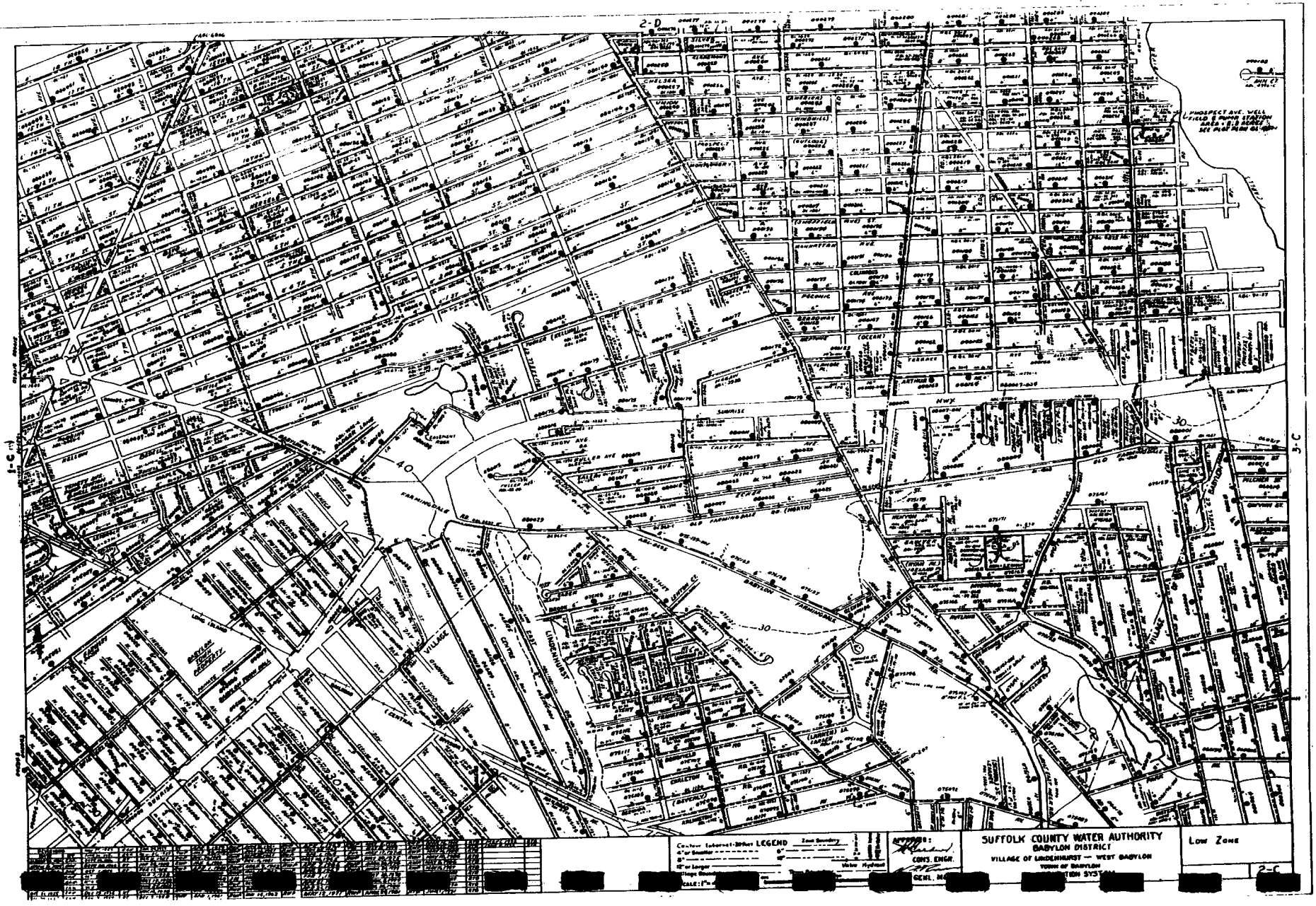
26


1-C
2-B
SUNRISE
HWY.
VILLAGE
COUNTY
NASSAU
AMITYVILLE
RAILROAD
LEGEND
APPROVED:
CONS. ENGR.
GEN'L. MGR.
SUFFOLK COUNTY WATER AUTHORITY
BABYLON DISTRICT
VILLAGE OF AMITYVILLE—CENTRAL—NORTH AMITYVILLE
TOWNS OF BABYLON
DISTRIBUTION SYSTEM
LOW ZONE
NOV. 1, 1952
1-B

2-C
1-B
3-B
LONG ISLAND RAILROAD
CENTRAL DIVISION
VILLAGE
BABYLON
SOUTH BAY SHOPPING CENTER
LEGEND
APPROVED:
CONS. ENGR.
GENL. MGR.
SUFFOLK COUNTY WATER AUTHORITY
BABYLON DISTRICT
VILLAGE OF LINDENHURST - WEST BABYLON - VILLAGE OF BABYLON
TOWN OF BABYLON
DISTRIBUTION SYSTEM
LOW ZONE
NOV. 1, 1952
2-B

28

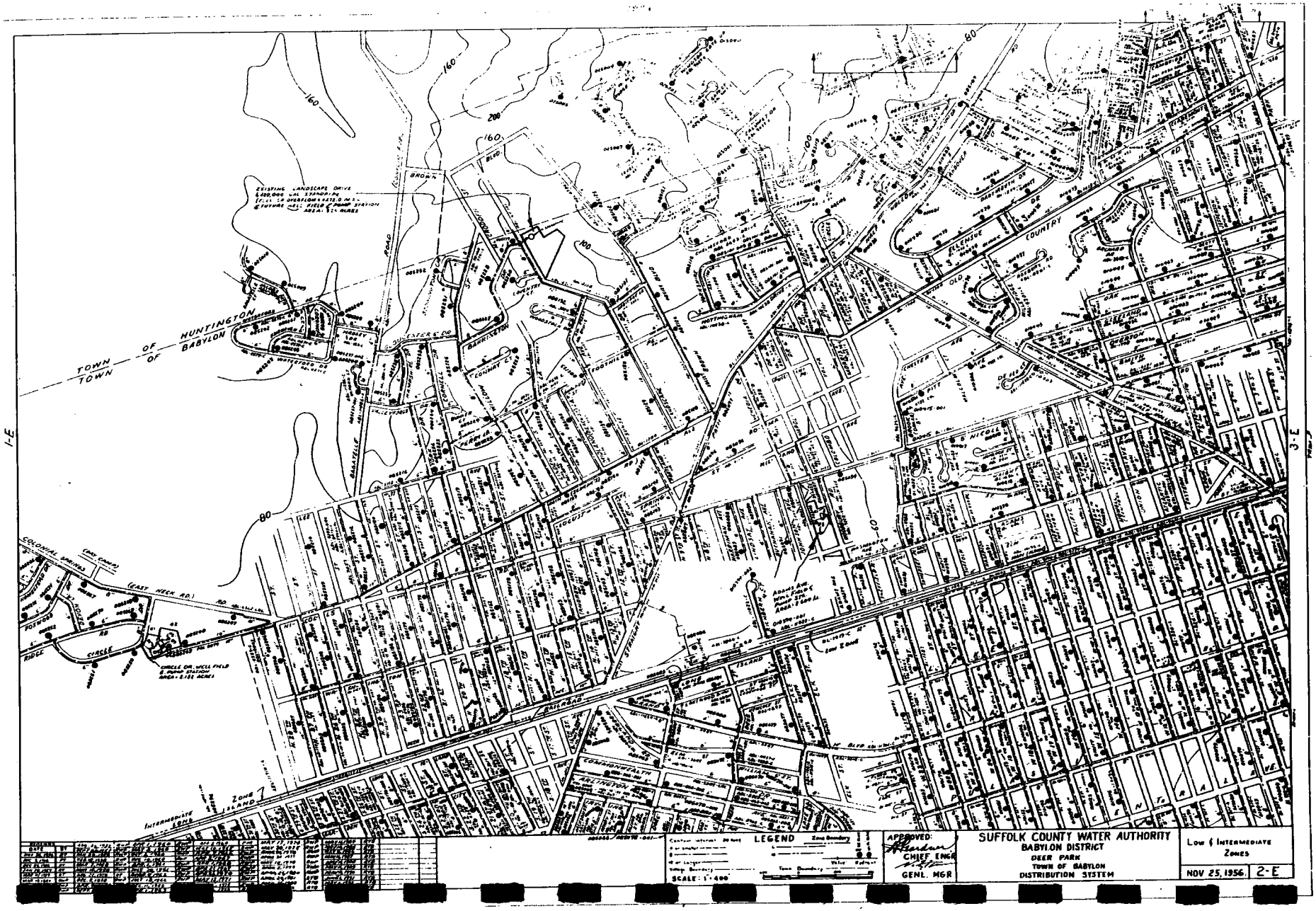

1-D
1-B
1-C
2-C
SOUTHERN
STATE
PARKWAY
BABYLON
FARMINGDALE
ISLAND
PINE
OAK
SPRUCE
MARINE
FLORIDA
VERDI
ROME
TOLEDO
SOUTHERN
PARKWAY
SHORE
DRIVE
JUNE
IRENE
MARIE
JACKSON
NASSAU COUNTY
SUFFOLK COUNTY
GREAT NECK ROAD
WELL FIELD & PUMP STA
SUFFOLK COUNTY WATER AUTHORITY
BABYLON DISTRICT
NORTH AMITYVILLE
TOWN OF BABYLON
DISTRIBUTION SYSTEM
Low Zone
DEC-31-1954
1-C
CHIEF ENGR.
SENL ENGR.
LEGEND
SCALE: 1"=200'

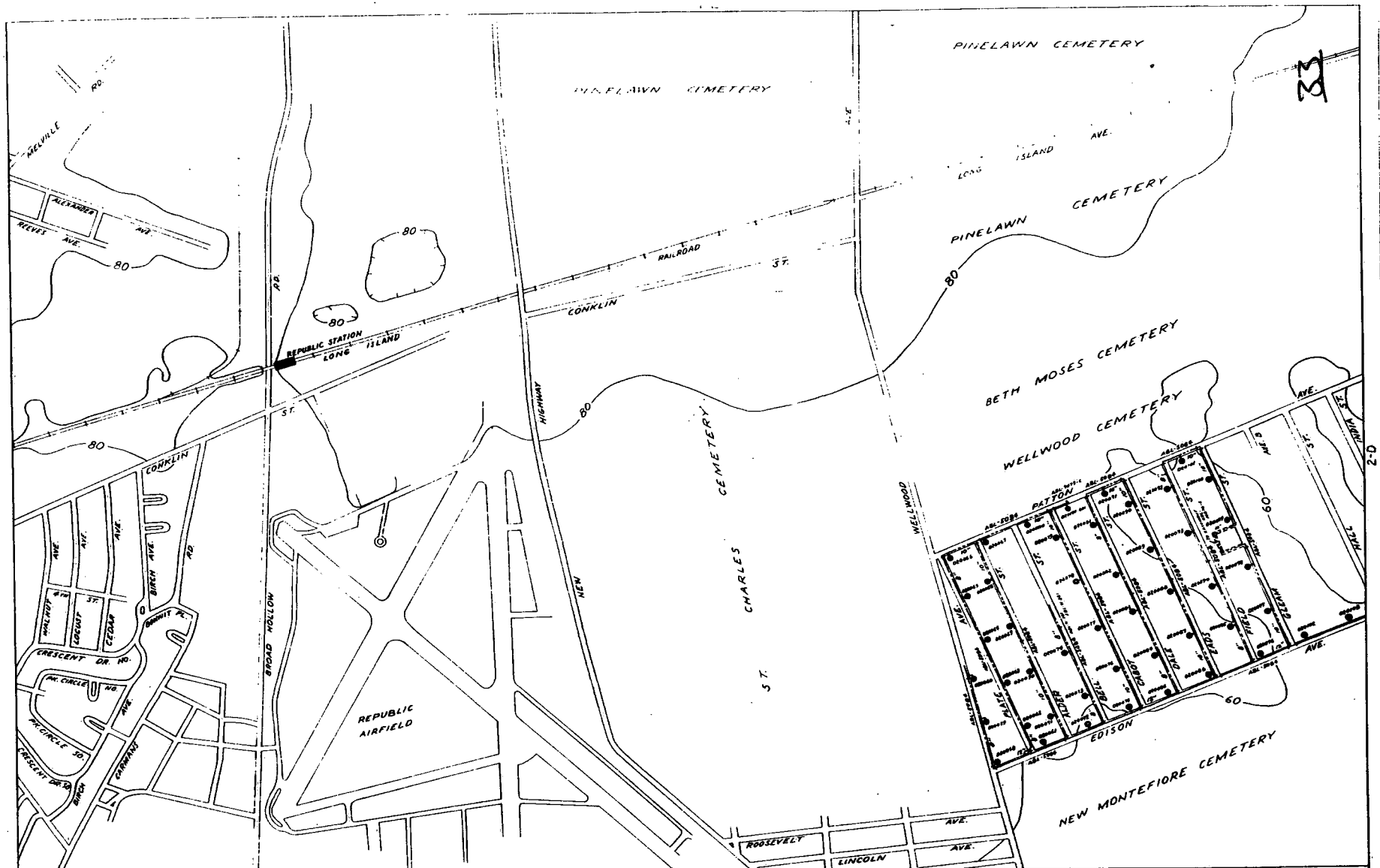

SUFFOLK COUNTY WATER AUTHORITY
BABYLON DISTRICT
VILLAGE OF LINDENHURST — WEST BABYLON
TOWN OF BABYLON
LEGEND
LOW ZONE
CONS. ENGR.
GENL. M
2-D
3-C
2-C
LINDENHURST
VILLAGE
FARMINGDALE
SUNRISE
HWY
PROSPECT AVE. WELL
FIELD & PUMP STATION
AREA 1 & 2 HOMES
SEE PLAN FOR DETAIL

3-D
2-C
4-C
SOUTHGATE SHOPPING CENTER
VILLAGE OF BABYLON
LEGEND
SCALE: 1" = 400'
APPROVED:
CONS. ENGR.
GEN'L. MGR.
SUFFOLK COUNTY WATER AUTHORITY
BAY SHORE DISTRICT
VILLAGE OF BABYLON — WEST HELIP
TOWN OF BABYLON — TOWN OF HELIP
DISTRIBUTION SYSTEM
LOW ZONE
NOV. 1, 1952
3-C

31

2-E
1-D
3D
PATTON
AVE
LINCOLN
DAVIDSON
BOOKER
AVE.
STATE
SWORD
MARCLAY
COURT
ALICE
ST.
WYANDANCH AVE
BELMONT
LAKE
PKWY
EDISON
SOUTHERN
GORDON AVENUE SITE
WELL FIELD & PUMP STATION
AREA 3.8 ACRES
W-3
LEGEND
APPROVED
CHIEF ENGR
SUFFOLK COUNTY WATER AUTHORITY
BABYLON DISTRICT
NORTH BABYLON - DEER PARK
TOWN OF BABYLON
LOW ZONE
SCALE 1"
GENL M
TION S
DEC. 12, 1956


TOWN OF HUNTINGTON
TOWN OF BABYLON
BROWN ROAD
COUNTRY
OLD
ELLENDUE
NICOLL
COLONIAL SPRING
(EAST NECK RD.)
RIDGE
CIRCLE
FAIRFAX
COMMONWEALTH
ARLINGTON
ISLAND
ZONE 1
INTERMEDIATE ZONE
LEGEND
SCALE: 1"=400'
APPROVED:
CHIEF ENGR
GENL. MGR
SUFFOLK COUNTY WATER AUTHORITY
BABYLON DISTRICT
DEER PARK
TOWN OF BABYLON
DISTRIBUTION SYSTEM
LOW & INTERMEDIATE ZONES
NOV 25, 1956
2-E



REVISIONS									
2011									
2011									
2011									

RUN DATE: 11/10/93 @ 18:32 SCWA Production Control Department

BUS DATE: 11/10/93 D.E.C. PRODUCTION REPORT PRODCTN PAGE

PERIOD: 10/93 ZONE: 3 WYANDANCH INT

PUMP STATION	PUMPAGE (THOUSANDS)	AVERAGE FLOW (GPM)	WELL NO	OPERATING HOURS	AQUIFER	KTS WELL NUMBER
ADAMS AV	14,165	1,049	1	128	M	S-034030
			2	97	M	S-034031
CIRCLE DR	14,435	680	1	224	G	S-020052
			2	250	M	S-030300
			3	205	M	S-030506
			4	163	M	S-048193
PLYMOUTH ST	14,170	971	1	123	M	S-018761
			2	D/S	G	S-018762
			3	120	M	S-022840

ZONE: 3 STATIONS LISTED: 3 42,770

PEAK DAY FOR ZONE 2,651,000 GALLONS ON 10/03/93

34

RUN DATE: 11/10/93 8:18:32 SCWA Production Control Department

BUS DATE: 11/10/93 D.E.C. PRODUCTION REPORT PRODCTN PAGE

PERIOD: 10/93 ZONE: 2 EMJAY INT

PUMP STATION	PUMPAGE (THOUSANDS)	AVERAGE FLOW (GPM)	WELL NO	OPERATING HOURS	AQUIFER	MTR WELL NUMBER
EMJAY BL	39,034	937	1	227	M	S-023445
			2	360	M	S-031104
			3	107	M	S-057008

ZONE: 2 STATIONS LISTED: 1 39,034

PEAK DAY FOR ZONE 1,775,000 GALLONS ON 10/26/93

35

RUN DATE: 11/10/93 @ 10:32 SCWA Production Control Department

BUS DATE: 11/10/93 D.E.C. PRODUCTION REPORT PRODCTN PAGE

PERIOD: 10/93 ZONE: 1 SOUTH SHORE LOW

PUMP STATION	PUMPAGE (THOUSANDS)	AVERAGE FLOW (GPM)	WELL NO	OPERATING HOURS	AQUIFER	NYS WELL NUMBER
12TH ST	820	1,138	2	0/S	M	S-031487
			3	2	M	S-040330
			4	10	M	S-051437
41ST ST	40,268	1,145	4	288	M	S-045839
			5	298	M	S-064847
5 TH AV	5,718	1,013	32	0/S	M	S-028344
			33	41	M	S-028535
			34	53	M	S-071030
ALBANY AV	35,142	1,126	4	0/S	M	S-034595
			5	266	M	S-047896
			6	254	M	S-043205
ALBIN AV	41,198	1,034	9	27	M	S-020988
			10	608	M	S-031038
			11	29	M	S-066657
ALGONQUIN RD	34,844	1,186	2	72	M	S-018250
			3	37	M	S-020635
			4	737	M	S-037881
BANANA ST	15,534	485	4	76	M	S-039531
			5	457	M	S-054957
BARTON AV	49,453	920	1	311	G	S-031247
			2	0/S	G	S-028707
			3	270	M	S-037494
			4	314	M	S-062022
BAY SHORE RD	6,296	1,399	1	46	M	S-059347
			2	29	M	S-072917
BELLMORE AV	25,722	1,214	1	19	G	S-019565
			2	272	G	S-020479
			3	45	M	S-027533
			4	17	M	S-069024
BLUE POINT RD	63,379	983	1	143	G	S-038320
			2	377	M	S-038321
			3	227	M	S-042761
			4	327	G	S-053074

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RUN DATE: 11/10/93 @ 18:32 SCWA Production Control Department

BUS DATE: 11/10/93 D.E.C. PRODUCTION REPORT PRODCTN PAGE

PERIOD: 10/93 ZONE: 1 SOUTH SHORE LOW

PUMP STATION	PUMPAGE (THOUSANDS)	AVERAGE FLOW (GPM)	WELL NO	OPERATING HOURS	AQUIFER	NYS WELL NUMBER
BROOK AV	36,790	1,272	1A	8	M	S-098523
			2	172	M	S-025617
			3	147	M	S-034714
			4	155	M	S-065463
CHINA RD	7,940	1,017	1	55	M	S-060812
			2	75	M	S-073492
CHURCH ST BOH	23,760	1,010	1	188	G	S-052126
			2	150	G	S-047871
			3	54	M	S-048553
CHURCH ST HOL	12,966	960	1	204	G	S-027259
			2	O/S	G	S-031817
			3	21	M	S-047835
EAST FORKS RD	57,033	1,218	4	263	M	S-038192
			5	517	M	S-071083
FISHER AV	29,944	1,038	1	250	M	S-035037
			2	231	M	S-037140
			3	O/S	M	S-041887
GORDON AV	46,822	1,108	1	O/S	M	S-051298
			2	704	M	S-065505
GREAT NECK RD	28,174	1,248	1	153	M	S-051214
			2	223	M	S-054568
GREENBELT PY	55,530	1,161	1	253	M	S-054730
			2	201	M	S-059744
			3	168	M	S-066183
			4	175	M	S-066184
GREENE AV	46,023	1,029	7	2	M	S-032591
			8	743	M	S-047887
HARVEST LA	39,579	1,060	1	93	M	S-021366
			2	107	M	S-022389
			3	422	M	S-039024

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PERIOD: 10/93 ZONE: 1 SOUTH SHORE LOW

PUMP STATION	PUMPAGE (THOUSANDS)	AVERAGE FLOW (GPM)	WELL NO	OPERATING HOURS	AQUIFER	NYS WELL NUMBER
HEAD OF THE NECK RD	4,805	1,380	2	16	G	S-014710
			3	42	M	S-049364
INDUSTRY CT	11,022	1,505	1	68	M	S-040497
			2	54	M	S-046830
LAFAYETTE RD	19,440	1,090	1	112	M	S-028503
			2	96	M	S-033005
			3	89	M	S-047435
LAKEVIEW AV	464	594	1	3	G	S-000872
			2	4	G	S-000871
			3	3	G	S-009839
			4	3	M	S-028409
LANDEAU AV COP	72,214	1,646	1	736	M	S-022481
LINCOLN AV	34,085	752	1	337	G	S-038701
			2	O/S	M	S-047453
			3	418	M	S-054305
LOCUST AV	16,333	745	1	O/S	G	S-020045
			2	176	G	S-022911
			3	179	G	S-034522
			4	4	M	S-067074
			5	7	M	S-068690
LOCUST DR	25,740	940	1	173	G	S-015898
			2	O/S	G	S-016175
			3	283	M	S-036460
MAPLE AVE	61,030	1,418	1	705	M	S-071705
			2	12	M	S-082422
MOFFITT BL	42,370	1,317	1	89	M	S-063610
			2	447	M	S-099960
MONTAUK HY	1,430	1,083	1	O/S	G	S-003813
			2	O/S	G	S-003815
			3	O/S	G	S-003814
			4	4	M	S-037963
			5	18	M	S-050630

RUN DATE: 11/10/93 @ 18:32 SCWA Production Control Department

BUS DATE: 11/10/93 D.E.C. PRODUCTION REPORT PRODCTN PAGE

PERIOD: 10/93 ZONE: 1 SOUTH SHORE LOW

PUMP STATION	PUMPAGE (THOUSANDS)	AVERAGE FLOW (GPM)	WELL NO	OPERATING HOURS	AQUIFER	NYS WELL NUMBER
N 5TH ST	7,000	1,143	1	102	M	S-029491
PECONIC ST	14,052	1,301	1	156	M	S-077010
SAUTER AV	58,610	1,385	2	382	M	S-010641
			3	194	M	S-040478
			4	129	M	S-051673
SMITH ST	26,964	702	6	151	M	S-021375
			7	365	M	S-034749
			8	124	M	S-045840
STATION RD LO	1,070	495	1	36	G	S-033826
			2	O/S	G	S-042499
SUNRISE HY	21,490	1,288	1	O/S	M	S-055233
			2	O/S	M	S-058784
			3	278	M	S-066429
TENEYCK AV	11,191	971	2	87	M	S-020440
			3	105	M	S-037181
THOMAS AV	533	1,110	1	8	M	S-046288
			2	O/S	M	S-050546
UNION PL	78,404	1,105	1	194	M	S-018049
			2	174	M	S-021244
			3	211	M	S-042742
WATERWORKS RD	2,027	1,089	1	31	M	S-060486
WYANDANCH AV	53,424	1,200	1	O/S	M	S-023848
			2	O/S	M	S-025674
			1A	742	M	S-076322

ZONE: 1 STATIONS LISTED: 44 1,227,155

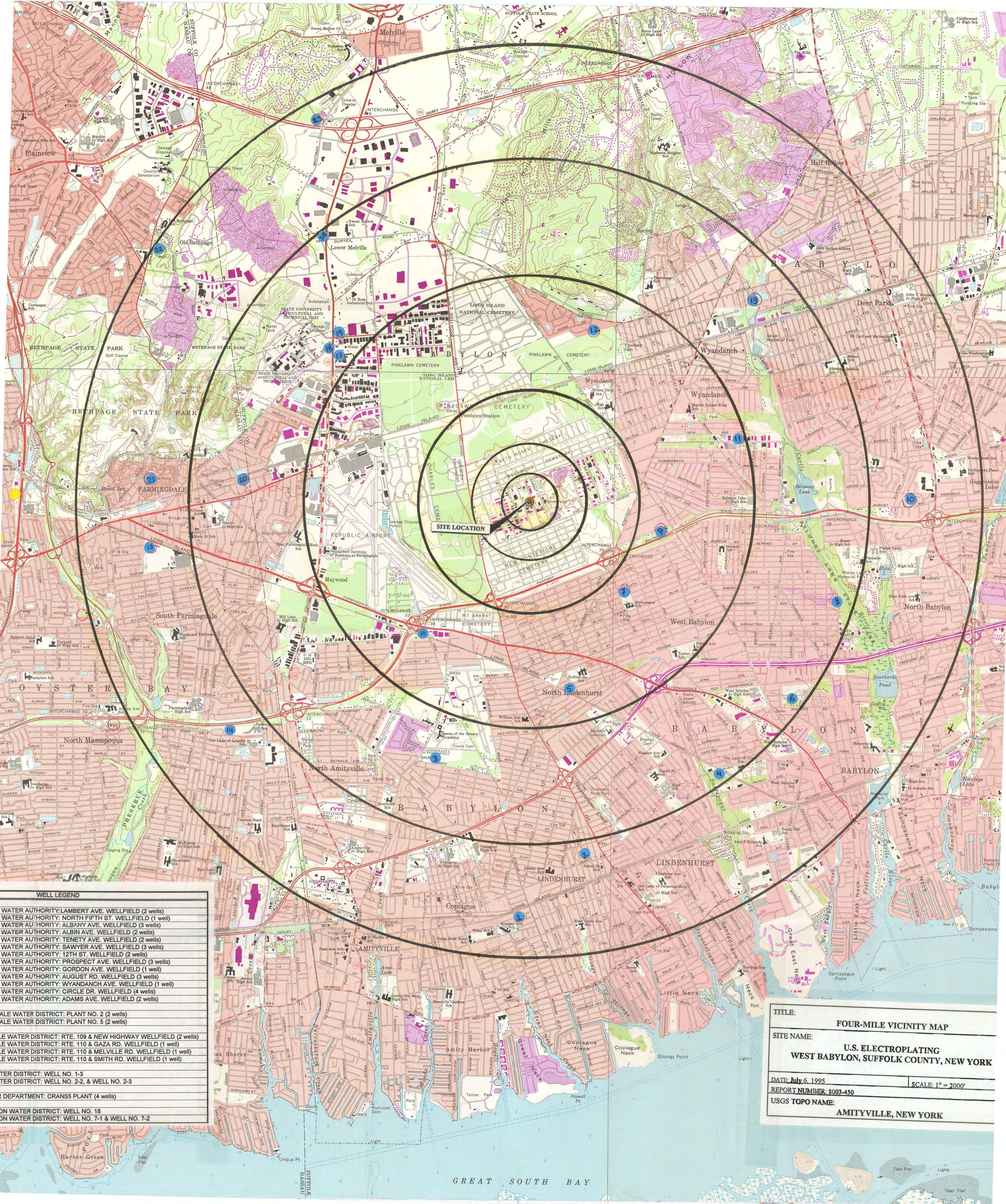
PEAK DAY FOR ZONE 48,854,000 GALLONS ON 10/10/93

Table 6. Household, Family, and Group Quarters Characteristics: 1990

[For definitions of terms and meanings of symbols, see text]

State County Place and [In Selected States] County Subdivision	Persons in households	All households	Family households: Total	Family households: Married-couple family	Family households: Female householder, no husband present	Nonfamily households: Total	Nonfamily households: Householder living alone: Total	Nonfamily households: Householder living alone: 65 years and over: Total	Nonfamily households: Householder living alone: 65 years and over: Female	Persons per— Household	Persons per— Family	Persons in group quarters: Total	Persons in group quarters: Institutionalized persons	Persons in group quarters: Other persons in group quarters
The State	**17 445 190**	**6 639 322**	**4 489 312**	**3 315 845**	**919 266**	**2 150 010**	**1 806 263**	**700 016**	**544 755**	**2.63**	**3.22**	**545 265**	**267 122**	**278 143**
COUNTY														
Albany County	278 399	115 824	71 455	54 534	13 355	44 369	35 050	13 559	10 777	2.40	3.04	14 195	4 286	9 909
Allegany County	45 639	17 011	12 318	10 231	1 466	4 693	3 943	1 927	1 478	2.68	3.15	4 831	398	4 433
Bronx County	1 163 368	424 112	288 609	146 234	118 610	135 503	119 218	46 431	35 780	2.74	3.35	40 421	28 534	11 887
Broome County	204 344	81 843	54 819	44 163	8 183	27 024	22 037	9 065	7 203	2.50	3.05	7 816	3 420	4 396
Cattaraugus County	80 833	30 456	21 657	17 395	3 228	8 799	7 543	3 651	2 789	2.65	3.18	3 401	1 035	2 366
Cayuga County	77 968	29 075	20 927	16 660	3 127	8 148	6 874	3 418	2 680	2.68	3.19	4 345	3 955	390
Chautauqua County	136 558	53 696	37 203	29 942	5 506	16 493	14 035	6 849	5 459	2.54	3.07	5 337	2 557	2 780
Chemung County	90 460	35 275	24 808	19 646	4 058	10 467	8 992	4 387	3 505	2.56	3.08	4 735	3 788	947
Chenango County	50 896	19 141	13 821	11 438	1 670	5 320	4 451	2 085	1 602	2.66	3.14	872	840	32
Clinton County	77 971	29 123	20 839	17 279	2 594	8 284	6 429	2 626	2 111	2.68	3.14	7 998	4 282	3 716
Columbia County	60 884	23 696	16 882	13 658	2 339	6 814	5 689	2 759	2 078	2.57	3.04	2 098	1 825	273
Cortland County	45 664	17 247	11 799	9 461	1 681	5 448	4 070	1 860	1 513	2.65	3.13	3 299	510	2 789
Delaware County	45 233	17 646	12 374	10 224	1 552	5 272	4 458	2 308	1 746	2.56	3.07	1 992	660	1 332
Dutchess County	240 984	89 567	64 757	53 635	8 353	24 810	19 884	7 705	6 051	2.69	3.18	18 478	11 475	7 003
Erie County	944 115	376 994	254 472	192 646	49 968	122 522	105 083	45 370	35 665	2.50	3.09	24 417	13 138	11 279
Essex County	34 824	13 721	9 498	7 805	1 204	4 223	3 520	1 682	1 280	2.54	3.07	2 328	2 223	105
Franklin County	42 549	16 284	11 265	8 976	1 677	5 019	4 197	2 064	1 612	2.61	3.16	3 991	3 012	979
Fulton County	53 276	20 995	14 602	11 601	2 242	6 393	5 412	2 894	2 281	2.54	3.05	915	700	215
Genesee County	58 858	21 614	16 050	13 269	2 054	5 564	4 671	2 312	1 840	2.72	3.19	1 202	800	402
Greene County	42 080	16 596	11 642	9 465	1 612	4 954	4 245	2 033	1 488	2.54	3.05	2 659	2 474	185
Hamilton County	5 197	2 153	1 508	1 266	170	645	550	241	172	2.41	2.89	82	82	-
Herkimer County	64 636	24 936	17 576	14 347	2 369	7 360	6 246	3 402	2 594	2.59	3.11	1 161	840	321
Jefferson County	103 614	37 851	28 163	23 155	3 680	9 688	8 005	3 772	2 996	2.74	3.19	7 329	2 589	4 740
Kings County	2 266 401	828 199	555 284	335 295	177 871	272 915	236 977	92 972	71 504	2.74	3.40	34 263	16 651	17 612
Lewis County	26 475	9 253	7 056	5 985	744	2 197	1 889	964	728	2.86	3.32	321	307	14
Livingston County	56 777	21 197	15 178	12 558	1 896	6 019	4 643	2 043	1 610	2.68	3.14	5 595	2 212	3 383
Madison County	64 006	23 567	17 162	14 137	2 176	6 405	5 050	2 326	1 808	2.72	3.17	5 114	776	4 338
Monroe County	691 387	271 944	182 813	140 622	34 008	89 131	71 166	25 702	20 400	2.54	3.11	22 581	8 405	14 176
Montgomery County	50 956	20 185	14 028	11 058	2 202	6 157	5 432	3 081	2 408	2.52	3.06	1 025	960	65
Nassau County	1 266 740	431 515	344 502	286 638	43 950	87 013	73 804	35 544	28 221	2.94	3.30	20 608	9 799	10 809
New York County	1 428 973	716 422	301 041	187 016	92 055	415 381	348 134	87 139	64 439	1.99	2.99	58 563	13 988	44 575
Niagara County	216 912	84 809	59 732	47 221	9 822	25 077	22 119	10 080	7 797	2.56	3.10	3 844	2 358	1 486
Oneida County	236 328	92 562	63 735	50 430	10 385	28 827	24 950	11 640	9 110	2.55	3.12	14 508	9 522	4 986
Onondaga County	453 012	177 898	118 575	91 978	21 081	59 323	47 047	18 082	14 374	2.55	3.12	15 961	5 859	10 102
Ontario County	92 094	34 929	25 143	20 792	3 210	9 786	7 716	3 414	2 675	2.64	3.10	3 007	1 497	1 510
Orange County	293 491	101 506	77 111	63 207	10 401	24 395	19 975	8 404	6 611	2.89	3.35	14 156	6 211	7 945
Orleans County	39 588	14 428	10 685	8 608	1 484	3 743	3 119	1 482	1 146	2.74	3.20	2 258	2 053	205
Oswego County	116 928	42 434	30 905	25 013	4 231	11 529	9 150	4 027	3 158	2.76	3.22	4 843	899	3 944
Otsego County	55 592	21 725	14 768	12 258	1 795	6 957	5 414	2 679	2 056	2.56	3.06	4 925	746	4 179
Putnam County	82 838	28 094	22 549	19 675	2 028	5 545	4 410	1 594	1 202	2.95	3.32	1 103	299	804
Queens County	1 924 375	720 149	490 915	351 675	102 674	229 234	196 008	82 433	65 305	2.67	3.25	27 223	18 938	8 285
Rensselaer County	148 564	57 612	39 356	30 925	6 446	18 256	14 715	6 211	4 881	2.58	3.13	5 865	1 538	4 327
Richmond County	371 574	130 519	99 059	78 198	16 249	31 460	27 314	10 516	8 305	2.85	3.33	7 403	5 222	2 181
Rockland County	257 325	84 874	66 583	55 520	8 357	18 291	15 067	6 038	4 838	3.03	3.46	8 150	4 994	3 156
St. Lawrence County	101 384	37 964	26 784	21 809	3 663	11 180	8 924	4 223	3 303	2.67	3.16	10 590	3 232	7 358
Saratoga County	177 151	66 425	48 363	40 835	5 597	18 062	14 204	5 263	4 073	2.67	3.14	4 125	2 224	1 901
Schenectady County	144 981	59 181	39 702	31 284	6 556	19 479	16 611	7 649	6 063	2.45	3.01	4 304	2 201	2 103
Schoharie County	29 759	11 257	8 127	6 705	1 016	3 130	2 522	1 249	916	2.64	3.10	2 100	450	1 650
Schuyler County	18 176	6 818	5 025	4 140	618	1 793	1 471	753	571	2.67	3.11	486	474	12
Seneca County	32 452	12 285	8 998	7 421	1 156	3 287	2 708	1 296	981	2.64	3.09	1 231	670	561
Steuben County	97 128	37 299	26 447	21 446	3 615	10 852	9 194	4 286	3 374	2.60	3.11	1 960	1 690	270
Suffolk County	1 292 470	424 719	340 593	282 081	44 113	84 126	67 834	29 961	23 450	3.04	3.40	29 394	16 882	12 512
Sullivan County	63 858	24 576	17 090	13 848	2 344	7 486	6 216	2 916	2 095	2.60	3.13	5 419	2 829	2 590
Tioga County	51 974	18 838	14 470	12 192	1 640	4 368	3 670	1 594	1 252	2.76	3.17	363	318	45
Tompkins County	82 093	33 338	19 049	15 488	2 661	14 289	9 066	2 608	2 105	2.46	2.98	12 004	848	11 156
Ulster County	156 774	60 807	42 213	33 839	6 186	18 594	14 799	5 988	4 628	2.58	3.09	8 530	3 653	4 877
Warren County	58 122	22 559	15 788	12 740	2 254	6 771	5 519	2 591	2 070	2.58	3.09	1 087	513	574
Washington County	55 682	20 256	15 023	12 218	2 032	5 233	4 295	2 160	1 649	2.75	3.21	3 648	3 519	129
Wayne County	87 841	31 977	23 961	19 787	3 046	8 016	6 443	2 948	2 354	2.75	3.17	1 282	962	320
Westchester County	845 770	320 030	227 827	180 205	37 133	92 203	79 330	33 373	26 725	2.64	3.16	29 096	16 022	13 074
Wyoming County	38 731	13 897	10 528	8 857	1 175	3 369	2 847	1 391	1 088	2.79	3.23	3 776	3 709	67
Yates County	22 158	8 419	6 100	5 111	698	2 319	1 909	996	782	2.63	3.09	652	269	383
PLACE AND COUNTY SUBDIVISION														
Adams village, Jefferson County	1 742	726	469	379	78	257	231	131	112	2.40	3.04	11	11	-
Adams town, Jefferson County	4 966	1 839	1 335	1 115	177	504	424	220	183	2.70	3.20	11	11	-
Adams Center CDP, Jefferson County	1 675	591	455	378	64	136	102	45	36	2.83	3.22	-	-	-
Addison village, Steuben County	1 842	711	505	378	94	206	171	106	87	2.59	3.05	-	-	-
Addison town, Steuben County	2 645	995	730	556	127	265	215	118	97	2.66	3.08	-	-	-
Afton village, Chenango County	838	337	238	207	26	99	86	52	38	2.49	3.01	-	-	-
Afton town, Chenango County	2 972	1 092	814	670	98	278	219	108	81	2.72	3.13	-	-	-
Airmont CDP, Rockland County	7 540	2 282	2 042	1 817	169	240	196	97	77	3.30	3.51	295	216	79
Akron village, Erie County	2 895	1 185	790	621	137	395	350	224	176	2.44	3.04	11	-	11
Alabama town, Genesee County	1 998	678	545	468	48	133	118	59	42	2.95	3.30	-	-	-
Albany city, Albany County	91 458	42 121	20 308	12 695	6 193	21 813	16 239	5 659	4 481	2.17	2.94	9 624	2 338	7 286
Albertson CDP, Nassau County	5 166	1 808	1 484	1 261	153	324	291	177	150	2.86	3.21	-	-	-
Albion village, Orleans County	5 710	2 317	1 504	1 061	347	813	704	350	284	2.46	3.06	153	121	32
Albion town, Orleans County	6 259	2 394	1 625	1 211	316	769	659	319	249	2.61	3.19	1 919	1 887	32
Albion town, Oswego County	2 028	638	528	442	54	110	81	26	12	3.18	3.45	15	15	-
Alden village, Erie County	2 443	955	667	558	77	288	251	134	103	2.56	3.13	14	-	14
Alden town, Erie County	8 587	2 991	2 411	2 100	226	580	491	259	200	2.87	3.25	1 785	1 771	14
Alexander village, Genesee County	445	150	123	102	12	27	23	14	13	2.97	3.28	-	-	-
Alexander town, Genesee County	2 233	742	621	543	47	121	99	41	33	3.01	3.28	-	-	-
Alexandria town, Jefferson County	3 899	1 505	1 091	878	133	414	345	186	139	2.59	3.05	50	21	29
Alexandria Bay village, Jefferson County	1 154	504	309	222	64	195	171	95	76	2.29	2.94	40	21	19
Alfred village, Allegany County	1 055	487	191	177	12	296	197	59	52	2.17	2.81	3 504	-	3 504
Alfred town, Allegany County	2 287	958	517	460	36	441	308	87	76	2.39	3.02	3 504	-	3 504
Allegany village, Cattaraugus County	1 944	754	459	383	57	295	193	114	91	2.58	3.06	36	36	-
Allegany town, Cattaraugus County	6 410	2 399	1 720	1 464	196	679	520	266	209	2.67	3.12	1 917	36	1 881
Allegany Reservation, Cattaraugus County	1 139	419	289	187	82	130	107	44	31	2.72	3.30	4	-	4
Allen town, Allegany County	406	137	109	99	6	28	26	14	8	2.96	3.40	-	-	-
Alma town, Allegany County	838	293	240	210	17	53	45	28	15	2.86	3.16	8	8	-
Almond village	458	185	133	108	22	52	47	27	21	2.48	3.00	-	-	-
Allegany County	442	175	128	103	22	47	43	25	20	2.53	3.04	-	-	-
Steuben County	16	10	5	5	-	5	4	2	1	1.60	2.00	-	-	-

REFERENCE NO. 6


SITE LOCATION
WELL LEGEND
WATER AUTHORITY: LAMBERT AVE. WELLFIELD (2 wells)
WATER AUTHORITY: NORTH FIFTH ST. WELLFIELD (1 well)
WATER AUTHORITY: ALBANY AVE. WELLFIELD (3 wells)
WATER AUTHORITY: ALBIN AVE. WELLFIELD (2 wells)
WATER AUTHORITY: TENETY AVE. WELLFIELD (2 wells)
WATER AUTHORITY: SAWYER AVE. WELLFIELD (3 wells)
WATER AUTHORITY: 12TH ST. WELLFIELD (2 wells)
WATER AUTHORITY: PROSPECT AVE. WELLFIELD (3 wells)
WATER AUTHORITY: GORDON AVE. WELLFIELD (1 well)
WATER AUTHORITY: AUGUST RD. WELLFIELD (3 wells)
WATER AUTHORITY: WYANDANCH AVE. WELLFIELD (1 well)
WATER AUTHORITY: CIRCLE DR. WELLFIELD (4 wells)
WATER AUTHORITY: ADAMS AVE. WELLFIELD (2 wells)
ALE WATER DISTRICT: PLANT NO. 2 (2 wells)
ALE WATER DISTRICT: PLANT NO. 5 (2 wells)
LE WATER DISTRICT: RTE. 109 & NEW HIGHWAY WELLFIELD (2 wells)
LE WATER DISTRICT: RTE. 110 & GAZA RD. WELLFIELD (1 well)
LE WATER DISTRICT: RTE. 110 & MELVILLE RD. WELLFIELD (1 well)
LE WATER DISTRICT: RTE. 110 & SMITH RD. WELLFIELD (1 well)
TER DISTRICT: WELL NO. 1-3
TER DISTRICT: WELL NO. 2-2, & WELL NO. 2-3
R DEPARTMENT: CRANS5 PLANT (4 wells)
ON WATER DISTRICT: WELL NO. 18
ON WATER DISTRICT: WELL NO. 7-1 & WELL NO. 7-2
TITLE:
FOUR-MILE VICINITY MAP
SITE NAME:
U.S. ELECTROPLATING
WEST BABYLON, SUFFOLK COUNTY, NEW YORK
DATE: July 6, 1995
SCALE: 1" = 2000'
REPORT NUMBER: 8003-450
USGS TOPO NAME:
AMITYVILLE, NEW YORK
GREAT SOUTH BAY
BABYLON
Plainview
Melville
Lower Melville
Old Bethpage
Farmingdale
Maywood
South Farmingdale
North Massapequa
North Amityville
North Lindenhurst
West Babylon
Deer Park
Half Hollow
Wyandanch
North Babylon
Copiague
LINDENHURST
AMITYVILLE
Little Neck
Copiague Neck
Great Neck
Amity Harbor
Harbor Green
Santapogue Point
Strongs Point
Unqua Pt
Howell Pt
Tidal Flat
Lights
Light
LONG ISLAND NATIONAL CEMETERY
PINELAWN CEMETERY
BETH MOSES CEMETERY
NEW MONTEFIORE CEMETERY
MT ARARAT CEMETERY
REPUBLIC AIRPORT
BETHPAGE STATE PARK
GOLF COURSE
STATE UNIVERSITY AGRICULTURAL AND TECHNICAL INST
SUFFOLK CO
NASSAU CO
LONG ISLAND
SOUTHERN STATE PARKWAY
INTERCHANGE 46
INTERCHANGE 48
INTERCHANGE 49
INTERCHANGE 50
INTERCHANGE 30
INTERCHANGE 32
INTERCHANGE 33
INTERCHANGE 34
INTERCHANGE 35
INTERCHANGE 36
INTERCHANGE 37
INTERCHANGE 38
INTERCHANGE 39
Belmont Lake State Park
Great East Neck
Sampawams
Hawkeys Lake
Babylon Yacht Cl
Harbor Green
Municipal Dock
Tanner Park
Avon Lake
Amityville Mem High Sch
Deauville Gardens Sch
Queen of the Rosary Academy
Trinity Cem
Ronek Park
Amityville Cemetery
Northeast Sch
Northwest Sch
Carman Road Sch
Amityville Jr High Sch
Copiague High Sch
Copiague Jr High Sch
Drive-in Theater
Sewage Disposal Ponds
Polytechnic Institute of Brooklyn at Farmingdale
Farmingdale High Sch
Parkway Oaks Sch
Our Lady of Lourdes Sch
Trailer Park
Southedge Jr High Sch
McKenna Jr High Sch
Hawthorn Sch
East Lake Sch
Lockhart Sch
Parkside Jr High Sch
Eastplain Sch
Albany Ave Sch
Packard Jr High Sch
Baldwin Drive Sch
Woodward Parkway Sch
Mill Lane Jr High Sch
Berner High Sch
Unqua Sch
Village Hall
St Martin of
Park Ave Sch
Great Neck Road Sch
Wiley Sch
Scudder Ave Sch
West Gates Ave Sch
Albany Ave Sch
School St Sch
Allegheny Ave Sch
Our Lady of Perpetual Help Sch
Jr High Sch
Library
Fire Sta
Hospital
Deauville Gardens Sch
Amityville Mem High Sch
Northwest Sch
Carman Road Sch
Northeast

REFERENCE NO. 7

MALCOLM PIRNIE, INC.	PROJECT NOTE

TO:	Project File	DATE:	July 6, 1995
FROM:	Bernard Pierre	PROJECT #:	8003-450
SUBJECT:	Wellhead Protection Area	SITE NAME:	U.S. Electroplating Corp.

According to the New York State Wellhead Protection Program Book, the areas of Deep Flow Recharge are considered Wellhead Protection Area (WPA). The boundaries of the Deep Flow Recharge is mapped on the attached Hagstrom map of Long Island and the U.S. Electroplating Corp. site is not located within these boundaries. However, the site is located within 4 miles of a Wellhead Protection Area.

ARCS II CONTRACT 68-W9-0051
MALCOLM PIRNIE, INC.
RECORD OF TELEPHONE CONVERSATION/AGREEMENT

File No. 8002-062

Date: June 18, 1992 Time: 9:28 AM [X] PM [ ]

Call

To: Kevin Roberts (518) 457-6674
Telephone No.

Affiliation: NYSDEC, Division of Water, Groundwater Management

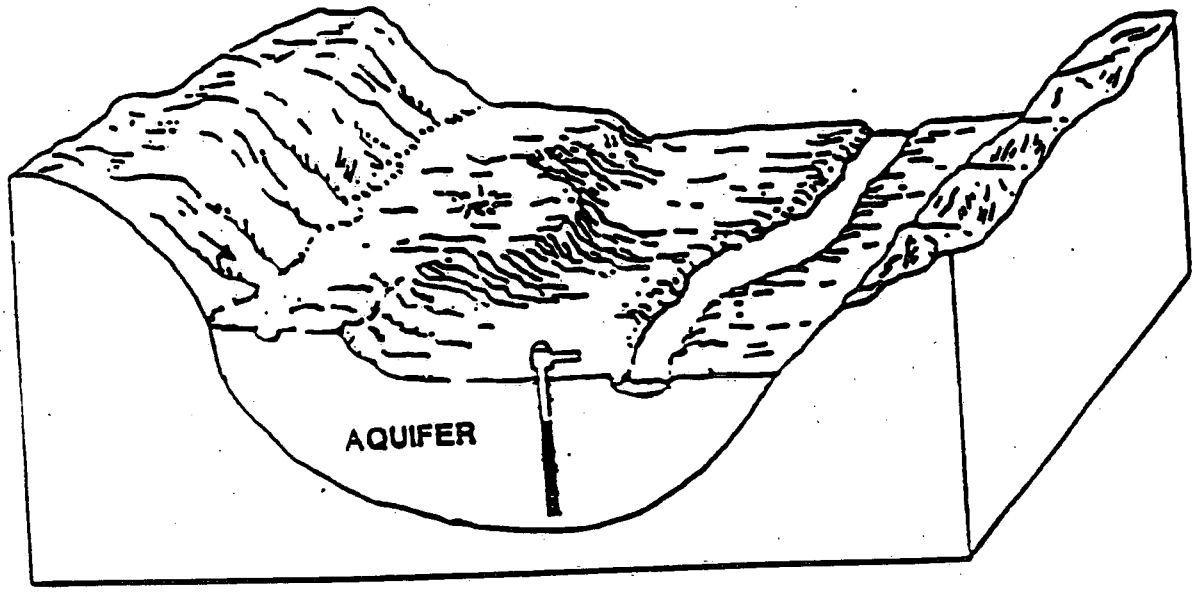
Malcolm Pirnie Staff: Lisa Szegedi (609) 860-0100
Telephone No.

Summary of Conversation:

The September 1990 New York State Wellhead Protection Program document is a finalized document.

Department of Environmental Conservation

NEW YORK STATE WELLHEAD PROTECTION PROGRAM



Submittal
to
United States Environmental Protection Agency

New York State Department of Environmental Conservation
MARIO M. CUOMO, *Governor* THOMAS C. JORLING, *Commissioner*

September 1990

TABLE 3.1.
WELLHEAD PROTECTION AREA
DELINEATION SUMMARY

Geographic Region	Aquifer Area	Wellhead Protection Area Baseline Delineation
Long Island	Magothy & Lloyd Aquifers	Deep Flow Recharge Area
	Glacial Aquifer	Simplified Variable Shape: 1,500 ft. radius upgradient 500 ft. radius downgradient
Upstate	Unconsolidated Aquifers	Aquifer Boundaries (land surface)
	Bedrock Aquifers	Fixed Radius: 1,500 ft. radius

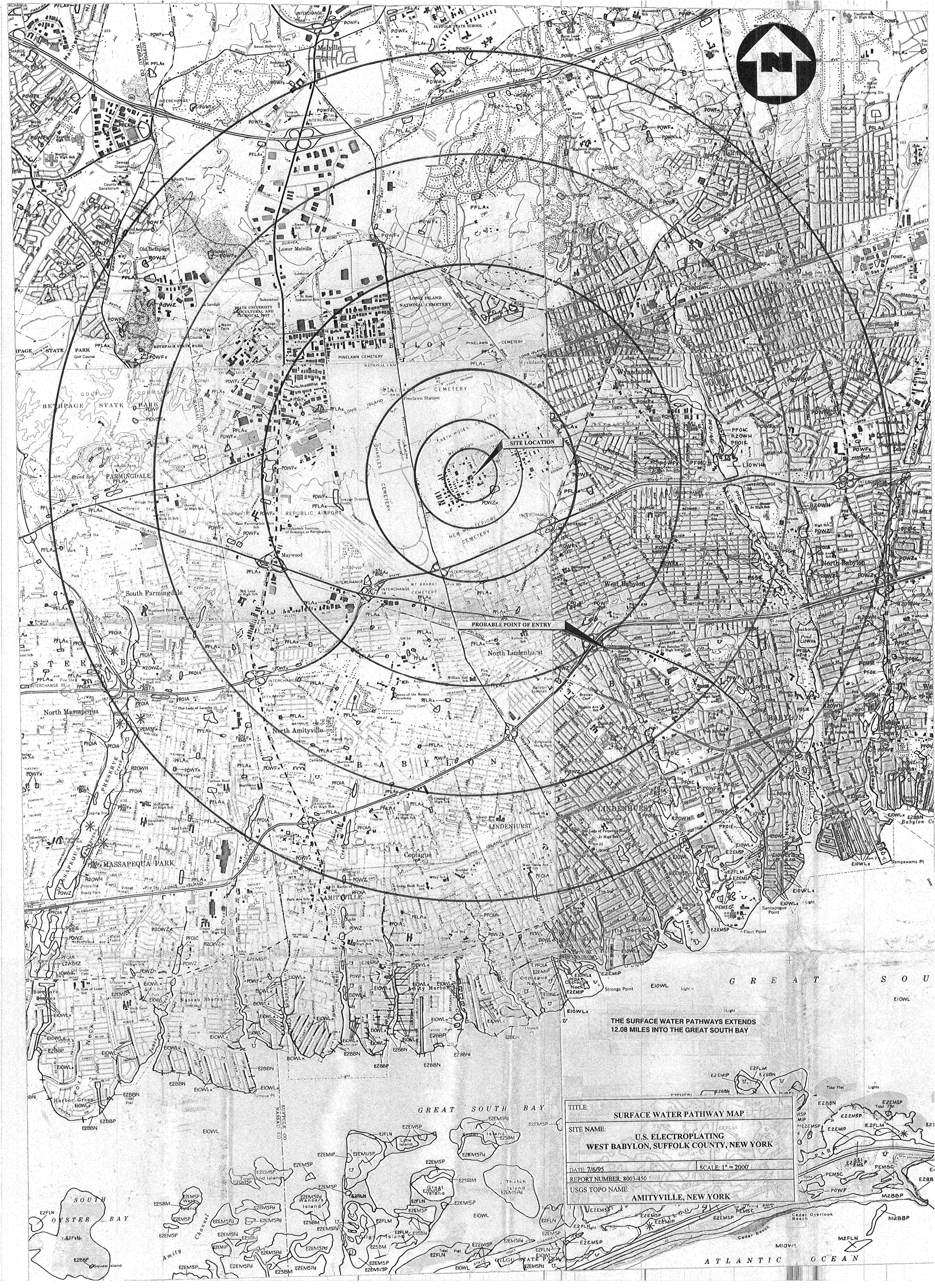
TITLE:
AREAS OF DEEP FLOW RECHARGE IN LONG ISLAND

SITE NAME:
U.S. ELECTROPLATING CORP.
WEST BABYLON, SUFFOLK COUNTY, NEW YORK

DATE: 7/6/95

REPORT NUMBER: **8003-450**

REFERENCE NO. 8


SITE LOCATION
PROBABLE POINT OF ENTRY
THE SURFACE WATER PATHWAYS EXTENDS
12.08 MILES INTO THE GREAT SOUTH BAY
TITLE:
SURFACE WATER PATHWAY MAP
SITE NAME:
U.S. ELECTROPLATING
WEST BABYLON, SUFFOLK COUNTY, NEW YORK
DATE: 7/6/95
SCALE: 1" = 2000'
REPORT NUMBER: 8003-450
USGS TOPO NAME:
AMITYVILLE, NEW YORK
Melville
Lower Melville
Old Bethpage
BETHPAGE STATE PARK
FARMINGDALE
REPUBLIC AIRPORT
Maywood
South Farmingdale
North Massapequa
North Amityville
AMITYVILLE
Copiague
LINDENHURST
North Lindenhurst
West Babylon
North Babylon
Wyandanch
Half Hollow
BABYLON
GREAT SOUTH BAY
ATLANTIC OCEAN
SOUTH OYSTER BAY
Amity Harbor
Harbor Green
Nassau Shores
Massapequa Park
Fort Neck
Little Neck
Copiague Neck
Great Neck
Gilgo Island
Wansers Island
Townsend Island
Thatch Island
Squaw Island
Unqua Pt
Strongs Point
Howell Pt
Fleet Point
Santapogue Point
Sampawams Pt
Babylon Co
Cedar Beach
Cedar Overlook Beach
GILGO STATE PARK
Amity Channel
Tidal Flat
Lights
Light
SUFFOLK CO
NASSAU CO

REFERENCE NO. 9

MALCOLM PIRNIE, INC.	PROJECT NOTE

TO:	Project File	DATE:	September 22, 1995
FROM:	Bernard Pierre	PROJECT #:	8003-450
SUBJECT:	Wetlands Acreage & Frontage	SITE NAME:	U.S. Electroplating Corp.

The following table summarizes the wetlands acreage for the U.S. Electroplating Corp. site.

Distance From Site	Wetlands Acreage
0 - ¼ mile	0
¼ - ½ mile	0
½ - 1 mile	0
1 - 2 mile	5
2 - 3 mile	32
3 - 4 mile	87
Total	124

Acreage was obtained using the National Wetland Inventory Maps. Map quads used include:

Huntington, NY
Amityville, NY
Greenlawn, NY
Bay Shore West, NY

The surface water pathway for the site is the Santapogue Creek, the Great South Bay.

Wetland Frontage along the surface water pathway for the U.S. Electroplating Corp. site.

Waterbody	Wetlands Frontage in miles
Santapogue Creek	4.2
The Great South Bay	3.3

REFERENCE NO. 10

ARCS II CONTRACT 68-W9-0051
MALCOLM PIRNIE, INC.
RECORD OF TELEPHONE CONVERSATION/AGREEMENT

File No. 8003-450

Date: October 11, 1995 Time: 2:30 AM [ ] PM [X]

Outgoing Call

To: Gregory Kozlowski (516)-249-4211 Telephone No.

Affiliation: New York State Department of Environmental Conservation: Fisheries Division

Malcolm Pirnie Staff: Bernard Pierre (609) 860-0100 Telephone No.

Summary of Conversation:

I contacted Mr. Kozlowski to obtain Fisheries information for the Great South Bay and Santapogue Creek. Mr Kozlowski informed me that the Great South Bay is a fishery, and although Santapogue Creek is stocked with flounder it is not a fishery. Santapogue Creek is classified as Class C, Standard CT from Mountain Highway to the source , and from Mountain Highway to the mouth the Creek is classified as Class I, Standard I.

REFERENCE NO. 11

ARCS II CONTRACT 68-W9-0051
MALCOLM PIRNIE, INC.
RECORD OF TELEPHONE CONVERSATION/AGREEMENT

File No: 8003-399

Date: June 28, 1995 Time: 3:00 AM [ ] PM [x]

Outgoing Call

To: Alice Webber (516) 444-0437
Telephone No.

Affiliation: New York State Department of Environmental Conservation (NYSDEC)

Malcolm Pirnie Staff: Bernard Pierre (609) 860-0100
Telephone No.

Summary of Conversation:

I spoke to Mr. Webber to obtain fisheries information for the Great South Bay in Suffolk County. Ms. Webber informed me that the Great South Bay is a major fishery. The Great South Bay is utilized for recreational and commercial fishing.

REFERENCE NO. 12

MALCOLM PIRNIE, INC.			PROJECT NOTE
TO:	Project File	DATE:	August 14, 1995
FROM:	Bernard Pierre	PROJECT #:	8003-450
SUBJECT:	Sensitive Environment	SITE NAME:	U.S. Electroplating Corp.

Sensitive environments for the U.S. Electroplating Corp. site were determined from the 4-mile vicinity map, 15-mile surface water pathway map, and a letter from the New York State Department of Environmental Conservation, Wildlife Resources Center. According to this information, there is one Federally-listed endangered species located within four miles of the site. There are no Federally endangered species located along the 15-mile surface water pathway. There are five New York State-listed endangered species and four New York State-listed threatened species located within four miles of the site. There are no New York State-listed endangered or threatened species located along the 15-mile surface water pathway.

The Federally-listed endangered species located within 4-miles of the site:
Species 1; Vascular Plants, Scientific Name: Falco Agalinis Acuta, Common Name: Sandplain Gerardia

The New York State-listed endangered species located within 4-miles of the site:
Species 1; Vascular Plants, Scientific Name: Hypericum Hypericoides SSP Multicau, Common Name: St. Andrew's Cross
Species 2; Vascular Plants, Scientific Name: Carex Barrattii, Common Name: Barratt's Sedge
Species 3; Vascular Plants, Scientific Name: Hypericum Adpressum, Common Name: Creeping St.John's-Wort
Species 4; Vascular Plants, Scientific Name: Polygala Lutea, Common Name: Yellow Milkwort
Species 5; Vascular Plants, Scientific Name: Aster Concolor, Common Name: Silvery Astery

The New York State-listed threatened species located within 4-miles of the site:
Species 1; Vascular Plants, Scientific Name: Linum Medium Var Texanum, Common Name: Southern Yellow Flax
Species 2; Vascular Plants, Scientific Name: Desmodium Ciliare, Common Name: Tick Trefoil
Species 3; Vascular Plants, Scientific Name: Platanthera Ciliaris, Common Name: Orange Fringed Orchis
Species 4; Vascular Plants, Scientific Name: Scleria Pauciflora Var Caroliniana, Common Name: Fewflower Nutrush

The records, which are not publicly releasable, can be found in the U.S. Electroplating Corp. site working file which is located at the US Environmental Protection Agency, Edison, New Jersey.

REFERENCE NO. 13

Projects (continued)

U.S. ELECTROPLATING CORP.

ON-SITE RECONNAISSANCE

SEPTEMBER 26TH 1995

TABLE OF CONTENTS

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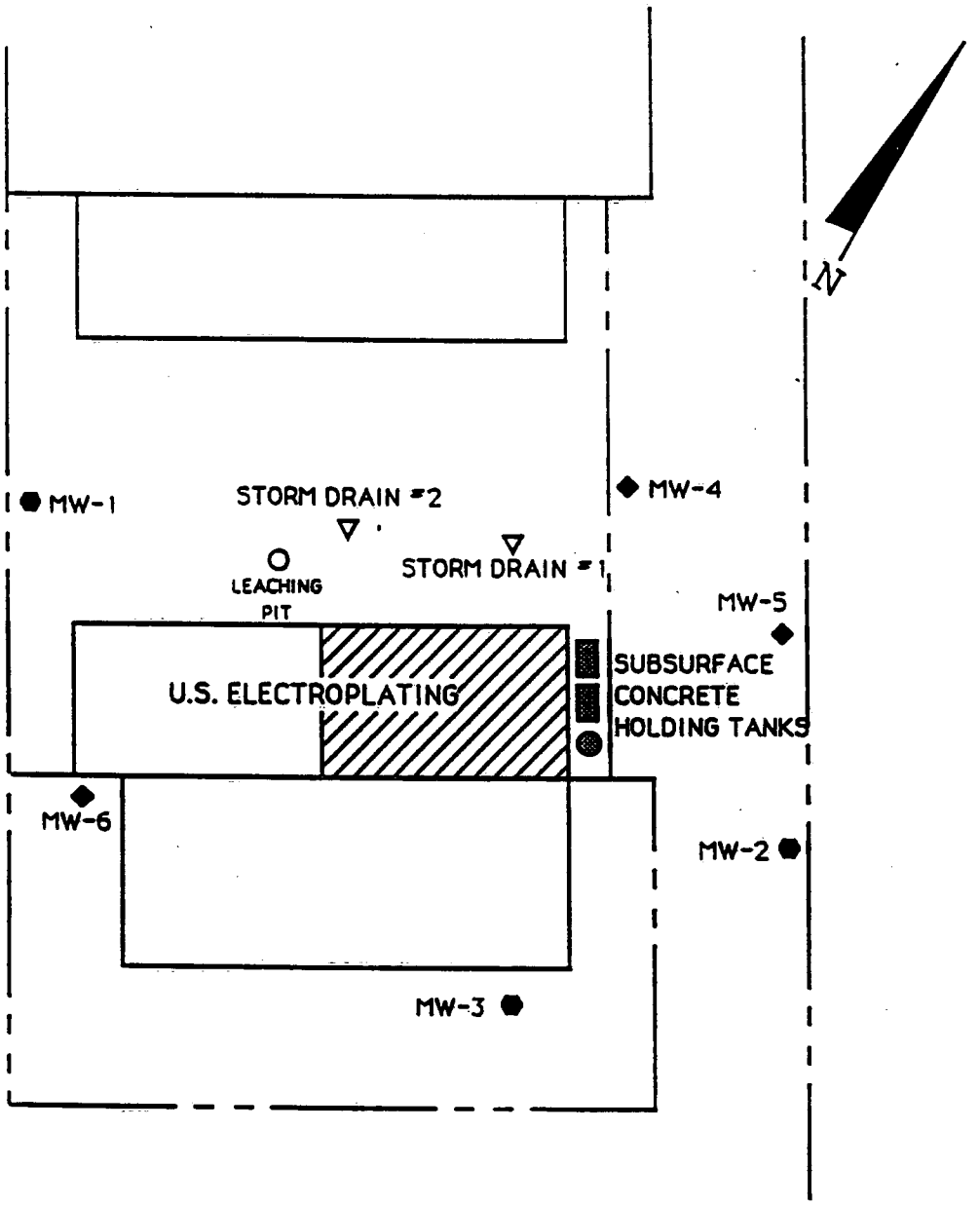
FIELD NOTES	2-6



MALCOLM PIRNIE

SAMPLE LOCATION MAP
U.S. ELECTROPLATING CORP.
WEST BABYLON, SUFFOLK COUNTY, NEW JERSEY

DATE: 1 AUG 95 | FIGURE 2

Pierre
9/26/95 ©

9:45 Arrive at U.S. Electroplating Corp.

Malcolm Pirnie Personnel
B. Pierre Record Keeper
D. Kaulenberg: Health & Safety Offi
C. Roth

Weather: Overcast / slight drizzle

D. Kaulenberg conducts brief tailgate Health & Safety meeting

9:52 Entered the facility to meet with John Soderberg, site contact. Mr Soderberg has not arrived at the landfill.

Exited the facility to await Mr Soderberg's arrival.

Pierre
9/26/95

Roberts 9/26/95

10:03 Mr. Soderberg arrives.

10:05 Met with John Soderberg.

10:08 located Storm drain 1 approximately 4 feet west of Storm drain 2 located approximately 20 feet in front of the aluminum door. Photo 1 of Storm drain 1 9/26/95

Storm drain 2 located approximately 20 feet to the East of storm drain 2

Both storm drains have manhole covers

The site is predominantly paved

Roberts 9/26/95

Roots 9/26/95

10:13 Located MW1 located to the NE of the property
Photo IP2
The lock has been rusted through, the integrity is questionable since the well can be easily accessed (the well is open)

To the North East Edge of the compound there is an old trailer

Information on the storm drains
Stephen Costa 852-2100
Maloney 854-2529

10:21 Photo IP3
of the compound from the roadway the flooded out puddles in the picture are the two other storm drains

Roots 9/26/95

Rowe 9/26/95

10:25 Photo ID 4
Photo of Building sharing the paved property. Mr. Sederberg recalls the building being occupied about year + half ago

There is an electrical pole in the center of the compound with transformer

10:31 Walked along Field St to try an locate MW2
Photo ID 5 of the East side of the building
10:36 Unable to find the monitoring well (MW2)

Monitoring well MW3 not located on the property of U.S. Electrofa
unable to enter the adjacent property

Rowe 9/26/95

9/20/95 (6)

10:38 Photo 1P6
Photos of the stack located to the east of the site which appears to be part of the Town of Babylon landfill

10:40 Picture of US Electroplating from in front of 98 Field St
Photo 1P7 - 1P8

10:41 Photo 1P9
photo of Town storm drain located on Field St.

There are no schools or daycare located within 200 feet of the property
~~there is a locked gate and the site is fence~~
HMS
The gate to the site can be locked and is locked.

9/20/95

REFERENCE NO. 14

MALCOLM PIRNIE, INC.	PROJECT NOTE

TO:	Project File	DATE:	July 10, 1995
FROM:	Bernard Pierre	PROJECT #	8003-450
SUBJECT:	Population	SITE NAM	U.S. Electroplating

The following table summarizes the population for each ring of the U.S. Electroplating Site.

Distance From Site	Population
0 - ¼ mile	106
¼ - ½ mile	621
½ - 1 mile	3,744
1 - 2 mile	22,755
2 - 3 mile	52,912
3 - 4 mile	89,245
0 - 4 mile	169,383

Amityville, NY
Huntington, NY
Greenlawn, NY
Bay Shore West, NY

FROST ASSOCIATES

P.O.Box 495, Essex, Connecticut 06426
(203) 767-7644 FAX (203) 767-1971

July 10, 1995

To: Malcolm Pirnie Inc
104 Interchange Plaza
Cranbury, New Jersey 08512-8543

Attn: Lilli Gonzalez

Fr: Frost Associates
P.O. Box 495
Essex, Conn 06426

Tel: (203) 767-1254
Fax: (203) 767-7069

Sub: US Electroplating
Babylon, NY

CERCLIS:

Job: 8003-450-701

Site Longitude: 73-23-06 73.385002
Site Latitude : 40-44-55 40.748611

The CENTRACTS report below identifies the population, households, and private water wells of each Block Group that lies within, or partially within, the 4, 3, 2, 1, .5, and .25, mile "rings" of the latitude and longitude coordinates above. CENTRACTS may have up to ten radii of any length. 1000 block groups, and 15000 block group sides.

CENTRACTS uses the 1990 Block Group population and Block Group house count data found in the Census Bureau's 1990 STF-1A files. The sources of water supply data are from the Bureau's 1990 STF-3A files. The boundary line coordinates of the Block Groups were extracted from the Census Bureau's 1990 TIGER/Line Files.

CENTRACTS reports are created with programs written by Frost Associates, P.O. Box 495, Essex, Conn. The code was written using Microsoft's Quick-Basic Ver. 4.5.

Latitude and Longitude coordinates identifying a site are entered in degrees and decimal degrees. One or more county files holding Block Group boundary lines are selected for use by CENTRACTS by determining whether the site coordinates fall within the minimum and maximum Lat\Lon coordinates of each county in the state.

Each Block Group line segment has Lat\Lon coordinates representing the "From" and "To" ends of that line. All coordinates from the selected county files are read and converted from degrees, decimal degrees to X\Y miles from the site location. Each line segment is then examined whether it lies within or partially within the maximum ring from the site.

The unique Block Group ID numbers of each line segment that lie within the maximum ring are retained. All Block Group boundary lines matching the Block Group numbers are then extracted from the respective county files to obtain all sides of the included Block Groups. Boundary records are then sorted in adjacent side order to determine the shape and area of each Block Group polygon.

A method to solve for the area of a polygon is to take one-half the sum of the products obtained by multiplying each X-coordinate by the difference between the adjacent Y-coordinates. For a polygon with coordinates at adjacent angles A, B, C, D, and E. The formula can be expressed:

Area = 1/2{Xa(Ye-Yb)+ Xb(Ya-Yb)+ Xc(Yb-Yd)+ Xd(Yc-Ye)+ Xe(Yd-Ya)}

For each ring, the selected Block Groups will be inside, outside, or intersected by the ring. When a polygon is intersected, the partial Block Group area within that ring is calculated using the method described below.

When a ring intersects a Block Group, the intersect points are solved and plotted at the points where the ring enters and exits the shape. The chord line, a line within the circle connecting the intersect points is determined. This chord line is used to calculate the segment area, the half moon shape between the chord line and the ring, and the sub-polygon created by the chord line and the Block Group boundaries that lie outside the ring.

The segment area is subtracted from the sub-polygon area to determine the area of the sub-polygon outside the ring. The area outside the ring is then subtracted from the area of the entire polygon to arrive at the inside area. This inside area is then divided by the tract's total area to determine the percentage of area within the ring. This process is repeated for each block group that is intersected by one of the rings. The total area, partial area, and percentage of partial area of those block groups within, or partially within a ring, are held in memory for the report.

On occasion, the algorithm described above is unable to determine the area of the partial area. Within the report program is a "Paint" routine which allows an enclosed shape to be highlighted. Another routine calculates the percentage of highlighted screen pixels to the pixels within the polygon. A manual entry is allowed. Both the "paint" method and manual entry method over ride the calculated method.

CENTRACTS lists, starting on page 4, all Block Groups in State, County, Census Tract, and Block Group ID order that lie within, or partially within, the maximum ring. Each Block Group is identified by a City or Town name and by the Block Group's State, County, Tract and Block Group ID number. Following is the Block Group's 1990 populu tion and house count extracted from the Census Bureau's 1990 STF-1A files.

The next four columns display water source data from the 1990 STF-3A files. The first column is "Units with Public system or private company source of water", followed by "Units with individual well, Drilled, source of water"; "Units with individual well, Dug, source of water" and "Units with Other source of water".

For each ring, CENTRACTS then shows the Block Groups that are within that ring, the Block Group's total area in square miles, the partial area of the Block Group within that ring, and the partial percentage within the ring. The areas of the included Block Group and the partial areas are then totaled.

The last section tallies the demographic data within each ring. The percentage of area for each Block Group is multiplied times the census data for that Block Group and totaled for all Block Group's within the ring. Ring totals are then determined by subtracting the three mile data from the four mile, the two mile from the three mile, one from the two, etc... Population on private wells is calculated using the formula: ((Drilled + Dug Wells) / Households) * Population

US Electroplating
Babylon, NY

No.	City	Block Group ID	Blk Grp People	House Holds	Public Water	Drilled Wells	Dug Wells	Other
1	Oyster Bay	36059 5201 1	1032	424	434	0	0	0
2	Oyster Bay	36059 5201 2	991	317	303	0	0	11
3	Oyster Bay	36059 5201 4	1055	351	350	0	0	0
4	Oyster Bay	36059 5201 5	1495	419	375	0	0	0
5	Oyster Bay	36059 5201 6	354	115	134	0	0	0
6	Oyster Bay	36059 5206 1	1139	375	380	0	0	0
7	Oyster Bay	36059 5206 2	976	309	331	0	0	0
8	Oyster Bay	36059 5206 3	785	275	281	0	0	0
9	Oyster Bay	36059 5206 4	974	304	267	0	0	9
10	Oyster Bay	36059 5206 5	1039	317	289	0	0	0
11	Oyster Bay	36059 5206 6	1213	411	434	0	0	0
12	Oyster Bay	36059 5220 1	1957	590	559	0	0	0
13	Oyster Bay	36059 5197021	1444	424	451	0	0	0
14	Oyster Bay	36059 5204011	994	480	490	0	0	0
15	Oyster Bay	36059 5204014	925	387	377	0	0	0
16	Oyster Bay	36059 5204015	1134	446	458	0	0	0
17	Oyster Bay	36059 5204016	993	307	289	0	0	5
18	Oyster Bay	36059 5204022	1192	428	405	0	0	0
19	Oyster Bay	36059 5204023	1990	931	949	0	0	0
20	Oyster Bay	36059 5204024	368	147	154	0	0	0
21	Oyster Bay	36059 5204025	445	194	192	0	0	0
22	Oyster Bay	36059 5205011	1182	389	400	0	0	0
23	Oyster Bay	36059 5205012	671	222	217	0	0	6
24	Oyster Bay	36059 5205021	1067	360	374	0	0	0
25	Oyster Bay	36059 5205022	1402	441	427	0	16	0
26	Oyster Bay	36059 5205023	1217	382	350	0	0	7
27	Oyster Bay	36059 5205025	1015	324	310	0	0	0
28	Oyster Bay	36059 5218011	722	243	248	0	0	0
29	Huntington	36103 1119 5	1395	476	465	0	7	0
30	Babylon	36103 1239 1	1143	413	388	0	0	0
31	Babylon	36103 1239 2	851	271	273	0	0	6
32	Babylon	36103 1239 3	951	297	297	0	18	0
33	Babylon	36103 1239 4	1142	366	377	0	0	0
34	Babylon	36103 1243 1	2108	856	932	0	0	0
35	Babylon	36103 1243 2	1520	618	572	0	0	9
36	Babylon	36103 1243 3	1251	418	404	0	15	0
37	Babylon	36103 1243 4	1619	516	475	0	0	0
38	Babylon	36103 1245 2	1158	381	366	0	0	12
39	Babylon	36103 1245 3	1235	515	519	0	0	0
40	Babylon	36103 1245 4	1365	445	438	0	0	0
41	Huntington	36103 1122041	1143	370	339	0	5	0
42	Huntington	36103 1122042	1524	500	507	0	0	0
43	Huntington	36103 1122061	1641	479	424	0	7	6
44	Huntington	36103 1122062	613	257	251	0	0	0
45	Huntington	36103 1122063	2290	776	820	0	4	0
46	Huntington	36103 1122071	1013	294	274	0	33	0
47	Huntington	36103 1122072	2344	687	665	0	0	0
48	Huntington	36103 1122073	741	214	223	0	0	0
49	Huntington	36103 1122089	995	10	0	0	0	0
50	Huntington	36103 1122103	1548	469	459	0	24	0
51	Huntington	36103 1122104	3154	935	925	0	0	0
52	Huntington	36103 1122121	995	301	302	0	0	0
53	Huntington	36103 1122129	2244	654	638	0	9	6
54	Huntington	36103 1122132	838	261	251	0	0	0
55	Huntington	36103 1122133	382	123	117	0	0	0

56	Huntington	36103	1122139	3968	1127	1125	8	10	0
57	Babylon	36103	1223019	885	42	42	0	0	0
58	Babylon	36103	1223021	1193	451	444	0	0	0
59	Babylon	36103	1223022	1411	460	477	0	0	0
60	Babylon	36103	1223023	713	228	218	0	6	0
61	Babylon	36103	1223029	0	0	0	0	0	0
62	Babylon	36103	1224031	1544	528	503	0	0	0
63	Babylon	36103	1224032	591	148	128	0	6	0
64	Babylon	36103	1224033	173	48	46	10	0	0
65	Babylon	36103	1224043	825	237	239	0	4	0
66	Babylon	36103	1224044	1305	381	381	0	0	0
67	Babylon	36103	1224045	692	226	202	0	18	0
68	Babylon	36103	1224046	770	224	224	0	0	0
69	Babylon	36103	1224049	0	0	0	0	0	0
70	Babylon	36103	1224051	1808	490	490	0	7	0
71	Babylon	36103	1224052	652	147	128	0	8	0
72	Babylon	36103	1224053	1023	284	308	0	5	0
73	Babylon	36103	1224062	942	262	297	0	0	0
74	Babylon	36103	1224063	577	157	69	0	13	48
75	Babylon	36103	1224064	978	253	234	0	10	0
76	Babylon	36103	1224065	844	178	158	8	9	0
77	Babylon	36103	1224066	924	249	218	17	24	0
78	Babylon	36103	1225011	923	243	303	0	23	0
79	Babylon	36103	1225012	1210	316	235	19	5	0
80	Babylon	36103	1225015	1234	358	355	0	0	0
81	Babylon	36103	1225021	573	149	163	0	6	0
82	Babylon	36103	1225022	563	143	143	0	0	0
83	Babylon	36103	1225023	1300	366	359	0	6	10
84	Babylon	36103	1225024	948	243	183	0	34	0
85	Babylon	36103	1225025	773	224	189	0	32	0
86	Babylon	36103	1226011	924	345	332	0	0	21
87	Babylon	36103	1226012	853	274	283	0	0	0
88	Babylon	36103	1226013	913	300	316	0	10	0
89	Babylon	36103	1226014	1124	364	338	0	0	0
90	Babylon	36103	1226015	1383	435	421	0	0	0
91	Babylon	36103	1226016	928	320	317	0	0	0
92	Babylon	36103	1226021	931	328	314	0	0	0
93	Babylon	36103	1226022	1380	439	421	0	0	9
94	Babylon	36103	1226023	1793	593	590	0	0	0
95	Babylon	36103	1226024	814	278	304	0	0	0
96	Babylon	36103	1226031	917	300	288	0	0	0
97	Babylon	36103	1226032	2027	778	804	0	0	0
98	Babylon	36103	1226033	1778	524	525	0	0	0
99	Babylon	36103	1226034	1110	349	334	0	0	0
100	Babylon	36103	1227041	495	156	152	0	0	0
101	Babylon	36103	1227043	36	8	17	0	0	0
102	Babylon	36103	1227044	1653	485	482	0	0	0
103	Babylon	36103	1227051	292	102	94	0	0	0
104	Babylon	36103	1227052	1748	578	575	0	0	0
105	Babylon	36103	1227053	611	197	189	0	0	0
106	Babylon	36103	1227054	605	187	181	0	0	0
107	Babylon	36103	1227063	947	315	306	0	5	0
108	Babylon	36103	1227064	898	389	380	0	0	0
109	Babylon	36103	1227065	2394	738	751	0	0	0
110	Babylon	36103	1227071	1061	324	339	0	6	0
111	Babylon	36103	1227072	1074	340	301	0	0	4
112	Babylon	36103	1227073	683	223	231	0	0	0
113	Babylon	36103	1227074	453	135	141	0	0	0
114	Babylon	36103	1228011	928	257	223	0	9	0
115	Babylon	36103	1228012	1226	332	347	0	0	0
116	Babylon	36103	1228013	923	271	259	0	6	0

117	Babylon	36103	1228014	1339	556	543	10	0	0
118	Babylon	36103	1228019	985	497	471	0	34	11
119	Babylon	36103	1228021	1798	652	644	0	0	0
120	Babylon	36103	1228022	2352	757	765	0	0	0
121	Babylon	36103	1229011	1840	594	604	0	0	0
122	Babylon	36103	1229012	1302	415	434	0	0	0
123	Babylon	36103	1229013	1080	348	335	0	0	0
124	Babylon	36103	1229014	916	274	264	0	0	0
125	Babylon	36103	1229015	748	245	239	0	0	0
126	Babylon	36103	1229021	2602	909	873	0	9	0
127	Babylon	36103	1229022	1798	660	687	0	0	0
128	Babylon	36103	1230011	1664	522	526	0	0	0
129	Babylon	36103	1230012	1059	324	312	0	0	0
130	Babylon	36103	1230013	1421	452	443	0	0	0
131	Babylon	36103	1230014	1979	622	633	0	6	0
132	Babylon	36103	1230021	1630	465	481	0	6	0
133	Babylon	36103	1230022	1503	495	482	10	0	0
134	Babylon	36103	1230023	778	235	230	0	0	0
135	Babylon	36103	1230024	769	215	184	8	0	0
136	Babylon	36103	1230025	149	39	48	0	0	0
137	Babylon	36103	1231011	2308	771	768	0	0	0
138	Babylon	36103	1231012	817	314	321	0	0	0
139	Babylon	36103	1231013	537	178	174	0	0	0
140	Babylon	36103	1231021	1161	377	402	0	0	0
141	Babylon	36103	1231022	837	262	258	0	0	0
142	Babylon	36103	1231023	1341	520	535	0	0	0
143	Babylon	36103	1231024	1098	341	305	0	0	0
144	Babylon	36103	1232011	641	218	227	0	0	0
145	Babylon	36103	1232015	552	138	123	0	0	0
146	Babylon	36103	1232021	1143	305	291	0	0	0
147	Babylon	36103	1232022	1661	427	421	0	0	0
148	Babylon	36103	1232023	1627	348	386	0	0	0
149	Babylon	36103	1232024	713	168	157	0	0	0
150	Babylon	36103	1232025	673	158	153	0	0	0
151	Babylon	36103	1233011	1406	510	497	0	0	0
152	Babylon	36103	1233012	897	294	297	0	0	0
153	Babylon	36103	1233013	997	410	403	0	0	0
154	Babylon	36103	1233015	2011	778	720	0	13	0
155	Babylon	36103	1233023	1013	297	313	0	0	0
156	Babylon	36103	1233024	522	148	152	0	0	0
157	Babylon	36103	1234011	1540	479	479	0	5	0
158	Babylon	36103	1234012	1040	310	330	0	0	0
159	Babylon	36103	1234013	1168	368	342	0	0	0
160	Babylon	36103	1234021	1258	455	503	0	0	0
161	Babylon	36103	1234022	1862	604	547	0	0	0
162	Babylon	36103	1234023	1083	340	316	0	0	0
163	Babylon	36103	1234024	652	217	213	0	0	0
164	Babylon	36103	1234025	1960	632	669	0	0	0
165	Babylon	36103	1237011	870	233	242	0	0	0
166	Babylon	36103	1237012	1450	398	387	0	0	0
167	Babylon	36103	1240011	613	184	178	0	0	0
168	Babylon	36103	1240012	268	80	77	0	0	0
169	Babylon	36103	1240013	462	149	160	0	0	0
170	Babylon	36103	1240014	1477	472	470	0	0	0
171	Babylon	36103	1240015	1236	408	415	0	0	0
172	Babylon	36103	1240016	595	220	213	0	0	0
173	Babylon	36103	1240021	884	247	235	0	7	0
174	Babylon	36103	1240022	1024	310	315	0	0	0
175	Babylon	36103	1240023	1249	392	398	0	0	0
176	Islip	36103	1467055	1740	500	483	0	0	0

Totals:	201316	64276	63418	90	480	180

US Electroplating
Babylon, NY

City	Census Tract ID	Tract People	House Count	Public Water	Drilled Wells	Dug Wells	Other Sources
Babylon	36103 1226014	1124	364	338	0	0	0
Babylon	36103 1226015	1383	435	421	0	0	0
Babylon	36103 1226016	928	320	317	0	0	0
Babylon	36103 1226021	931	328	314	0	0	0
Babylon	36103 1226022	1380	439	421	0	0	9
Babylon	36103 1226023	1793	593	590	0	0	0
Babylon	36103 1226024	814	278	304	0	0	0
Babylon	36103 1226031	917	300	288	0	0	0
Babylon	36103 1226032	2027	778	804	0	0	0
Babylon	36103 1226033	1778	524	525	0	0	0
Babylon	36103 1226034	1110	349	334	0	0	0
Babylon	36103 1227041	495	156	152	0	0	0
Babylon	36103 1227043	36	8	17	0	0	0
Babylon	36103 1227044	1653	485	482	0	0	0
Babylon	36103 1227051	292	102	94	0	0	0
Babylon	36103 1227052	1748	578	575	0	0	0
Babylon	36103 1227053	611	197	189	0	0	0
Babylon	36103 1227054	605	187	181	0	0	0
Babylon	36103 1227063	947	315	306	0	5	0
Babylon	36103 1227064	898	389	380	0	0	0
Babylon	36103 1227065	2394	738	751	0	0	0
Babylon	36103 1227071	1061	324	339	0	6	0
Babylon	36103 1227072	1074	340	301	0	0	4
Babylon	36103 1227073	683	223	231	0	0	0
Babylon	36103 1227074	453	135	141	0	0	0
Babylon	36103 1228011	928	257	223	0	9	0
Babylon	36103 1228012	1226	332	347	0	0	0
Babylon	36103 1228013	923	271	259	0	6	0
Babylon	36103 1228014	1339	556	543	10	0	0
Babylon	36103 1239 1	1143	413	388	0	0	0
Babylon	36103 1239 2	851	271	273	0	0	6
Babylon	36103 1239 3	951	297	297	0	18	0
Babylon	36103 1239 4	1142	366	377	0	0	0
Babylon	36103 1243 1	2108	856	932	0	0	0
Babylon	36103 1243 2	1520	618	572	0	0	9
Babylon	36103 1243 3	1251	418	404	0	15	0
Babylon	36103 1243 4	1619	516	475	0	0	0
Babylon	36103 1245 2	1158	381	366	0	0	12
Babylon	36103 1245 3	1235	515	519	0	0	0
Babylon	36103 1245 4	1365	445	438	0	0	0
Babylon	36103 1230012	1059	324	312	0	0	0
Babylon	36103 1230013	1421	452	443	0	0	0
Babylon	36103 1230014	1979	622	633	0	6	0
Babylon	36103 1230021	1630	465	481	0	6	0
Babylon	36103 1230022	1503	495	482	10	0	0
Babylon	36103 1230023	778	235	230	0	0	0
Babylon	36103 1230024	769	215	184	8	0	0
Babylon	36103 1230025	149	39	48	0	0	0
Babylon	36103 1231011	2308	771	768	0	0	0
Babylon	36103 1231012	817	314	321	0	0	0
Babylon	36103 1231013	537	178	174	0	0	0
Babylon	36103 1231021	1161	377	402	0	0	0
Babylon	36103 1231022	837	262	258	0	0	0
Babylon	36103 1231023	1341	520	535	0	0	0
Babylon	36103 1231024	1098	341	305	0	0	0
Babylon	36103 1232011	641	218	227	0	0	0

Babylon	36103	1223019	885	42	42	0	0	0
Babylon	36103	1223021	1193	451	444	0	0	0
Babylon	36103	1223022	1411	460	477	0	0	0
Babylon	36103	1223023	713	228	218	0	6	0
Babylon	36103	1223029	0	0	0	0	0	0
Babylon	36103	1224031	1544	528	503	0	0	0
Babylon	36103	1224032	591	148	128	0	6	0
Babylon	36103	1224033	173	48	46	10	0	0
Babylon	36103	1224043	825	237	239	0	4	0
Babylon	36103	1224044	1305	381	381	0	0	0
Babylon	36103	1224045	692	226	202	0	18	0
Babylon	36103	1224046	770	224	224	0	0	0
Babylon	36103	1224049	0	0	0	0	0	0
Babylon	36103	1224051	1808	490	490	0	7	0
Babylon	36103	1224052	652	147	128	0	8	0
Babylon	36103	1224053	1023	284	308	0	5	0
Babylon	36103	1224062	942	262	297	0	0	0
Babylon	36103	1224063	577	157	69	0	13	48
Babylon	36103	1224064	978	253	234	0	10	0
Babylon	36103	1224065	844	178	158	8	9	0
Babylon	36103	1224066	924	249	218	17	24	0
Babylon	36103	1225011	923	243	303	0	23	0
Babylon	36103	1225012	1210	316	235	19	5	0
Babylon	36103	1225015	1234	358	355	0	0	0
Babylon	36103	1225021	573	149	163	0	6	0
Babylon	36103	1225022	563	143	143	0	0	0
Babylon	36103	1225023	1300	366	359	0	6	10
Babylon	36103	1225024	948	243	183	0	34	0
Babylon	36103	1225025	773	224	189	0	32	0
Babylon	36103	1226011	924	345	332	0	0	21
Babylon	36103	1226012	853	274	283	0	0	0
Babylon	36103	1226013	913	300	316	0	10	0
Babylon	36103	1233023	1013	297	313	0	0	0
Babylon	36103	1233024	522	148	152	0	0	0
Babylon	36103	1234011	1540	479	479	0	5	0
Babylon	36103	1234012	1040	310	330	0	0	0
Babylon	36103	1234013	1168	368	342	0	0	0
Babylon	36103	1234021	1258	455	503	0	0	0
Babylon	36103	1234022	1862	604	547	0	0	0
Babylon	36103	1228019	985	497	471	0	34	11
Babylon	36103	1228021	1798	652	644	0	0	0
Babylon	36103	1228022	2352	757	765	0	0	0
Babylon	36103	1229011	1840	594	604	0	0	0
Babylon	36103	1229012	1302	415	434	0	0	0
Babylon	36103	1232015	552	138	123	0	0	0
Babylon	36103	1232021	1143	305	291	0	0	0
Babylon	36103	1232022	1661	427	421	0	0	0
Babylon	36103	1232023	1627	348	386	0	0	0
Babylon	36103	1232024	713	168	157	0	0	0
Babylon	36103	1232025	673	158	153	0	0	0
Babylon	36103	1233011	1406	510	497	0	0	0
Babylon	36103	1233012	897	294	297	0	0	0
Babylon	36103	1233013	997	410	403	0	0	0
Babylon	36103	1233015	2011	778	720	0	13	0
Babylon	36103	1237012	1450	398	387	0	0	0
Babylon	36103	1229013	1080	348	335	0	0	0
Babylon	36103	1229014	916	274	264	0	0	0
Babylon	36103	1229015	748	245	239	0	0	0
Babylon	36103	1229021	2602	909	873	0	9	0
Babylon	36103	1229022	1798	660	687	0	0	0
Babylon	36103	1230011	1664	522	526	0	0	0

Babylon	36103	1234023	1083	340	316	0	0	0
Babylon	36103	1234024	652	217	213	0	0	0
Babylon	36103	1234025	1960	632	669	0	0	0
Babylon	36103	1237011	870	233	242	0	0	0
Babylon	36103	1240015	1236	408	415	0	0	0
Babylon	36103	1240011	613	184	178	0	0	0
Babylon	36103	1240012	268	80	77	0	0	0
Babylon	36103	1240013	462	149	160	0	0	0
Babylon	36103	1240014	1477	472	470	0	0	0
Babylon	36103	1240021	884	247	235	0	7	0
Babylon	36103	1240016	595	220	213	0	0	0
Babylon	36103	1240023	1249	392	398	0	0	0
Babylon	36103	1240022	1024	310	315	0	0	0
	Sub Totals:		142977	45531	44922	82	365	130
Huntington	36103	1122063	2290	776	820	0	4	0
Huntington	36103	1122062	613	257	251	0	0	0
Huntington	36103	1122139	3968	1127	1125	8	10	0
Huntington	36103	1122071	1013	294	274	0	33	0
Huntington	36103	1122072	2344	687	665	0	0	0
Huntington	36103	1122073	741	214	223	0	0	0
Huntington	36103	1122089	995	10	0	0	0	0
Huntington	36103	1122103	1548	469	459	0	24	0
Huntington	36103	1122104	3154	935	925	0	0	0
Huntington	36103	1122121	995	301	302	0	0	0
Huntington	36103	1122129	2244	654	638	0	9	6
Huntington	36103	1122132	838	261	251	0	0	0
Huntington	36103	1122133	382	123	117	0	0	0
Huntington	36103	1122041	1143	370	339	0	5	0
Huntington	36103	1119 5	1395	476	465	0	7	0
Huntington	36103	1122061	1641	479	424	0	7	6
Huntington	36103	1122042	1524	500	507	0	0	0
	Sub Totals:		26828	7933	7785	8	99	12
Islip	36103	1467055	1740	500	483	0	0	0
	Sub Totals:		1740	500	483	0	0	0
Oyster Bay	36059	5201 1	1032	424	434	0	0	0
Oyster Bay	36059	5201 2	991	317	303	0	0	11
Oyster Bay	36059	5201 4	1055	351	350	0	0	0
Oyster Bay	36059	5201 5	1495	419	375	0	0	0
Oyster Bay	36059	5201 6	354	115	134	0	0	0
Oyster Bay	36059	5206 1	1139	375	380	0	0	0
Oyster Bay	36059	5205012	671	222	217	0	0	6
Oyster Bay	36059	5205021	1067	360	374	0	0	0
Oyster Bay	36059	5205022	1402	441	427	0	16	0
Oyster Bay	36059	5205023	1217	382	350	0	0	7
Oyster Bay	36059	5205025	1015	324	310	0	0	0
Oyster Bay	36059	5218011	722	243	248	0	0	0
Oyster Bay	36059	5206 2	976	309	331	0	0	0
Oyster Bay	36059	5206 3	785	275	281	0	0	0
Oyster Bay	36059	5206 4	974	304	267	0	0	9
Oyster Bay	36059	5206 5	1039	317	289	0	0	0
Oyster Bay	36059	5206 6	1213	411	434	0	0	0
Oyster Bay	36059	5220 1	1957	590	559	0	0	0
Oyster Bay	36059	5197021	1444	424	451	0	0	0
Oyster Bay	36059	5204011	994	480	490	0	0	0
Oyster Bay	36059	5204014	925	387	377	0	0	0

Oyster Bay	36059	5204015	1134	446	458	0	0	0
Oyster Bay	36059	5204016	993	307	289	0	0	5
Oyster Bay	36059	5204022	1192	428	405	0	0	0
Oyster Bay	36059	5204023	1990	931	949	0	0	0
Oyster Bay	36059	5204024	368	147	154	0	0	0
Oyster Bay	36059	5204025	445	194	192	0	0	0
Oyster Bay	36059	5205011	1182	389	400	0	0	0
	Sub Totals:		29771	10312	10228	0	16	38

US Electroplating
Babylon, NY

For Radius of 4 Mi., Circle Area = 50.265482

No.	City	Block Group ID	Total Area	Partial Area	% Within Radius
1	Oyster Bay	36059 52011	2.987586	2.217883	74.24
2	Oyster Bay	36059 52012	0.195271	0.159999	81.94
3	Oyster Bay	36059 52014	0.139754	0.029258	20.94
4	Oyster Bay	36059 52015	0.480612	0.319113	66.40
5	Oyster Bay	36059 52016	0.057825	0.057825	100.00
6	Oyster Bay	36059 52061	0.129906	0.129906	100.00
7	Oyster Bay	36059 52062	0.100576	0.100576	100.00
8	Oyster Bay	36059 52063	0.132121	0.103154	78.08
9	Oyster Bay	36059 52064	0.121051	0.095860	79.19
10	Oyster Bay	36059 52065	0.108600	0.108600	100.00
11	Oyster Bay	36059 52066	0.133961	0.133961	100.00
12	Oyster Bay	36059 52201	0.223482	0.054225	24.26
13	Oyster Bay	36059 5197021	1.405641	0.036137	2.57
14	Oyster Bay	36059 5204011	0.143564	0.143564	100.00
15	Oyster Bay	36059 5204014	0.066324	0.066324	100.00
16	Oyster Bay	36059 5204015	0.200426	0.194588	97.09
17	Oyster Bay	36059 5204016	0.182405	0.147774	81.01
18	Oyster Bay	36059 5204022	0.121387	0.121387	100.00
19	Oyster Bay	36059 5204023	0.216579	0.216579	100.00
20	Oyster Bay	36059 5204024	0.090480	0.090480	100.00
21	Oyster Bay	36059 5204025	0.071835	0.066735	92.90
22	Oyster Bay	36059 5205011	0.228359	0.167242	73.24
23	Oyster Bay	36059 5205012	0.063007	0.058068	92.16
24	Oyster Bay	36059 5205021	0.111866	0.111866	100.00
25	Oyster Bay	36059 5205022	0.136156	0.094756	69.59
26	Oyster Bay	36059 5205023	0.320712	0.023164	7.22
27	Oyster Bay	36059 5205025	0.107151	0.074752	69.76
28	Oyster Bay	36059 5218011	0.126596	0.023611	18.65
29	Huntington	36103 11195	1.933974	0.218252	11.29
30	Babylon	36103 12391	0.137880	0.052851	38.33
31	Babylon	36103 12392	0.145574	0.030469	20.93
32	Babylon	36103 12393	0.121366	0.121366	100.00
33	Babylon	36103 12394	0.117632	0.103764	88.21
34	Babylon	36103 12431	0.290957	0.290957	100.00
35	Babylon	36103 12432	0.416576	0.233641	56.09
36	Babylon	36103 12433	0.231264	0.231264	100.00
37	Babylon	36103 12434	0.310422	0.310422	100.00
38	Babylon	36103 12452	0.182642	0.002076	1.14
39	Babylon	36103 12453	0.175373	0.020423	11.65
40	Babylon	36103 12454	0.330970	0.215460	65.10
41	Huntington	36103 1122041	0.192751	0.035392	18.36
42	Huntington	36103 1122042	0.218864	0.187065	85.47
43	Huntington	36103 1122061	1.889637	1.208404	63.95
44	Huntington	36103 1122062	3.638111	3.638111	100.00
45	Huntington	36103 1122063	1.402639	1.056000	75.29
46	Huntington	36103 1122071	0.636910	0.636910	100.00
47	Huntington	36103 1122072	1.688053	1.688053	100.00
48	Huntington	36103 1122073	1.003395	1.003395	100.00
49	Huntington	36103 1122089	0.752927	0.752927	100.00
50	Huntington	36103 1122103	0.618877	0.379484	61.32
51	Huntington	36103 1122104	2.116644	0.509210	24.06
52	Huntington	36103 1122121	0.798854	0.443248	55.49
53	Huntington	36103 1122129	1.415614	0.968377	68.41

54	Huntington	36103	1122132	0.183788	0.183788	100.00
55	Huntington	36103	1122133	0.060981	0.060981	100.00
56	Huntington	36103	1122139	2.261147	2.261147	100.00
57	Babylon	36103	1223019	0.328783	0.328783	100.00
58	Babylon	36103	1223021	1.738505	1.738505	100.00
59	Babylon	36103	1223022	0.176434	0.176434	100.00
60	Babylon	36103	1223023	1.441314	1.441314	100.00
61	Babylon	36103	1223029	0.987944	0.987944	100.00
62	Babylon	36103	1224031	0.705081	0.705081	100.00
63	Islip	36103	1467055	0.334040	0.003747	1.12
64	Babylon	36103	1224033	1.443012	1.443012	100.00
65	Babylon	36103	1224043	0.111853	0.111853	100.00
66	Babylon	36103	1224044	0.133095	0.133095	100.00
67	Babylon	36103	1224045	0.102566	0.102566	100.00
68	Babylon	36103	1224046	0.095141	0.095141	100.00
69	Babylon	36103	1224049	0.597099	0.597099	100.00
70	Babylon	36103	1224051	0.328326	0.328326	100.00
71	Babylon	36103	1224052	0.062898	0.062898	100.00
72	Babylon	36103	1224053	0.222543	0.222543	100.00
73	Babylon	36103	1224062	0.091735	0.091735	100.00
74	Babylon	36103	1224063	0.147060	0.147060	100.00
75	Babylon	36103	1224064	0.144219	0.144219	100.00
76	Babylon	36103	1224065	0.193029	0.193029	100.00
77	Babylon	36103	1224066	0.182750	0.182750	100.00
78	Babylon	36103	1225011	0.254271	0.254271	100.00
79	Babylon	36103	1225012	0.390464	0.390464	100.00
80	Babylon	36103	1225015	0.208157	0.208157	100.00
81	Babylon	36103	1225021	0.145014	0.145014	100.00
82	Babylon	36103	1225022	0.235421	0.235421	100.00
83	Babylon	36103	1225023	0.205597	0.205597	100.00
84	Babylon	36103	1225024	0.180048	0.180048	100.00
85	Babylon	36103	1225025	0.112631	0.112631	100.00
86	Babylon	36103	1226011	0.155801	0.155801	100.00
87	Babylon	36103	1226012	0.126023	0.126023	100.00
88	Babylon	36103	1226013	0.134345	0.134345	100.00
89	Babylon	36103	1226014	0.146448	0.146448	100.00
90	Babylon	36103	1226015	0.146910	0.146910	100.00
91	Babylon	36103	1226016	0.150017	0.150017	100.00
92	Babylon	36103	1226021	0.116789	0.116789	100.00
93	Babylon	36103	1226022	0.169477	0.169477	100.00
94	Babylon	36103	1226023	0.206274	0.206274	100.00
95	Babylon	36103	1226024	0.118138	0.118138	100.00
96	Babylon	36103	1226031	0.144636	0.144636	100.00
97	Babylon	36103	1226032	0.530284	0.530284	100.00
98	Babylon	36103	1226033	0.250573	0.250573	100.00
99	Babylon	36103	1226034	0.129267	0.129267	100.00
100	Babylon	36103	1227041	0.073386	0.073386	100.00
101	Babylon	36103	1227043	0.008585	0.008585	100.00
102	Babylon	36103	1227044	0.384091	0.384091	100.00
103	Babylon	36103	1227051	0.049940	0.049940	100.00
104	Babylon	36103	1227052	0.346721	0.346721	100.00
105	Babylon	36103	1227053	0.167154	0.167154	100.00
106	Babylon	36103	1227054	0.153870	0.153870	100.00
107	Babylon	36103	1227063	0.127084	0.127084	100.00
108	Babylon	36103	1227064	0.100536	0.100536	100.00
109	Babylon	36103	1227065	0.370335	0.370335	100.00
110	Babylon	36103	1227071	0.118950	0.030243	25.42
111	Babylon	36103	1227072	0.170090	0.095285	56.02
112	Babylon	36103	1227073	0.806596	0.175377	21.74
113	Babylon	36103	1227074	0.049982	0.049619	99.27
114	Babylon	36103	1228011	0.352864	0.150170	42.56

115	Babylon	36103	1228012	0.143914	0.143914	100.00
116	Babylon	36103	1228013	0.141768	0.140781	99.30
117	Babylon	36103	1228014	0.180947	0.180947	100.00
118	Babylon	36103	1228019	0.822858	0.263442	32.02
119	Babylon	36103	1228021	0.213776	0.213542	99.89
120	Babylon	36103	1228022	0.333771	0.318193	95.33
121	Babylon	36103	1229011	0.222073	0.222073	100.00
122	Babylon	36103	1229012	0.168069	0.168069	100.00
123	Babylon	36103	1229013	0.138521	0.138521	100.00
124	Babylon	36103	1229014	0.098417	0.098417	100.00
125	Babylon	36103	1229015	0.105484	0.105484	100.00
126	Babylon	36103	1229021	0.357165	0.357165	100.00
127	Babylon	36103	1229022	0.276196	0.276196	100.00
128	Babylon	36103	1230011	0.222026	0.222026	100.00
129	Babylon	36103	1230012	0.105307	0.105307	100.00
130	Babylon	36103	1230013	0.179651	0.179651	100.00
131	Babylon	36103	1230014	0.253198	0.253198	100.00
132	Babylon	36103	1230021	0.304588	0.304588	100.00
133	Babylon	36103	1230022	0.274611	0.274611	100.00
134	Babylon	36103	1230023	0.100633	0.100633	100.00
135	Babylon	36103	1230024	0.078741	0.078741	100.00
136	Babylon	36103	1230025	0.036778	0.036778	100.00
137	Babylon	36103	1231011	0.870545	0.870545	100.00
138	Babylon	36103	1231012	0.108940	0.108319	99.43
139	Babylon	36103	1231013	0.073746	0.042480	57.60
140	Babylon	36103	1231021	0.205539	0.154000	74.93
141	Babylon	36103	1231022	0.134042	0.118743	88.59
142	Babylon	36103	1231023	0.150781	0.104834	69.53
143	Babylon	36103	1231024	0.172645	0.014463	8.38
144	Babylon	36103	1232011	0.835301	0.835301	100.00
145	Babylon	36103	1232015	0.091924	0.091924	100.00
146	Babylon	36103	1232021	0.165615	0.165615	100.00
147	Babylon	36103	1232022	0.356084	0.356084	100.00
148	Babylon	36103	1232023	0.354115	0.354115	100.00
149	Babylon	36103	1232024	0.161299	0.161299	100.00
150	Babylon	36103	1232025	0.129239	0.129239	100.00
151	Babylon	36103	1233011	0.227364	0.227364	100.00
152	Babylon	36103	1233012	0.094383	0.068416	72.49
153	Babylon	36103	1233013	0.224766	0.102674	45.68
154	Babylon	36103	1233015	0.194153	0.194153	100.00
155	Babylon	36103	1233023	0.116098	0.105414	90.80
156	Babylon	36103	1233024	0.123808	0.026502	21.41
157	Babylon	36103	1234011	0.576724	0.576724	100.00
158	Babylon	36103	1234012	0.120470	0.120470	100.00
159	Babylon	36103	1234013	0.165185	0.165185	100.00
160	Babylon	36103	1234021	0.187795	0.187795	100.00
161	Babylon	36103	1234022	0.313958	0.313958	100.00
162	Babylon	36103	1234023	0.133210	0.133210	100.00
163	Babylon	36103	1234024	0.072753	0.072753	100.00
164	Babylon	36103	1234025	0.273655	0.273655	100.00
165	Babylon	36103	1237011	0.104016	0.040380	38.82
166	Babylon	36103	1237012	0.209121	0.012589	6.02
167	Babylon	36103	1240011	0.057404	0.057404	100.00
168	Babylon	36103	1240012	0.081871	0.081871	100.00
169	Babylon	36103	1240013	0.050662	0.045558	89.93
170	Babylon	36103	1240014	0.143242	0.143242	100.00
171	Babylon	36103	1240015	0.151202	0.151202	100.00
172	Babylon	36103	1240016	0.091611	0.056614	61.80
173	Babylon	36103	1240021	0.187199	0.187199	100.00
174	Babylon	36103	1240022	0.134606	0.124742	92.67
175	Babylon	36103	1240023	0.137159	0.047581	34.69

176	Babylon	36103 1224032	1.037096	1.037096	100.00
	Totals:		62.559067	50.009914	

For Radius of 3 Mi., Circle Area = 28.274334

No.	City	Block Group ID	Total Area	Partial Area	% Within Radius
1	Oyster Bay	36059 52011	2.987586	0.263744	8.83
5	Oyster Bay	36059 52016	0.057825	0.057825	100.00
14	Oyster Bay	36059 5204011	0.143564	0.031894	22.22
15	Oyster Bay	36059 5204014	0.066324	0.021944	33.09
18	Oyster Bay	36059 5204022	0.121387	0.069962	57.64
20	Oyster Bay	36059 5204024	0.090480	0.008012	8.86
37	Babylon	36103 12434	0.310422	0.029062	9.36
43	Huntington	36103 1122061	1.889637	0.162743	8.61
44	Huntington	36103 1122062	3.638111	2.891149	79.47
45	Huntington	36103 1122063	1.402639	0.256783	18.31
46	Huntington	36103 1122071	0.636910	0.420750	66.06
47	Huntington	36103 1122072	1.688053	1.688053	100.00
48	Huntington	36103 1122073	1.003395	1.003395	100.00
49	Huntington	36103 1122089	0.752927	0.139305	18.50
53	Huntington	36103 1122129	1.415614	0.039816	2.81
54	Huntington	36103 1122132	0.183788	0.017165	9.34
55	Huntington	36103 1122133	0.060981	0.048835	80.08
56	Huntington	36103 1122139	2.261147	1.559274	68.96
57	Babylon	36103 1223019	0.328783	0.328783	100.00
58	Babylon	36103 1223021	1.738505	1.738505	100.00
59	Babylon	36103 1223022	0.176434	0.176434	100.00
60	Babylon	36103 1223023	1.441314	1.441312	100.00
61	Babylon	36103 1223029	0.987944	0.987944	100.00
62	Babylon	36103 1224031	0.705081	0.705081	100.00
64	Babylon	36103 1224033	1.443012	1.443012	100.00
65	Babylon	36103 1224043	0.111853	0.111853	100.00
66	Babylon	36103 1224044	0.133095	0.133095	100.00
67	Babylon	36103 1224045	0.102566	0.102566	100.00
68	Babylon	36103 1224046	0.095141	0.095141	100.00
69	Babylon	36103 1224049	0.597099	0.597099	100.00
70	Babylon	36103 1224051	0.328326	0.328326	100.00
71	Babylon	36103 1224052	0.062898	0.062898	100.00
72	Babylon	36103 1224053	0.222543	0.222543	100.00
73	Babylon	36103 1224062	0.091735	0.091735	100.00
74	Babylon	36103 1224063	0.147060	0.147060	100.00
75	Babylon	36103 1224064	0.144219	0.144219	100.00
76	Babylon	36103 1224065	0.193029	0.193029	100.00
77	Babylon	36103 1224066	0.182750	0.182750	100.00
78	Babylon	36103 1225011	0.254271	0.254271	100.00
79	Babylon	36103 1225012	0.390464	0.390464	100.00
80	Babylon	36103 1225015	0.208157	0.208157	100.00
81	Babylon	36103 1225021	0.145014	0.145014	100.00
82	Babylon	36103 1225022	0.235421	0.235421	100.00
83	Babylon	36103 1225023	0.205597	0.205597	100.00
84	Babylon	36103 1225024	0.180048	0.180048	100.00
85	Babylon	36103 1225025	0.112631	0.112631	100.00
86	Babylon	36103 1226011	0.155801	0.000467	0.30
88	Babylon	36103 1226013	0.134345	0.121868	90.71
89	Babylon	36103 1226014	0.146448	0.146448	100.00
90	Babylon	36103 1226015	0.146910	0.146910	100.00

91	Babylon	36103 1226016	0.150017	0.149545	99.69
92	Babylon	36103 1226021	0.116789	0.112302	96.16
93	Babylon	36103 1226022	0.169477	0.158477	93.51
94	Babylon	36103 1226023	0.206274	0.206274	100.00
95	Babylon	36103 1226024	0.118138	0.118138	100.00
97	Babylon	36103 1226032	0.530284	0.285841	53.90
98	Babylon	36103 1226033	0.250573	0.224887	89.75
99	Babylon	36103 1226034	0.129267	0.105377	81.52
100	Babylon	36103 1227041	0.073386	0.046002	62.68
101	Babylon	36103 1227043	0.008585	0.008585	100.00
102	Babylon	36103 1227044	0.384091	0.384091	100.00
103	Babylon	36103 1227051	0.049940	0.034530	69.14
104	Babylon	36103 1227052	0.346721	0.340113	98.09
105	Babylon	36103 1227053	0.167154	0.167154	100.00
106	Babylon	36103 1227054	0.153870	0.153870	100.00
109	Babylon	36103 1227065	0.370335	0.000117	0.03
121	Babylon	36103 1229011	0.222073	0.222073	100.00
122	Babylon	36103 1229012	0.168069	0.168069	100.00
123	Babylon	36103 1229013	0.138521	0.138521	100.00
124	Babylon	36103 1229014	0.098417	0.098417	100.00
125	Babylon	36103 1229015	0.105484	0.105484	100.00
126	Babylon	36103 1229021	0.357165	0.330477	92.53
127	Babylon	36103 1229022	0.276196	0.276196	100.00
128	Babylon	36103 1230011	0.222026	0.222026	100.00
129	Babylon	36103 1230012	0.105307	0.105307	100.00
130	Babylon	36103 1230013	0.179651	0.159469	88.77
131	Babylon	36103 1230014	0.253198	0.253198	100.00
132	Babylon	36103 1230021	0.304588	0.239777	78.72
133	Babylon	36103 1230022	0.274611	0.004897	1.78
134	Babylon	36103 1230023	0.100633	0.061132	60.75
135	Babylon	36103 1230024	0.078741	0.078741	100.00
137	Babylon	36103 1231011	0.870545	0.192979	22.17
144	Babylon	36103 1232011	0.835301	0.498157	59.64
147	Babylon	36103 1232022	0.356084	0.231297	64.96
148	Babylon	36103 1232023	0.354115	0.018107	5.11
157	Babylon	36103 1234011	0.576724	0.484091	83.94
160	Babylon	36103 1234021	0.187795	0.060821	32.39
161	Babylon	36103 1234022	0.313958	0.151737	48.33
162	Babylon	36103 1234023	0.133210	0.133207	100.00
163	Babylon	36103 1234024	0.072753	0.072753	100.00
164	Babylon	36103 1234025	0.273655	0.273655	100.00
173	Babylon	36103 1240021	0.187199	0.002623	1.40
176	Babylon	36103 1224032	1.037096	1.037096	100.00
	Totals:		41.567295	28.206003	

For Radius of 2 Mi., Circle Area = 12.566371

No.	City	Block Group ID	Total Area	Partial Area	% Within Radius
44	Huntington	36103 1122062	3.638111	0.655751	18.02
47	Huntington	36103 1122072	1.688053	0.718183	42.55
48	Huntington	36103 1122073	1.003395	0.987379	98.40
56	Huntington	36103 1122139	2.261147	0.174066	7.70
57	Babylon	36103 1223019	0.328783	0.022822	6.94
58	Babylon	36103 1223021	1.738505	1.196999	68.85
60	Babylon	36103 1223023	1.441314	0.388711	26.97
61	Babylon	36103 1223029	0.987944	0.792479	80.22

62	Babylon	36103 1224031	0.705081	0.705081	100.00
64	Babylon	36103 1224033	1.443012	1.443012	100.00
65	Babylon	36103 1224043	0.111853	0.109174	97.60
66	Babylon	36103 1224044	0.133095	0.096523	72.52
67	Babylon	36103 1224045	0.102566	0.025727	25.08
69	Babylon	36103 1224049	0.597099	0.597099	100.00
70	Babylon	36103 1224051	0.328326	0.328326	100.00
71	Babylon	36103 1224052	0.062898	0.062898	100.00
72	Babylon	36103 1224053	0.222543	0.100689	45.24
73	Babylon	36103 1224062	0.091735	0.091735	100.00
74	Babylon	36103 1224063	0.147060	0.147060	100.00
75	Babylon	36103 1224064	0.144219	0.144219	100.00
76	Babylon	36103 1224065	0.193029	0.193029	100.00
77	Babylon	36103 1224066	0.182750	0.182750	100.00
78	Babylon	36103 1225011	0.254271	0.254271	100.00
79	Babylon	36103 1225012	0.390464	0.377551	96.69
80	Babylon	36103 1225015	0.208157	0.208157	100.00
81	Babylon	36103 1225021	0.145014	0.145014	100.00
82	Babylon	36103 1225022	0.235421	0.100817	42.82
83	Babylon	36103 1225023	0.205597	0.150747	73.32
84	Babylon	36103 1225024	0.180048	0.158367	87.96
85	Babylon	36103 1225025	0.112631	0.112631	100.00
89	Babylon	36103 1226014	0.146448	0.093941	64.15
94	Babylon	36103 1226023	0.206274	0.022488	10.90
95	Babylon	36103 1226024	0.118138	0.010039	8.50
101	Babylon	36103 1227043	0.008585	0.008585	100.00
102	Babylon	36103 1227044	0.384091	0.204542	53.25
105	Babylon	36103 1227053	0.167154	0.040169	24.03
106	Babylon	36103 1227054	0.153870	0.001146	0.75
121	Babylon	36103 1229011	0.222073	0.204124	91.92
124	Babylon	36103 1229014	0.098417	0.046493	47.24
125	Babylon	36103 1229015	0.105484	0.084011	79.64
128	Babylon	36103 1230011	0.222026	0.001662	0.75
131	Babylon	36103 1230014	0.253198	0.140821	55.62
176	Babylon	36103 1224032	1.037096	1.037096	100.00
	Totals:		22.406971	12.566384	

For Radius of 1 Mi., Circle Area = 3.141593

No.	City	Block Group ID	Total Area	Partial Area	% Within Radius
48	Huntington	36103 1122073	1.003395	0.003364	0.34
58	Babylon	36103 1223021	1.738505	0.084356	4.85
61	Babylon	36103 1223029	0.987944	0.020764	2.10
62	Babylon	36103 1224031	0.705081	0.508322	72.09
64	Babylon	36103 1224033	1.443012	1.047023	72.56
70	Babylon	36103 1224051	0.328326	0.000020	0.01
71	Babylon	36103 1224052	0.062898	0.000139	0.22
73	Babylon	36103 1224062	0.091735	0.004693	5.12
74	Babylon	36103 1224063	0.147060	0.023961	16.29
75	Babylon	36103 1224064	0.144219	0.131424	91.13
76	Babylon	36103 1224065	0.193029	0.193029	100.00
77	Babylon	36103 1224066	0.182750	0.145264	79.49
176	Babylon	36103 1224032	1.037096	0.979234	94.42
	Totals:		8.065050	3.141593	

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For Radius of .5 Mi., Circle Area = 0.785398

No.	City	Block Group ID	Total Area	Partial Area	% Within Radius
62	Babylon	36103 1224031	0.705081	0.044242	6.27
64	Babylon	36103 1224033	1.443012	0.298721	20.70
76	Babylon	36103 1224065	0.193029	0.089765	46.50
176	Babylon	36103 1224032	1.037096	0.352670	34.01
	Totals:		3.378218	0.785398	

For Radius of .25 Mi., Circle Area = 0.196350

No.	City	Block Group ID	Total Area	Partial Area	% Within Radius
64	Babylon	36103 1224033	1.443012	0.086116	5.97
76	Babylon	36103 1224065	0.193029	0.008525	4.42
176	Babylon	36103 1224032	1.037096	0.101708	9.81
	Totals:		2.673137	0.196350	

US Electroplating
Babylon, NY

========== Site Data ==========

Population:	169383.42
Households:	53954.25
Drilled Wells:	90.00
Dug Wells:	416.40
Other Water Sources:	134.37

========== Partial (RING) data ==========

---- Within Ring: 4 Mile(s) and 3 Mile(s) ----

Population:	89245.18
Households:	29437.50
Drilled Wells:	22.30
Dug Wells:	137.70
Other Water Sources:	67.21

** Population On Private Wells: 485.09

---- Within Ring: 3 Mile(s) and 2 Mile(s) ----

Population:	52912.42
Households:	16672.99
Drilled Wells:	13.71
Dug Wells:	85.16
Other Water Sources:	11.83

** Population On Private Wells: 313.75

---- Within Ring: 2 Mile(s) and 1 Mile(s) ----

Population:	22755.31
Households:	6620.11
Drilled Wells:	25.22
Dug Wells:	148.55
Other Water Sources:	47.51

** Population On Private Wells: 597.31

---- Within Ring: 1 Mile(s) and .5 Mile(s) ----

Population:	3744.35
Households:	1047.47
Drilled Wells:	22.98
Dug Wells:	38.77
Other Water Sources:	7.82

** Population On Private Wells: 220.71

US Electroplating
Babylon, NY

---- Within Ring: .5 Mile(s) and .25 Mile(s) ----

Population:	620.60
Households:	150.93
Drilled Wells:	4.84
Dug Wells:	5.24
Other Water Sources:	0.00

** Population On Private Wells: 41.45

---- Within Ring: .25 Mile(s) and 0 Mile(s) ----

Population:	105.56
Households:	25.24
Drilled Wells:	0.95
Dug Wells:	0.99
Other Water Sources:	0.00

** Population On Private Wells: 8.10

REFERENCE NO. 15

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

FILE

Ben

Thomas C. Jorling
Commissioner

OCT 1 2 1990

FILE COPY

Mr. Vincent Pitruzzello
Chief, Program Support Branch
United States Environmental Protection Agency
Region II
26 Federal Plaza
New York, New York 10278

Dear Mr. Pitruzzello:

Re: Addendum to the Phase II Final Report
U.S. Electroplating Corp. Site, ID #152027

Please find enclosed one copy of the referenced addendum to our Phase II report which was transmitted to you on April 6, 1990.

If you have any questions concerning the addendum, please contact Mr. John Swartwout, of my staff, at (518) 457-0639.

Sincerely,

Earl H. Barcomb, P.E.
Director
Bureau of Hazardous Site Control
Div. of Hazardous Waste Remediation

Enclosure

Phase II Investigation
U.S. Electroplating Corporation
Town of Babylon, Suffolk County
Site No. 152027

Addendum to the Final Report

October 1990

INTRODUCTION

The Final Report on the Phase II investigation of the U.S. Electroplating Corporation Site was completed in April 1990. Although the Phase II investigation concluded that groundwater in two of the three monitoring wells was contaminated at levels exceeding groundwater standards, no conclusions were able to be drawn about whether U.S. Electroplating Corporation was the source. The reason for this inconclusive result was the unexpected finding that the groundwater flow direction at the site was apparently in the opposite direction (northerly) of the regional groundwater flow (southerly). In addition, the groundwater elevation data collected on December 7, 1988, May 18, 1989, and November 20, 1989 appears to be anomalous in that it showed large differences in groundwater elevations both spacially and temperally. These differences did not seem reasonable given the proximity of the wells to one another and the sandy soil conditions.

Consequently, a decision was made to further investigate the groundwater conditions at this site. This supplemental investigation consisted of taking five additional sets of groundwater elevation readings and resampling the three wells. The supplemental investigation and its findings are described in this Addendum.

ADDITIONAL INVESTIGATIONS

Initially, all available information concerning groundwater recharge and withdrawals in the immediate vicinity of U.S. Electroplating Corporation was reviewed in an attempt to determine the cause of the anomalous groundwater elevations measured in December 1988, May 1989 and November 1989 (see Table 1). No cause could be found. It was concluded that the elevation data was most likely erroneous.

On five occasions between April and August 1990 Department of Environmental Conservation (DEC) personnel visited the site and recorded groundwater elevations at the three monitoring wells. The elevation data is included in Table 1. In all cases the groundwater flow direction was found to be toward the south. In every case MW-2 was found to be upgradient of the disposal locations while MW-1 and MW-3 were found to be ground-gradient or downgradient. Elevation differences between the wells were found to be small on each occasion, as expected.

On the same day as the final groundwater level measurements, DEC personnel sampled the three wells and sent the samples to a DEC contract laboratory for analysis. Analytical results of both the November 28, 1988 and August 6, 1990 samples are summarized in Table 2. Both sampling events showed cadmium, chromium, and lead at significantly higher levels in downgradient/cross-gradient wells (MW-1 and MW-3) than in the upgradient well (MW-2). In most cases the downgradient samples were in contravention of groundwater standards for these three parameters. The November 1988 sampling event found trichloroethene and tetrachloroethene at levels exceeding State standards in both downgradient wells while it was not detected in the upgradient well. The August 1990 sampling event found carbon disulfide in both downgradient wells but not in the upgradient well. The levels did not exceed the State standard.

FINDINGS

The previously documented disposal of hazardous wastes at the U.S. Electroplating Corporation site has been found to have contaminated the local groundwater with metals and, to a lesser degree, volatile organic compounds. New York State ambient groundwater standards have been violated in the downgradient wells while levels in the upgradient well are significantly lower and/or below the standards. This contravention of standards is indicative of the significant threat to the environment posed by this site. This threat is amplified by the fact that the site sits over a sole source aquifer. The combination of hazardous waste disposal and significant threat posed by this site qualify it for reclassification to Class 2 on the Registry of Inactive Hazardous Waste Disposal Sites in New York State.

Table 1

GROUNDWATER ELEVATION MEASUREMENTS

Date Measured	Well Number	Elevation of Top of Well Casing	Elevation of Standing Water
12-07-88	MW-1	103.00 feet	83.378 feet
	MW-2	99.54	80.082
	MW-3	101.87	86.22
3-18-89	MW-1	103.00	87.51
	MW-2	99.54	87.11
	MW-3	101.87	87.795
11-20-89	MW-1	103.00	89.333
	MW-2	99.54	86.457
	MW-3	101.87	88.995
4-27-90	MW-1	103.00	87.76
	MW-2	99.54	88.123
	MW-3	101.87	87.88
6-13-90	MW-1	103.00	89.203
	MW-2	99.54	89.587
	MW-3	101.87	89.328
6-25-90	MW-1	103.00	88.906
	MW-2	99.54	89.248
	MW-3	101.87	88.99
8-3-90	MW-1	103.00	87.948
	MW-2	99.54	88.311
	MW-3	101.87	88.047
8-6-90	MW-1	103.00	87.885
	MW-2	99.54	88.269
	MW-3	101.87	87.985

TABLE 2
SAMPLING RESULTS SUMMARY TABLE
Groundwater Samples
Collected 11-28-88/8-6-90

Parameter	(Downgradient) MW-1	(Background) MW-2	(Downgradient) MW-3	MW-4	Field Blank (11/28/88)	Trip Blank (11/28/88)	Standard
(A) Inorganics							
Barium	33/319	7/151	37/309	37	ND	--	1000
Cadmium	ND/17.6	ND/210	121/643	123	ND	--	10
Chromium	3/210	17/63.4	272/367	280	ND	--	50
Copper	7/111	ND/54.6	5/178	2	ND	--	1000
Iron	446/150,000	638/32,000	706/65,400	500	35	--	300
Manganese	61/11,500	176/6,940	141/4,730	124	ND	--	300
Lead	ND/129	ND/45.8	ND/111				25
(B) Volatile Organics							
Methylene Chloride	18/7	15/8	23/7	19	23	20	5
Acetone	9/8	6/ND	7/ND	11	ND	9	50
1,1-Dichloro-ethane	ND/ND	ND/ND	5/ND	3	ND	ND	5

NOTE: All values represented in parts per billion (ppb).
* Sample MW-4 represents a quality control sample collected 11/28/88 from Monitoring Well 3.

TABLE 2
SAMPLING RESULTS SUMMARY TABLE
Groundwater Samples
Collected 11-28-88/8-6-90

Parameter	MW-1	MW-2	MW-3	MW-4*	Blank (11-28-88)	Blank (11-28-88)	Standard
(B) Volatile Organics (Continued)							
Chloroform	ND/ND	ND/ND	1/ND	ND	ND	1	100
2-Butanone	5/ND	ND/ND	6/ND	6	6	4	50
1,1,1-Tri-chloroethane	ND/ND	ND/ND	8/ND	9	ND	3	5
Trichloroethane	6/ND	ND/ND	38/ND	35	ND	ND	5
4-Methyl-2-Pentanone	2/ND	ND/ND	ND/ND	ND	ND	ND	5
Benzene	ND/ND	ND/ND	3/ND	5	ND	ND	ND
Tetrachloro-ethene	25/4	ND/4	7/2	5	ND	3	ND
Toluene	ND/ND	ND/ND	5/ND	ND	ND	ND	5
Carbon Disulfide	ND/28	ND/ND	ND/3				50
TIC	34/ND	42/ND	40/ND	43	42	34	--

NOTE: All values represented in ppb.
TIC = Tentatively Identified Compounds.

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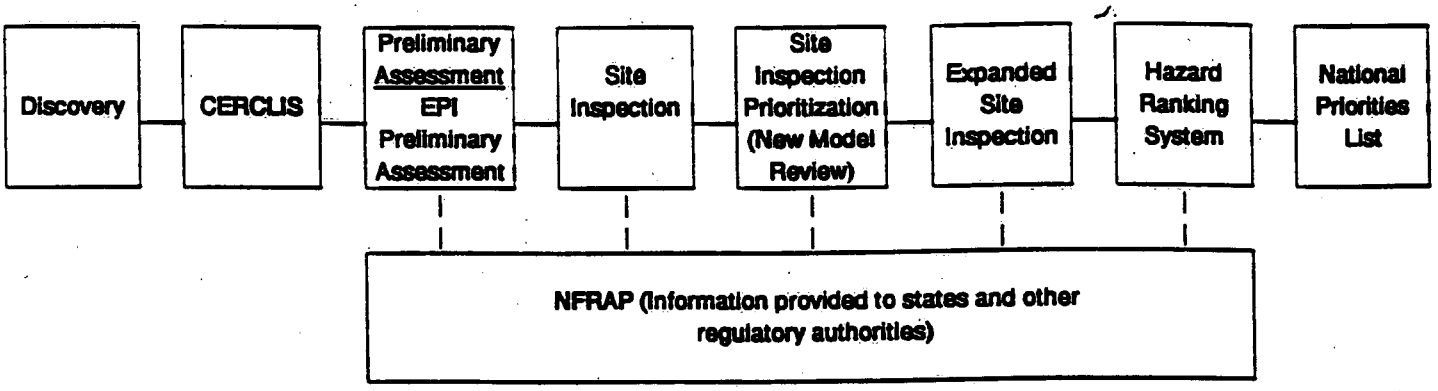
ATTACHMENT 3

SUPERFUND SITE ASSESSMENT PROGRAM



SITE ASSESSMENT REPORTS

1. PRELIMINARY ASSESSMENT
   - Quick Review of Readily Accessible Records and Reports
   - Undertaken to Determine the Existence of a Problem and the Need for Further Action at a Site by Characterizing:
     - Magnitude of the Hazard
     - Source and Nature of the Release or Potential Release
     - Identification of Targets
   - Does Not Include Sample Collection
2. SITE INSPECTION
   - The Purpose of the Site Inspection is to:
     - Further Define and Characterize the Problem
     - Provide Data for the Hazard Ranking System (HRS) Scoring and Compute Initial Score
     - Identification of Targets
     - Determine the Necessity of Further Action
   - The Site Inspection Involves an On-Site Visit and Sampling (10+/- Samples)
   - A Site Inspection is not an Extent of Contamination Study
3. SITE INSPECTION PRIORITIZATION
   - Quick Review of Readily Accessible Records and Reports
   - Undertaken to Determine the Validity and Update Background Conditions Under the New HRS Model, and the Need for Further Action at a Site by Characterizing:
     - Magnitude of the Hazard
     - Source and Nature of the Release or Potential Release
   - Included On-Site Visits or Sample Collection as needed
     - Analyze Samples/Limited Analytical Resources
     - Account for Significant Safety Hazards On-Site
4. EXPANDED SITE INSPECTION

   A Follow-Up Inspection May Be Recommended After the SI To:
   - Gather Additional Data Necessary to Strengthen or Substantiate the Initial HRS Score
     - Geophysical Surveys
     - Installation of Groundwater Monitoring Wells
     - Additional Sampling

Review of Analytical Data

If previous analytical data are available, they should be reviewed for information which supports the design of the sampling and analysis program, tests site hypotheses, and documents the site score. The Site Investigation (SI) investigator should review all previous analytical data. While analytical data collected for other purposes may not meet SI objectives, site-specific analytical data are generally helpful in better understanding the nature of the problem at the site, regardless of data sources or data quality. The depth of the review depends on the overall quality and quantity of data, the intended use of the data, and whether they are representative of current site conditions and comparable to SI data. Determining whether available data can be applied as SI-generated data requires the professional judgement of an experienced reviewer. Both validated and non-validated analytical data may be available. Previous SI data will be validated and of CLP-quality. Non-validated data may contain false positive and false negatives, as well as quantitation, transcription, and calculation errors. If data of unknown or questionable quality are used for decision-making, the investigator should review all available information to assess the level of certainty associated with the data. If these data are used for HRS documentation, data validation will be necessary. The investigator should be able to determine the general quality of the data set by reviewing QC data for evaluation under the Superfund Program.