

**ENGINEERING INVESTIGATION OF
INACTIVE HAZARDOUS WASTE SITES**

- PHASE II INVESTIGATIONS -

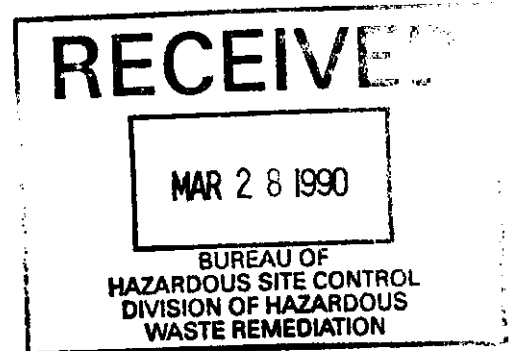
South Montclair Avenue Landfill
Site No: 152042
Town of Smithtown, Suffolk County
Final - March 1990



Prepared for:
New York State
Department of
Environmental Conservation

50 Wolf Road, Albany, New York 12233-7010
Thomas C. Jorling, Commissioner

Division of Hazardous Waste Remediation
Michael J. O'Toole Jr., P.E., Director



Prepared by:
ROUX ASSOCIATES, INC.
775 Park Avenue
Huntington, New York 11743

Subcontractor to:
Gibbs & Hill, Inc.
New York, NY

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I EXECUTIVE SUMMARY

Roux Associates, Inc. (Roux Associates) was subcontracted by Gibbs & Hill, Inc. to conduct a Phase II investigation of the South Montclair Landfill Site (ID No. 152042) for the New York State Department of Environmental Conservation (NYSDEC). A Phase II Work Plan Update prepared by Roux Associates was submitted to NYSDEC in October 1988. This report presents the results of the Phase II investigation.

The South Montclair Landfill (Site), located in the Town of Smithtown, Suffolk County, New York (Figure 1) is currently owned by the Town of Smithtown, and consists of an unlined 20-acre landfill currently used for leaf mulching and storage of highway department materials.

The Site was used as a municipal landfill from 1967 until 1970, when the Town of Smithtown moved its major landfill operation to Kings Park (Reference 2 in Section V). During the mid-70's, home owners located north and northwest of the landfill (Arthur Drive) began filing complaints against the landfill for emitting methane gas and odors (Reference 21 in Section V). In some cases, potentially explosive concentrations of methane were detected in the basements of homes located on the landfill perimeter (Reference 22 in Section V). In March 1986, the Town of Smithtown retained Velzy Associates, a consulting engineering firm, to design a methane migration control system at the South Montclair Landfill. The system was designed to prevent off-site migration of methane gas to the surrounding soils (Reference 23 in Section V). The proposed system

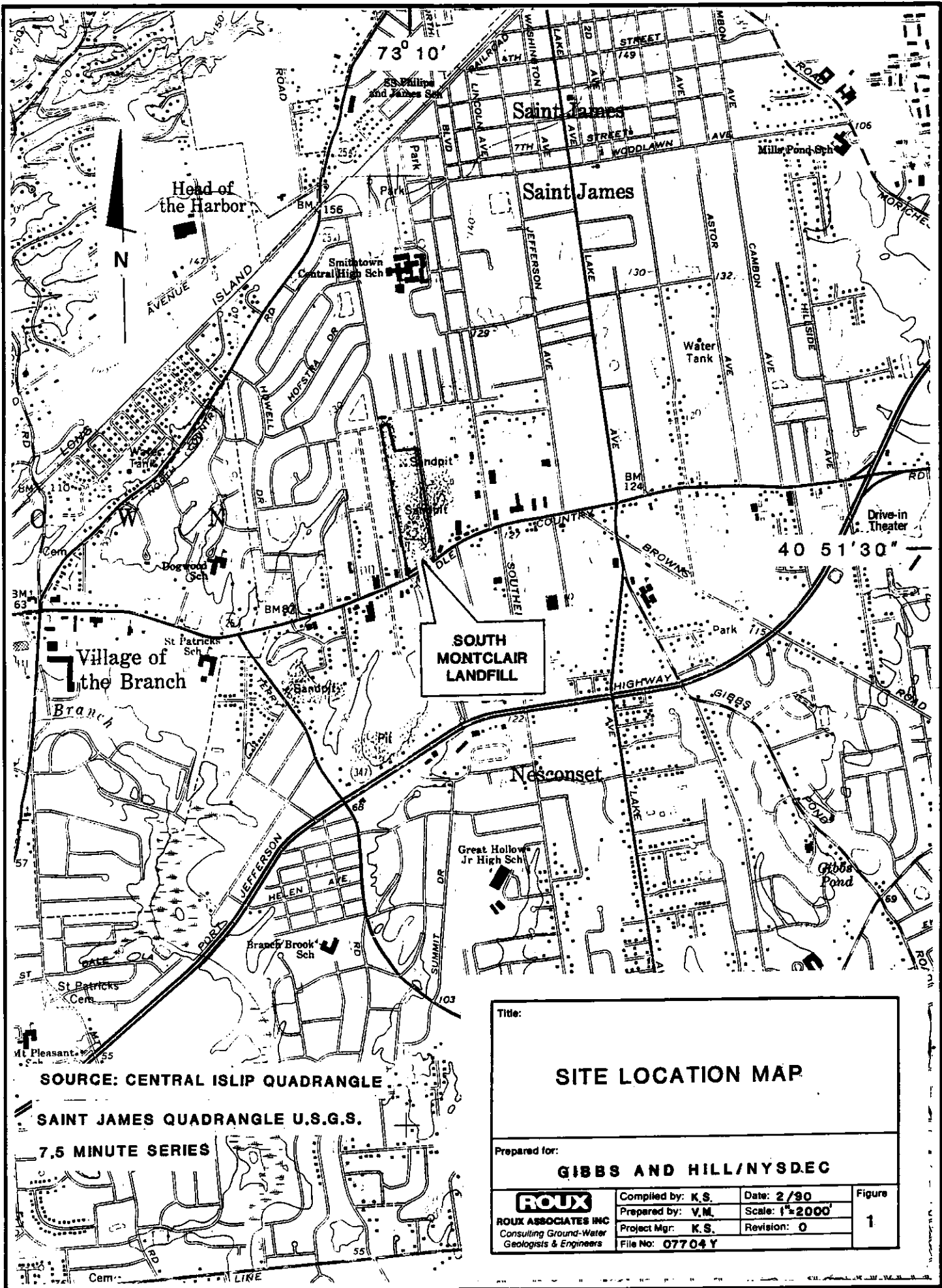
has been installed, and consists of several wells which connect to a common pipe and motor/blower. The system discharges any gas which collects in the well to the atmosphere. This system is located within a fenced-in area on the east side of the landfill (Reference 12 in Section V).

Several changes in the Site have been noted by Roux Associates since the completion of the Phase I report in 1985. Soccer fields are no longer located in the northeast corner of the Site (Figure 2). The Site extends north to a barbed wire fence and a new house has been built just north of the fence on Montclair Avenue. A recharge basin (about 450 feet by 100 feet) has been excavated along the western property line of the landfill and is completely fenced-in. A new residential development has been built west of the recharge basin.

Although construction is still in progress, the neighborhood is partially occupied. On the western edge of the Site, the landfill's fence is completely missing in several areas and the Site may be accessed within the vicinity of the recharge basin either on foot or by vehicle. Breaks in the fence and bike trails were also seen in the methane venting area. Children were actively using these paths during our site reconnaissance.

The landfill is now completely filled, although evidence of recent dumping of concrete, asphalt, soil, wood, trash and sewer sludge disposal was observed by Roux Associates.

A Phase II investigation of the Site was conducted by Roux Associates to gather sufficient information to classify the Site for further action and to calculate the final Hazardous Ranking System (HRS) scores. Field investigations included a site reconnaissance, a

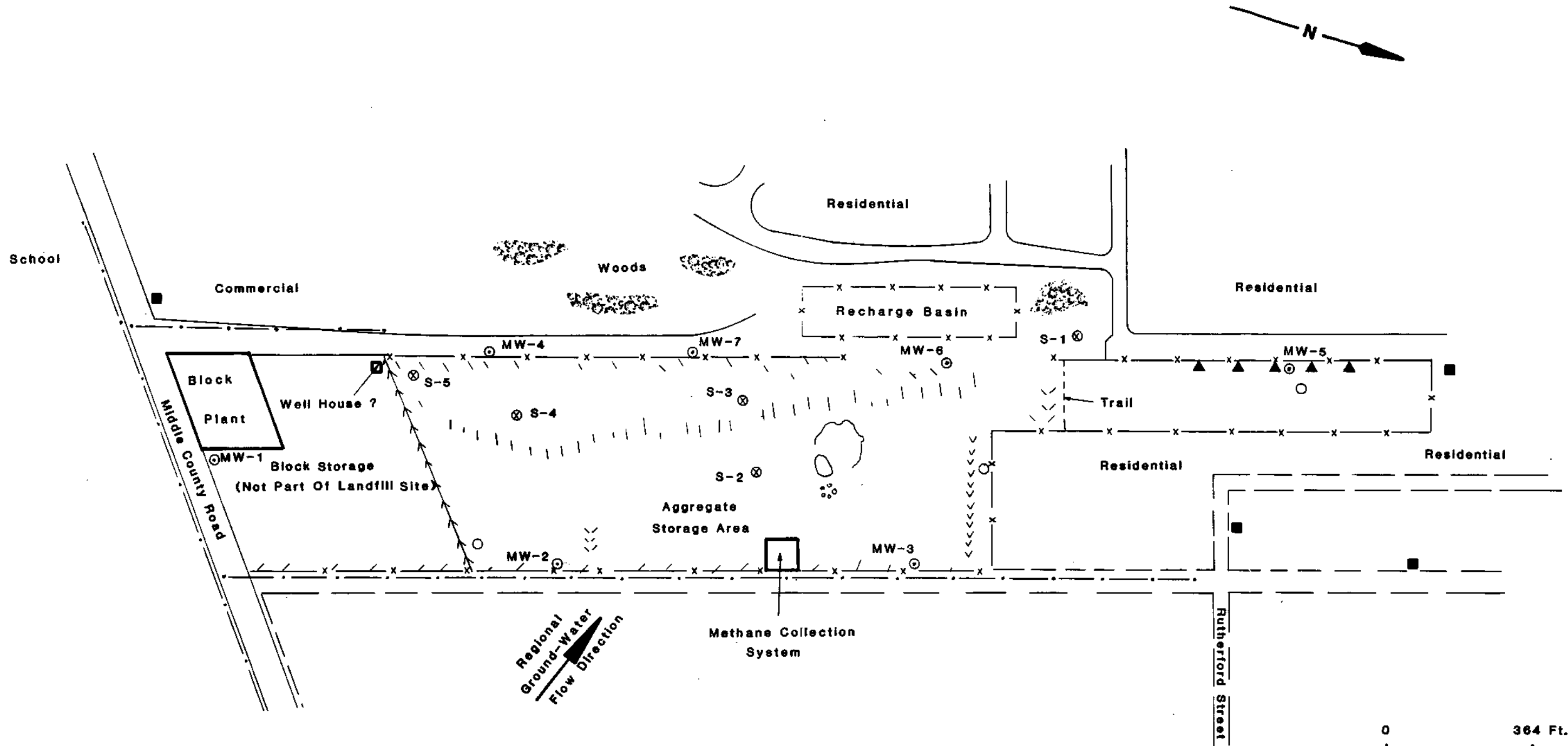


SOURCE: CENTRAL ISLIP QUADRANGLE

SAINT JAMES QUADRANGLE U.S.G.S.

7.5 MINUTE SERIES

Title:			
SITE LOCATION MAP			
Prepared for:			
GIBBS AND HILL/NYSDEC			
ROUX ROUX ASSOCIATES INC Consulting Ground-Water Geologists & Engineers	Compiled by: K.S.	Date: 2/90	Figure
	Prepared by: V.M.	Scale: 1"=2000'	1
	Project Mgr: K.S.	Revision: 0	
File No: 07704Y			



- LEGEND -

- x — x — x Fence
- — — Above Ground Power Line
- ⊙ Monitoring Well
- ⊗ Soil Sample
- Existing 4-Inch PVC Well (Methane)
- ▲ 10-Ft. Concrete Methane Vents
- — — Drill Hole Access Route
- /// Berm-Fill Piles
- Water Hydrant

Site Visit 9-19-88

TITLE		
SOUTH MONTCLAIR LANDFILL SMITHTOWN, SUFFOLK COUNTY, NY		
PREPARED FOR		
GIBBS AND HILL / NYSDEC		
Consulting Ground-Water Geologists 	SCALE SHOWN	FIGURE
	8/89	2

geophysical survey, installation of seven ground-water monitoring wells, and collection of eight ground-water samples. Ground water was analyzed to determine the occurrence and define the extent of potential contamination at the South Montclair Landfill Site.

The landfill is known to have accepted concrete blocks, wooden pallets, plastic wrapping, household waste, and brush and leaf material. There has been no evidence of hazardous waste disposal at the Site. Only low concentrations of organic compounds were detected in ground-water, and these concentrations are not significantly higher in the downgradient wells than in the upgradient wells. Arsenic, chromium, and lead were also detected in all the ground-water samples. However, discrepancies between duplicate samples and the contamination of field blanks make conclusions concerning the possible impact of Site activities on ground water impossible. It could not be determined if hazardous substances have been released from the Site.

The final HRS scores for the South Montclair Landfill Site based upon this Phase II investigation have been calculated as follows (see Section V):

$$S_M = 1.46$$

$$S_{GW} = 2.53$$

$$S_{SW} = 0$$

$$S_A = 0$$

$$S_{DC} = 0$$

$$S_{FE} = \text{Not applicable}$$

The S_M score reflects the potential for impacts due to the migration of hazardous substances away from the Site. This score is the composite of scores for ground water (S_{GW}), surface water (S_{SW}), and air (S_A) transport routes. The S_{FE} score reflects the potential for harm from substances which can explode or cause fires, and the S_{DC} score reflects the potential harm from direct contact with hazardous substances.

II PURPOSE

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

At this Site the objective of the investigation was to collect the information required to classify the Site for further action and to develop final HRS scores. This included collecting the field data necessary to identify the occurrence and characteristics of contamination and determine if a release of contaminants from the Site has occurred. These data were used to determine if any imminent and/or significant environmental or health hazard exists. These objectives were accomplished through the installation of ground-water monitoring wells and the sampling and analysis of ground-water samples.

III SCOPE OF WORK

A Phase II investigation was performed at the South Montclair Landfill, Town of Smithtown, New York (Figure 1), in order to characterize the subsurface conditions at the Site (i.e. soil, stratigraphy, ground-water flow, and ground-water quality) and to identify the nature and extent of potential ground-water contamination. An updated work plan was submitted by Roux Associates to define the scope of drilling and sampling at the Site. The Phase II investigation was comprised of a review of relevant literature, field investigations and the preparation of final HRS scores. Relevant literature and historic data are provided in Appendix A.

A. Introduction

The field investigation conducted by Roux Associates (Huntington, New York) from September 1988 through March 1989, included a site reconnaissance, geophysical survey, the installation of seven monitoring wells and soil and ground-water sampling and analysis.

B. Geophysical Survey

Geophysical surveys were conducted at the Site on July 27, 1988 to characterize subsurface conditions. A magnetometer was used at proposed monitoring well locations to detect ferromagnetic objects which might be encountered during drilling. Major magnetometer responses were observed at NYSDEC well locations MW-5 and MW-6. Locations were adjusted in the nearby vicinity until acceptably clear areas were found. Some locations

contained small discrete areas of response probably due to small near-surface objects. There were no indications of large buried objects which might interfere with drilling activities at the other well locations. Field procedures and results of the survey were submitted as part of the Phase II Work Plan Update.

C. Air Survey

In accordance with the Site Health and Safety Plan (contained in Roux Associates' Phase II Work Plan Update), a portable organic vapor monitoring instrument (OVM Model 580 A) was used to monitor the air in the working zone for organic vapors during site activities. In addition, split-spoon samples were scanned with the OVM immediately upon their removal from the split spoon.

D. Soil Sampling

Soil sampling at the Site included the collection of split-spoon samples for geologic logging and field screening for potential contamination and the collection of soil samples for grain size analysis.

Split-spoon samples were collected every five feet from the land surface to the bottom of the borings drilled for monitoring wells as described in Appendix B. Each sample was field screened using a portable organic vapor monitoring instrument (OVM Model 580 A) for the presence of organic vapors. Geologic logs are presented in Appendix C.

Seven soil samples were collected from October 24 to November 8, 1988 from the screened zone of each of the monitoring wells. Grain size analyses were performed to confirm the pre-selected screen slot size and to characterize the aquifer materials at the water table.

The analytical results are discussed in Section IV D. Chain of custody documentation is provided in Appendix D and laboratory data sheets are provided in Appendix E.

E. Monitoring Well Installation

Seven monitoring wells were installed from October 24 through November 8, 1988, at the locations shown on Figure 2, by Marine Pollution Control (E. Patchogue, New York) under the supervision of a hydrogeologist from Roux Associates. Monitoring well installation procedures are described in Appendix B. Monitoring well construction details are presented in Table 1, and well construction diagrams are given in Appendix C.

F. Ground-Water Sampling and Analysis

Eight ground-water samples, including one duplicate, were collected on November 11, 1988 following the procedures outlined in Appendix B. The samples were analyzed for Target Compound List (TCL) metals, volatiles, semi-volatiles and pesticides/PCBs. H2M Labs (Melville, New York) performed the analyses in accordance with November 1987 NYSDEC Contract Laboratory Protocols (CLP). The analytical results are discussed in Section IV E and included in Appendix E.

Table 1. Monitoring Well Construction Details, So. Montclair Avenue Landfill, Smithtown, New York

Well No.	Bottom of Boring (ft)	1 Screened Zone (ft)	Elevation of Measuring Point (ft)	23 of Measuring Point (ft)	4 Height of Measuring Point (ft)	3 Land Surface Elevation	Well Diameter (inches)
MW-1	51.5	39-49	88.48	2.28	86.2	2	
MW-2	54.5	42-52	99.44	2.14	90.3	2	
MW-3	66.5	54-64	102.78	2.18	100.6	2	
MW-4	64.5	52-62	100.34	1.44	98.9	2	
MW-5	77.5	65-75	112.02	2.25	109.9	2	
MW-6	65.5	53-63	101.56	2.06	99.5	2	
MW-7	64.5	52-62	101.95	2.12	99.7	2	

Note: 1 - Boring depths and screen zones were measured in feet below land surface.
 2 - Measuring point of all monitoring wells is the top of the PVC casing.
 3 - Elevations are relative to a common datum.
 4 - Measurement from land surface to measuring point.

G. Aquifer Testing

The hydrologic characteristics of the aquifer were determined through the performance of slug tests. Water levels in the ground-water monitoring wells were measured to determine the direction of flow of ground water at the Site.

Water-level measurements collected on November 10, 1988 and April 5, 1989 are presented in Table 2 are discussed in detail in Section IV D.

Monitoring wells GW-1 through GW-7 were slug tested to determine the hydraulic characteristics of the shallow materials surrounding the screens. Falling head and rising head slug tests were conducted. The results are discussed in detail in Section IV D.

X

Table 2. Water Level Measurements Collected on November 10, 1988 and April 5, 1989 at South Montclair Avenue Landfill, Smithtown, N.Y.

Well No.	Elevation of Measuring Point (1)	November 10, 1988		April 5, 1989	
		Depth to Water (ft) (2)	Elevation of Water Table (1)	Depth to Water (ft) (2)	Elevation of Water Table (1)
MW-1	88.48	42.53	45.95	42.08	46.40
MW-2	92.44	45.90	46.54	45.64	46.80
MW-3	102.78	57.08	45.70	56.80	45.98
MW-4	100.34	54.48	45.86	54.02	46.32
MW-5	112.02	68.75	43.27	68.20	43.82
MW-6	101.56	56.26	45.30	- (3)	-
MW-7	101.95	56.18	45.77	55.82	46.13

(1) Elevations are relative to a common datum.

(2) Feet below measuring point.

(3) Top could not be removed from well.

IV SITE ASSESSMENT

A. History

The South Montclair Avenue Landfill (New York I.D. No. 152042) is an unlined 20-acre area just north of Middle Country Road (Route 25) near the Village of the Branch in Smithtown, Suffolk County. The Site is located in a mixed residential, industrial, and commercial area (Reference 13 in Section V). The landfill is a former pit from which sand and gravel had been mined for concrete manufacturing by Colonial Sand and Stone, Inc., the previous owner of the Site (Reference 5 in Section V). The current owner, the Town of Smithtown, began landfilling at the Site in 1967 (Reference 2 in Section V). This reportedly continued until 1970, during which time the Site allegedly accepted broken concrete blocks, wooden pallets, plastic wrapping, and typical household waste (Reference 3 in Section V). The concrete manufacturing plant adjacent to the south of the Site had access to the landfill and continued to dump blocks and concrete until 1983, when the Town's construction and demolition debris permit expired (References 2 & 5 in Section V).

From 1970 on, the Town reportedly continued to use the Site only for brush and leaf disposal, a leaf mulching program, and for storage of Highway Department materials (Reference 21 in Section V). However, during NYSDEC's Phase II site reconnaissance in February 1987, recently disposed household rubbish was noticed on the Site, and a Town Highway Department vehicle was observed dumping additional domestic wastes. Furthermore, a northern entrance to the Site was unsecured and had thus apparently encouraged dumping of old furniture and other household items by local residents (Reference 12 in Section V).

A portion of the landfill was being used by the Town for storage of impounded or abandoned auto bodies. There has been no evidence of hazardous waste disposal at the Site.

In 1976, potentially explosive concentrations of methane were monitored by the Suffolk County Department of Environmental Control in waste pipe trap pits of residents on nearby Arthur Drive (Reference 21 in Section V). As a result, the Town entered into an agreement with Suffolk County which resulted in the installation of a methane venting system. This system consisted of placing twenty-two 18-inch diameter perforated corrugated metal pipes around the northern end of the landfill. The Town also installed five 10-foot diameter reinforced concrete drainage rings to a depth of 40 feet in the area immediately east of Arthur Drive. In March 1986, as a result of the detection of potentially explosive concentrations of methane in the basements of homes located on the landfill perimeter, the Town of Smithtown retained Velzy Associates to design a methane migration system to prevent off-site migration of methane gas to surrounding soils. The system was installed within a fenced in area on the east side of the landfill (Reference 23 in Section V). The venting and migration systems appear to have alleviated the methane problem (Reference 12 in Section V).

B. Topography

The South Montclair Avenue Landfill is located in the north-central part of Long Island, in Suffolk County, about 120 feet above mean sea level (Reference 13 in Section V). The landfill occupies approximately 20 acres in a multipurpose zoning area. The topography is relatively flat with the surface covered with grass and weeds (Reference 12, Section V).

The South Montclair Avenue Landfill is located in an area that slopes downward gently (0.8-1.1 percent) from northeast to southwest towards the Northeast Branch of New Mill Pond, located 1.1 miles from the Site. Millers Pond and the Nissequogue River are located approximately 1.5 miles southwest and 1.7 miles west of the Site, respectively. Stony Brook Harbor is located approximately 2.3 miles to the north (Reference 13 & 14, Section 5.2).

C. Air Survey

Ambient air in the working zone was measured continuously for volatile organic compounds (VOCs) vapors using an OVM during drilling activities. Pre-drilling ambient air measurements ranged from 0.0 to 0.6 ppm VOCs. Measurements up to 6.5 ppm VOCs were obtained while the drill rig was running which was attributed to hydrocarbon vapors present in the exhaust.

Measurements of VOCs in split-spoon samples using the OVM ranged from 0.0 to 0.6 ppm. These low VOC concentrations may be attributed to decaying organic matter (i.e., plants, grasses or leaves) present in the samples which are known to emit traces of VOC vapors and hydrocarbons such as ethylene and isoprene. These measurements were not above the range obtained from ambient air.

Additionally, a combustible gas indicator was used to measure methane emissions from the boreholes. Methane concentrations ranged from 0 to 50 percent. The lower explosive limit (LEL) of between 5 and 14 percent was encountered at a depth of 68 feet in MW-3, 15 to 17 feet in MW-2 and 20-22 feet in MW-7.

D. Hydrology

Ground water in the area occurs in the wedge-shaped accumulation of unconsolidated sediments of Pleistocene and Upper Cretaceous age which are approximately 1100 ft. in thickness in the vicinity of the Site (thickness saturated with fresh groundwater). The basal bedrock on which these sediments lie is of Precambrian age and consists of schists and gneisses which outcrop in western Queens County and dip southeast an average of about 65 feet per mile, or slightly less than 1° , to an estimated depth of about 2000 feet in south-central Suffolk County. The surface of the bedrock is approximately 1000 feet below mean sea level in the vicinity of the Site (Reference 1 in Section V).

The Cretaceous fluvial and deltaic deposits rest directly upon the clay-like weathered surface of Precambrian bedrock, and are divided into the Raritan Formation and the overlying Magothy Formation. The Raritan Formation is composed of a lower sand member (Lloyd Sand Aquifer) and a clay member, both of which are widely distributed on Long Island. The top of the Lloyd Sand in Suffolk County ranges from 200-1700 feet below sea level, and its thickness ranges from 150 feet in the northwestern part of Suffolk County to over 300 feet in the southeastern part of the county (Reference 1 in Section V).

The Raritan clay member serves to confine water in the underlying Lloyd aquifer and retards but does not prevent flow between the Lloyd and the overlying Magothy aquifer. The top of the Raritan clay in Suffolk County ranges from 100-1400 feet below sea level trending northwest to southeast, respectively, and its thickness ranges from 100-300 feet, following the same trend (Reference 1 in Section V).

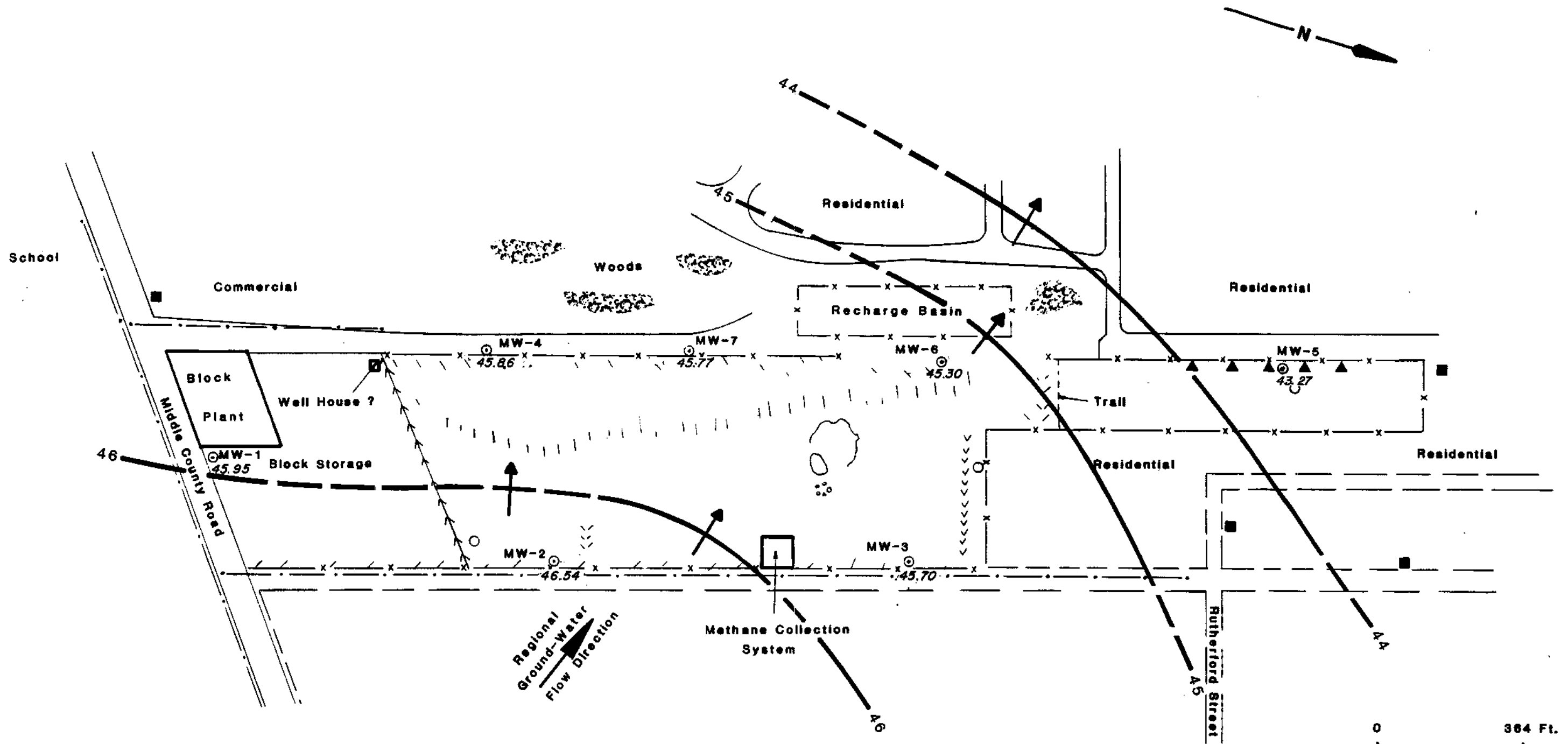
The Magothy Formation consists of a great thickness of alternating fine sands, clays, silts, and some coarse beds of sand and gravel. The top of the formation ranges from 300 feet above to 250 feet below sea level, and ranges in thickness from 330-1000 feet in Suffolk County (Reference 1 in Section V).

The Pleistocene glacial deposits which constitute the Upper Glacial aquifer unconformably overlie the Magothy. A deeply penetrating well in the vicinity of the Site indicates that the glacial deposits extend to a depth of 109 ft. below the National Geodetic Vertical Datum of 1929 (roughly correlative to mean sea level), thus placing the Magothy-Glacial interface at approximately 210-230 ft. below land surface elevation at the Site (Reference 24 in Section V).

Water-level measurements made on November 10, 1988 and again on April 5, 1989 (Table 2) indicate that ground water is at a depth of about 45 feet and flows generally to the northwest (Figure 3).

Sediment samples taken from the screened zones at each of the monitoring wells were analyzed for grain size. All the samples were shown to be composed primarily of sand-sized particles with varying amounts of gravel and only trace amounts of silt. The analytical results are shown in Appendix E.

Slot size for a screen is typically chosen so that approximately 40 percent of the material will be retained. The grain size analyses for the wells show that this size ranged from 0.3 to 0.5 mm. The pre-selected slot size of 0.020 inches (approximately 0.5 mm) was, therefore, an acceptable and appropriate choice for the wells.



- LEGEND -
- MW-1 Monitoring Well Location And Designation
 - 42.64 Elevation Of The Water Table In Feet Relative To A Common Datum
 - 46 Line Of Equal Elevation Of The Water Table In Feet, Dashed Where Inferred
 - Approximate Direction Of Ground-Water Flow

TITLE		
ELEVATION OF THE WATER TABLE NOVEMBER 10, 1988		
PREPARED FOR		
GIBBS AND HILL / NYSDEC		
ROUX Consulting Ground-Water Geologists ROUX ASSOCIATES INC.	SCALE SHOWN	FIGURE
	DATE	
	6/89	3

Hydraulic characteristics of the shallow upper glacial aquifer were determined from slug tests performed on monitoring wells GW-1 through GW-7 on April 12, 1989. Data were interpreted using the analytical method developed by Bouwer and Rice (Reference 20 in Section V). Hydraulic conductivity of the tested aquifer is determined by measuring water level recovery following the instantaneous displacement of water in a well. Slug test data are provided in Appendix F.

Data were collected using a Telog Instruments, Inc. Water Level Recording System[™], consisting of a data recorder (Model 2109-5), and a dedicated pressure transducer with a recording accuracy of 5 pounds per square inch.

Data were analyzed using the aquifer analysis program ISOAQX V2.5 (1988) by Hydralogic, Missoula, MT. The Bouwer-Rice method assumes water-table conditions and corrects for partial penetration and casing storage effects. Solution is semi-graphical, requiring visual fitting of a straight line to semi-log representations of selected segments of the data set.

Results of the testing indicate that the hydraulic conductivity of the shallow upper glacial aquifer at the Site is quite high based on observed rapid water level recovery following slug introduction or withdrawal from the water column. Falling head/rising head paired graphs for each of the seven tested wells included in Appendix F show that complete recovery to pretest (static) water levels occurred within 20 seconds following displacement.

The testing analysis procedure was complicated by several factors. Due to the estimated high conductivity present at the Site, a slug of maximum length and diameter was used in order to maximize the initial water level displacement. For wells GW-1 to GW-5 and

GW-7, the slug was 8 feet long and one inch in diameter. For well GW-6, due to the small volume of water present in the well, a four foot long slug was used. Since recharge following displacement was so rapid, it was not possible to meet the "instantaneous displacement" requirement for valid testing. This was particularly observed for the falling head tests where removing the slug was faster than introducing it into the well. Oscillations in hydraulic head observed following introduction of the slug may indicate the generation of shock waves during the first few seconds of recovery due to the large diameter slug which acts as a piston within the well.

Rising head data from wells GW-1 to GW-5 and GW-7, which were obtained for the 8 foot slug were averaged and plotted semi-graphically with residual head varying logarithmically and time varying linearly in order to smooth out small anomalies present in each individual data set and to create a single representative site curve.

The curve shown on Figure F-1 (Appendix F) reveals a double straight line effect typically observed when the tested well is constructed with a thick gravel pack. The Site wells are 2-inch PVC installed within 10-inch boreholes. The first straight line data segment represents an initial rapid recovery in the well due to drainage or recovery within the gravel pack which typically has a hydraulic conductivity several orders of magnitude higher than the penetrated formation. The second straight line segment reflects recovery within the formation. Measurements recorded following this segment which do not fall on the line reflect the condition that drawdown in the formation is no longer negligible compared with that in the well, thus violating one of the governing assumptions. The data show the two straight line segments clearly but because recovery occurred rapidly, they were drawn using only a few data points. At the end of the second line segment, measurement accuracy

becomes limited. Computer analyses of the data set resulted in the curve and analyses shown on Figures F-2 and F-3 (Appendix F). Data points 5 through 10 were used for the parameter calculations.

In addition to the data set previously described, required analytical parameters of aquifer thickness, casing and screen radius, depth to top of screened interval and screen length were specified. An aquifer thickness of 165 feet was calculated using the estimated depth to the Upper Glacial aquifer/Magothy aquifer interface of 210-230 feet given in the initial Phase II Work Plan by the NYSDEC, and a measured average depth to water of 55 feet. Casing and screen radius were difficult to estimate because it was necessary to incorporate the effective porosity of the annular area. Calculation of these parameters using the method of Bouwer and Rice (Reference 20) are shown on Tables T-1 through T-4 (Appendix F). Uncertainty with the required porosity specifications led to the calculation of a range value for the two radius parameters. Calculated hydraulic conductivity ranged from 48.02 to 147.84 feet/day given the previously described assumptions.

E. Ground-Water Quality

As stated in Section III F, eight ground-water samples were collected from seven wells, MW-1 to MW-7. Sample MW-8 was a blind duplicate of MW-7. A summary of the results is given in Table 3. For evaluation, the analytical results were compared to the standards given in 6 NYCRR 703 (Appendix H).

Four volatile organic compounds (VOCs), chloromethane, 1,2-dichloroethane, benzene, and chlorobenzene, were detected at or near the ground-water standard for each. Of these, only chloromethane, which was detected at 8 ug/l in MW-2, was not detected in the blank. Several tentatively identified compounds (TICs) were also detected.

Two semi-volatile compounds, butylbenzophthalate and 1,4-dichlorobenzene, were detected in wells MW-3, MW-4, MW-5, and MW-8 at concentrations above the standards. Phthalates are common plasticizers in PVC, and the presence of this phthalate is likely due to this cause. Several TICs were also detected and estimated concentrations are provided for them. It should be noted that while seven TICs are reported as present in MW-8, there are none reported for MW-7.

Of the metals analyzed, aluminum, calcium, iron magnesium, potassium, and sodium (all of which are common elements in ground water) showed high concentrations. Arsenic was detected at or above the ground-water standard of 25 ug/L in wells MW-1, MW-4, MW-5, MW-6, MW-7 and MW-8. Cadmium was detected at the ground-water standard of 10 ug/L in all wells except MW-2. Chromium was detected above the ground-water standard of 25 ug/L in all wells; it was also detected in the field blank. Lead concentrations

Table 3. Summary of Ground-Water Data Collected on November 11, 1988, South Montclair Avenue Landfill, Smithtown, New York

Well Number	MW-1	MW-2	MW-3	MW-4	MW-5	MW-6	MW-7	MW-8*
Organic Compounds	(concentrations in ug/l)							
Chloroform	2B	2B	2B	2B	1B	ND	ND	ND
Toluene	2B	2B	2B	1B	4B	ND	ND	ND
Chloromethane	ND	8	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	ND	2B	2B	1B	3B	ND	ND	ND
1,1-Dichloroethane	ND	ND	2B	ND	6B	ND	1B	ND
Trichloroethene	ND	ND	1B	ND	ND	ND	ND	2B
Benzene	ND	ND	2B	3B	ND	3B	5B	7B
Chlorobenzene	ND	ND	2B	12B	ND	10B	ND	15B
Acetone	ND	ND	ND	ND	ND	8	ND	ND
Tetrachloroethene	ND	ND	ND	ND	ND	ND	1B	3B
Carbon Disulfide	ND	ND	ND	ND	ND	ND	ND	2B
1,1-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	3
1,2-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	2
1,2-Dichloropropane	ND	ND	ND	ND	ND	ND	ND	2B
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	1B
Ethyl benzene	ND	ND	ND	ND	ND	ND	ND	2B
Styrene	ND	ND	ND	ND	ND	ND	ND	2B
<u>Tentatively Identified Compounds** (concentrations in ug/l)</u>								
Dichlorodifluoromethane	26B	110B	54B	ND	16B	19B	ND	78B
Unknown alkene	6	6	6	30	7	14	18	17
Unknown alkene	18	20	19	10	17	12	19	ND
1,2-Diethoxyethane	ND	ND	ND	ND	ND	ND	ND	11

* Duplicate MW-7
 **Estimated Concentration
 B Detected in field blank

Table 3. Summary of Ground-Water Data Collected on November 11, 1988, South Montclair Avenue Landfill, Smithtown, New York

Well Number	MW-1	MW-2	MW-3	MW-4	MW-5	MW-6	MW-7	MW-8*
Semi-volatile Organic Compounds	(concentrations in ug/l)							
Tentatively Identified Compounds**	(concentrations in ug/l)							
Butylbenzophthalate	ND	79	75	77	ND	ND	ND	ND
1,4-Dichlorobenzene	ND	ND	ND	ND	6	ND	ND	6
Unknown aliphatic hydrocarbon	36	38	100	60	ND	ND	ND	ND
Unknown aliphatic hydrocarbon	46	48	100	52	ND	ND	ND	ND
Tetracosane	64	ND	ND	ND	ND	ND	ND	ND
Unknown aliphatic hydrocarbon	52	48	88	70	ND	ND	ND	ND
Pentatriacontane	44	32	78	ND	ND	ND	ND	ND
Hexatriacontane	32	ND	58	40	ND	ND	ND	ND
Unknown aliphatic hydrocarbon	20	38	38	26	ND	ND	ND	ND
Tetraeracontane	10	ND	ND	ND	ND	ND	ND	ND
Unknown aliphatic hydrocarbon	ND	24	22	16	ND	ND	ND	ND
Unknown aliphatic hydrocarbon	ND	14	ND	ND	ND	ND	ND	ND
Pentacosane	ND	8	ND	ND	ND	ND	ND	ND
Octacosane	ND	30	44	ND	ND	ND	ND	ND
Phenol	ND	ND	ND	ND	28	32	ND	32
Benzamide	ND	ND	ND	ND	ND	10	ND	10
2(3H) Benzothiazolone	ND	ND	ND	10	44	34	ND	38
Benzenesulfonamide	ND	ND	ND	ND	10	10	ND	8
3-Pyridinemethanol	ND	ND	ND	ND	ND	ND	ND	16
Nonacosane	ND	ND	62	ND	ND	ND	ND	ND
Bicyclo (2.2.1) heptan 2-one	ND	ND	10	ND	ND	ND	ND	ND
9-Octyl-heptadecane	ND	ND	ND	72	ND	ND	ND	ND
Unknown alcohol	ND	ND	ND	ND	ND	10	ND	ND
Unknown	ND	ND	52	28	ND	10	ND	12
Unknown	ND	ND	14	54	ND	14	ND	16

* Duplicate MW-7

**Estimated Concentration

B Detected in field blank

Table 3. Summary of Ground-Water Data Collected on November 11, 1988, South Montclair Avenue Landfill, Smithtown, New York

Well Number	MW-1	MW-2	MW-3	MW-4	MW-5	MW-6	MW-7	MW-8*
Metals (concentrations in ug/l)								
Aluminum	66800	3800	2500	19900	18100	6900	28900	8300
Arsenic	45	ND	ND	36	25	31	26	29
Barium	ND	ND	270	ND	ND	220	240	310
Beryllium	8	7	ND	ND	8	ND	ND	ND
Cadmium	10	ND	10	10	10	10	10	10
Calcium	72700B	234000B	67200B	101700B	10000B	69900B	112000B	73100B
Chromium	150B	60B	70B	110B	90B	80B	110B	60B
Cobalt	140	120	120	70	50	100	50	80
Copper	130	30	40	130	160	70	70	70
Iron	48400	30300	25900	46400	43800	34100	44000	33800
Lead	77	9	21	48	32	33	29	31
Magnesium	17200	5200	6500	36400	15500	3650	32400	36100
Manganese	4200	7700	12500	950	880	3700	770	3900
Nickel	130	110	130	130	140	170	100	120
Potassium	29100	7500	6800	38800	84900	35300	31000	600
Silver	30	10	ND	40	ND	ND	10	20
Sodium	40900	16300	77700	72800	25300	93100	57900	96700
Zinc	210	30	40	90	90	80	90	70
Vanadium	ND	ND	ND	80	50	ND	ND	ND
Pesticide Organic Compounds (concentrations in ug/l)								
Heptachlor	0.06	ND	0.02	ND	ND	ND	ND	ND
gamma -BHC (Lindane)	ND	ND	ND	0.04	0.06	ND	ND	ND
alpha - BHC	ND	ND	ND	ND	ND	ND	ND	ND

* Duplicate MW-7

**Estimated Concentration

B Detected in field blank

exceeded the standard in all wells except MW-2 and MW-3; it was present in MW-2 and MW-3 at concentrations below the standard.

The pesticides heptachlor and lindane were detected in MW-1, MW-3, MW-4, and MW-5 at very low concentrations (0.02-0.06 ug/l).

In reviewing the ground-water quality data, it is initially apparent that the water quality in the upgradient wells, MW-1, MW-2, and MW-3 is not significantly different from the water quality in the four downgradient wells. The discrepancies in the data for the duplicate samples (MW-7 and MW-8), the obvious contamination of the field blank, and the analytical problems outlined in the data validator's report (Appendix E), however, indicate that the data are not of sufficiently high quality to draw such a conclusion. The single round of ground-water quality data should be augmented by a second round of ground-water sampling. The data from the two rounds can then be examined and conclusions be made concerning whether or not past activities at the Site have impacted ground water in the area.

F. References

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V FINAL APPLICATION OF HAZARD RANKING SYSTEM

A. Introduction

The Hazard Ranking System has been applied incorporating the new data obtained during the Phase II Investigation. The final scores calculated are:

$$S_M = 1.46$$

$$S_{gw} = 2.53$$

$$S_{sw} = 0$$

$$S_a = 0$$

$$S_{FE} = \text{Not applicable}$$

$$S_{DC} = 0$$

The purpose of the HRS scoring is to rank the Site in comparison to other New York State Superfund sites, on a list of priorities, and/or to declassify the Site (i.e. delist).

Facility name:	South Montclair Avenue Landfill NYSDEC ID 152042		
Location:	So. Montclair Avenue, Smithtown, New York		
EPA Region:	II		
Person(s) in charge of the facility:	_____		
Name of Reviewer:	Ellen Beacon	Date:	2/1990
General description of the facility:	(For example: landfill, surface impoundment, pile, container; types of hazardous substances; location of the facility; contamination route of major concern; types of information needed for rating; agency action, etc.)		
	Landfill covers 20 acres, operated from 1967-1970		
	Accepted household waste, blocks, pallets, plastic		
	wrappings. Currently used for brush and leaf disposal.		
	Methane emissions problem.		

Scores:	$S_M = 1.46$	$(S_{pw} = 2.53$	$S_{sw} = 0$ $S_B = 0)$
	$S_{FE} =$ Not Applicable		
	$S_{DC} = 0$		

FIGURE 1
HRS COVER SHEET

Ground Water Route Work Sheet						
Rating Factor	Assigned Value (Circle One)	Multi-plier	Score	Max. Score	Ref. (Section)	
1 Observed Release	0 45	1	0	45	3.1	
If observed release is given a score of 45, proceed to line 4 . If observed release is given a score of 0, proceed to line 2 .						
2 Route Characteristics					3.2	
Depth to Aquifer of Concern	0 1 2 3	2	4	8		
Net Precipitation	0 1 2 3	1	3	3		
Permeability of the Unsaturated Zone	0 1 2 3	1	3	3		
Physical State	0 1 2 3	1	1	3		
Total Route Characteristics Score			11	15		
3 Containment	0 1 2 3	1	3	3	3.3	
4 Waste Characteristics					3.4	
Toxicity/Persistence	0 3 6 9 12 15 18	1	0	18		
Hazardous Waste Quantity	0 1 2 3 4 5 6 7 8	1	1	8		
Total Waste Characteristics Score			1	26		
5 Targets					3.5	
Ground Water Use	0 1 2 3	3	9	9		
Distance to Nearest Well/Population Served	0 4 8 10 12 16 18 20 24 30 32 35 40	1	35	40		
Total Targets Score			44	49		
6 If line 1 is 45, multiply 1 x 4 x 5 If line 1 is 0, multiply 2 x 3 x 4 x 5			1454	57,330		
7 Divide line 6 by 57,330 and multiply by 100			$S_{gw} = 2.53$			

FIGURE 2
GROUND WATER ROUTE WORK SHEET

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

FIGURE 7
SURFACE WATER ROUTE WORK SHEET

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

FIGURE 9
AIR ROUTE WORK SHEET

	s	s ²
Groundwater Route Score (S _{gw})	2.53	6.40
Surface Water Route Score (S _{sw})	0	0
Air Route Score (S _a)	0	0
$S_{gw}^2 + S_{sw}^2 + S_a^2$		6.40
$\sqrt{S_{gw}^2 + S_{sw}^2 + S_a^2}$		2.53
$\sqrt{S_{gw}^2 + S_{sw}^2 + S_a^2} / 1.73 = S_M$		1.46

FIGURE 10
WORKSHEET FOR COMPUTING S_M

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

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

FIGURE 11
FIRE AND EXPLOSION WORK SHEET

Direct Contact Work Sheet						
Rating Factor	Assigned Value (Circle One)	Multi-plier	Score	Max. Score	Ref. (Section)	
1 Observed Incident	0 1 2 3 4 5 6	45	1	0	45	8.1
If line 1 is 45, proceed to line 4 If line 1 is 0, proceed to line 2						
2 Accessibility	0 1 2 3 4 5 6		1	3	3	8.2
3 Containment	0 1 2 3 4 5 6	15	1	0	15	8.3
4 Waste Characteristics Toxicity	0 1 2 3 4 5 6		5	0	15	8.4
5 Targets						8.5
Population Within a 1-Mile Radius	0 1 2 3 4 5 6		4	16	20	
Distance to a Critical Habitat	0 1 2 3 4 5 6		4	0	12	
Total Targets Score				16	32	
6 If line 1 is 45, multiply 1 x 4 x 5 If line 1 is 0, multiply 2 x 3 x 4 x 5				0	21,000	
7 Divide line 6 by 21,000 and multiply by 100				SDC = 0		

FIGURE 12
DIRECT CONTACT WORK SHEET

C. Documentation Records for Hazard Ranking System

INSTRUCTIONS: The purpose of these records is to provide a convenient way to prepare an auditable record of the data and documentation used to apply the Hazard Ranking System to a given facility. As briefly as possible, summarize the information you used to assign the score for each factor (e.g., "Waste quantity = 4,230 drums plus 800 cubic yards of sludges"). The source of information should be provided for each entry and should be a bibliographic-type reference that will make the document used for a given data point easier to find. Include the location of the document and consider appending a copy of the relevant page(s) for ease in review.

FACILITY NAME: South Montclair Avenue Landfill

LOCATION: South Montclair Avenue, Smithtown, New York

DATE SCORED: February, 1990

PERSON SCORING: Ellen Beacon

PRIMARY SOURCE(S) OF INFORMATION: Roux Associates, Inc.-

Phase II Work Plan Update, Woodward-Clyde Consultants,
Inc. - Phase I Report

FACTORS NOT SCORED DUE TO INSUFFICIENT INFORMATION:

COMMENTS OR QUALIFICATIONS:

GROUND WATER ROUTE

1. OBSERVED RELEASE

Contaminants detected (5 maximum):

None Assigned value = 0

Rationale for attributing the contaminants to the facility:

N/A

2. ROUTE CHARACTERISTICS

Depth to Aquifer of Concern

Name/description of aquifer(s) of concern:

Upper Glacial and Magothy aquifers. The Upper Glacial and the Magothy aquifers are hydraulically connected. (Reference 1).

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

42 feet (Geologic Logs, Appendix C)

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

40 feet (Reference 6)

Assigned value = 2

Net Precipitation

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

45 inches average annual (HRS User's Manual).

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

29 inches average annual (HRS User's Manual).

Net precipitation (subtract the above figures):

16 inches (based upon above numbers). Assigned value = 3.

Permeability of Unsaturated Zone

Soil type in unsaturated zone:

Sand and gravel (Geologic Logs, Appendix C).

Permeability associated with soil type:

Moderate to high (HRS Users Manual).

Greater than 10^3 cm/sec.

Assigned value = 3

Physical State

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

Solid

(Reference 2 and 3)

Assigned value = 1

3. CONTAINMENT

Containment

Method(s) of waste or leachate containment evaluated:

Landfill, no liner (Reference 4)

Method with highest score:

Landfill, no liner. Assigned value = 3.

4. WASTE CHARACTERISTICS

Toxicity and Persistence

Compound(s) evaluated:

None. Assigned value = 0.

The Phase II investigation data was inconclusive in determining if hazardous substances were released from the site.

Compound with highest score:

N/A

Hazardous Waste Quantity

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

Unknown. There is no documentation of hazardous waste disposal at the site. The analytical data collected for the Phase II investigation was inconclusive in determining if a release of hazardous substances has occurred.

Assigned value = 1.

Basis of estimating and/or computing waste quantity:

N/A

5. TARGETS

Ground Water Use

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

The Upper Glacial and Magothy aquifers are designated sole source aquifers (Reference 7). Domestic and commercial/industrial uses.

Assigned value = 3

Distance to Nearest Well

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

SCWA well: approximately 4500 ft. southwest of site (Reference 8).

Distance to above well or buildings:

4500 feet (Reference 8). Assigned value = 3

Population Served by Ground-Water Wells Within a 3-Mile Radius

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

	Population
Suffolk County Water Authority	900,000
St. James Water District	12,150
Smithtown	18,000
Kings Park Psychiatric Center	3,100
Peacock Valley	35
Park Lake Rest Home	46
Greis Mobile Park	70
Lake Hurst Adult Home	57

(Reference 9 & 10) Assigned value = 5 Matrix Value = 35

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

Nursery stock 700 ft. south; 40 acre vegetable farm is SW about 1.5 miles; within 1 mile to the north with unknown acreage.
27 people (Reference 11).

Total population served by ground water within a 3-mile radius:
961,385
(Reference 9 & 10)

SURFACE WATER ROUTE

1. OBSERVED RELEASE

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

None Assigned value = 0

Rationale for attributing the contaminants to the facility:

N/A

2. ROUTE CHARACTERISTICS

Facility Slope and Intervening Terrain

Average slope of facility in percent:

Less than 3% (Reference 12) Assigned value = 0

Name/description of nearest downslope surface water:

North Branch located approximately 1.1 miles SW of the site (Reference 13)
Assigned value = 1

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

Less than 3% (Reference 13)
Assigned value = 0

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

No (Reference 12 & 13)

Is the facility completely surrounded by areas of higher elevation?

No (Reference 13)

1-Year, 24-Hour Rainfall in Inches

2.7 inches (HRS User's Manual) Assigned value = 2

Distance to Nearest Downslope Surface Water

1.1 miles SW of site. (Reference 13) Assigned value = 1

Physical State of Waste

Solid (Reference 4, 5, 6) Assigned value = 1

3. CONTAINMENT

Method(s) of waste or leachate containment evaluated:

Scored as Landfill - (HRS User's Manual).

The site appears flat (slope < 3%) and therefore probably precludes runoff (Reference 12).

Assigned value = 0

Method with highest score:

N/A

4. WASTE CHARACTERISTICS

Toxicity and Persistence

Compound(s) evaluated:

None. There is no documentation of hazardous waste disposal at the Site.

Assigned value = 0

Compound with highest score:

N/A

Hazardous Waste Quantity

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

Unknown

Assigned value = 1

See Ground Water Route.

Basis of estimating and/or computing waste quantity:

N/A

5. TARGETS

Surface Water Use

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

Nissequogue River, New Mill Pond, Miller's Pond, Gibbs Pond, Spectacle Pond, Lake Ronkonoma and Stony Brook Harbor. Use - recreation (Reference 13, 14, 15).

Assigned value = 2

Is there tidal influence?

No (Reference 13)

Distance to a Sensitive Environment

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

1.7 miles (Reference 12) Nissequoque River Tidal Flats
Assigned value = 1

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

1.1 miles (Reference 12) Northeast Branch of New Mill Pond
Assigned value = 0

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

N/A

(Reference 16)
Assigned value = 0

Population Served by Surface Water

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

N/A (Reference 15)
Assigned value = 0

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

N/A

Total population served:

N/A

Name/description of nearest of above water bodies:

N/A

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

N/A

AIR ROUTE

1. OBSERVED RELEASE

Contaminants detected:

None

Assigned value = 0

(November 1988 Field Investigation, Geologic Logs, Appendix C)

Date and location of detection of contaminants:

N/A

Methods used to detect the contaminants:

N/A

Rationale for attributing the contaminants to the site:

N/A

2. WASTE CHARACTERISTICS

Reactivity and Incompatibility

Most reactive compound: N/A

Most incompatible pair of compounds: N/A

Toxicity

Most toxic compound:

N/A

Hazardous Waste Quantity

Total quantity of hazardous waste: N/A

Basis of estimating and/or computing waste quantity: N/A

3. TARGETS

Population Within 4-Mile Radius

Circle radius used, give population, and indicate how determined: N/A

Distance to a Sensitive Environment

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

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

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

Land Use

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

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

Distance to residential area, if 2 miles or less: N/A

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

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

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

FIRE AND EXPLOSION

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

1. CONTAINMENT

Hazardous substances present:

Type of containment, if applicable:

N/A

2. WASTE CHARACTERISTICS

Direct Evidence

Type of instrument and measurements:

Ignitability

Compound used:

N/A

Reactivity

Incompatibility

Incompatible pair of compounds: N/A

Hazardous Waste Quantity

Total quantity of hazardous substances at the facility: N/A

Basis of estimating and/or computing waste quantity: N/A

4. TARGETS

Distance to Nearest Population

N/A

Distance to Nearest Building

N/A

Distance to Sensitive Environment

Distance to wetlands: N/A

Distance to critical habitat: N/A

Land Use

Distance to commercial/industrial area, if 1 miles or less:

N/A

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

N/A

Distance to residential area, if 2 miles or less:

N/A

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

N/A

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

N/A

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

N/A

Population Within 2-Mile Radius

N/A

Buildings Within 2-Mile Radius

N/A

DIRECT CONTACT

1. OBSERVED INCIDENT

Date, location, and pertinent details of incident:

N/A

Assigned value = 0

2. ACCESSIBILITY

Describe type of barrier(s):

Chain-link fence around most of the property, excluding the southern end of landfill; barriers do not completely surround facility.

Assigned value = 3 (Reference 12)

3 CONTAINMENT

Type of Containment:

N/A

Assigned value = 0

4. WASTE CHARACTERISTICS

Toxicity

Compounds evaluated:

None

Assigned value = 0

Compound with highest score:

N/A

5. TARGETS

Population within one-mile radius

5405 (Reference 17)

Assigned value = 4

Distance to critical habitat (of endangered species)

N/A

Assigned value = 0

(Reference 16)

D. HRS Documentation References

- (1) Jensen, H.M., and Soren, J. 1974. Hydrogeology of Suffolk County, Long Island, New York. U.S.G.S. Hydrogeologic Investigations Atlas HA-501.
(Location: Roux Associates, Inc. files).
- (2) NYSDEC Construction Operation Permit No. 10-82-1001 3032 (Attached).
- (3) SCDHS, 1979. Letter to J. Dowling, Smithtown Highway Department, from L. Maloney, 10/17/79 (Attached).
- (4) Mooney, F.J. 1984. Interview record with Woodward-Clyde Consultants 12/19/84 (Attached).
- (5) Dowling, J. 1985. Telephone conversation with Woodward-Clyde Consultants 1/11/85 (Attached).
- (6) NYSDEC, 1985. Bureau of Toxic Substance Assessment Hazardous Waste Site Investigation Report. (Appendix A - Reference A-5).
- (7) USEPA, 1990. Fact Sheet Sole-Source Aquifers in Region II (Attached).
- (8) Dassler, R., 1990. Suffolk County Water Authority, Telephone Conversation Record (Attached).

- (9) NYS Department of Health, 1982. New York State Atlas of Community Water System Sources (Attached).
- (10) Dassler, R., 1990a. Suffolk County Water Authority, Telephone Conversation Record (Attached).
- (11) NYS Department of Agriculture and Markets, 1985. (Agricultural District Maps, Division of Rural Affairs) (Attached).
- (12) Roux Associates, Inc., 1988. Phase II Work Plan Update - Site Reconnaissance. (Map Attached)
- (13) U.S.G.S., 1969. Central Islip, New York 1:24000 Topographic Quadrangle.
(Location: Roux Associates, Inc. files) (Copy Attached).
- (14) U.S.G.S., 1979. Saint James and Patchoque, New York 1:24000 Topographic Quadrangles. (Location: Roux Associates, Inc. files).
- (15) Verbar, R., 1990. LI Regional Planning Board. Telephone Conversation Record (Attached).
- (16) NYS Department of Environmental Conservation, 1990. Information Services (Attached).

- (17) Donnelley Marketing, 1984. American Profile Information Retrieval System, based on 1980 Census Data, Stamford, Ct. (Attached).
- (18) U.S. EPA., 1982. Uncontrolled Hazardous Waste Site Ranking System, A User's Manual. (Location: Roux Associates, Inc. files).
- (19) Woodward Clyde Consultants, Inc., 1985. Phase I Report. (Location: Roux Associates, Inc. files).
- (20) Bouwer, H. and R.C. Rice, 1976. A Slug Test for Determining Hydraulic Conductivity of Unconfined Aquifers with Completely or Partially Penetrating Wells. Water Resources Research 12. (Location: Roux Associates, Inc. files).
- (21) Forte, A.J., Town of Smithtown letter to P. Gianelli, Office of the District Attorney, Suffolk County, March 25, 1977 (Appendix A - Reference A-1).
- (22) Maloney, J., 1978. SCDHS letter to J. Toomey, Town of Smithtown, February 23, 1978. (Appendix A - Reference A-2).
- (23) Sanchez, A., 1986. Velzy Associates letter to J. Maloney, SCDHS March 14, 1986. (Appendix A - Reference A-3).
- (24) NYSDEC Preliminary Work Plan, 1988. Roux Associates, Inc. Phase II Work Plan Update. (Location Roux Associates files).

- (25) AeroGraphics, 1988. Aerial Photographs (Location: Roux Associates, Inc. files).

- (26) Tramontano, R., 1986. Letter to Charles Goddard of NYSDEC. (Appendix A - Reference A-4).

- (27) Chen, M., 1988. Letter to Neal Spevack of Smithtown Concrete Products Corporation (Appendix A - Reference A-6).

- (28) NYSDEC, 1987. Inactive Hazardous Waste Disposal Report.

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

PERMIT

Under the Environmental Conservation Law, Article 27, Title 7, Part 360

FACILITY NO.

52-D-13

EXPIRATION DATE

12/13/83

 CONSTRUCTION OPERATION INITIAL ISSUE RENEWAL REISSUANCE MODIFICATION

PERMIT NO.

10-82-1001

3032

ISSUED TO

Town of Smithtown

ADDRESS OF PERMITEE

99 West Main Street, Smithtown, NY 11787

TELEPHONE NO.

516-360-7512

LOCATION OF PROJECT

Town of Smithtown

County

Suffolk

Environmental Conservation Regional Office

Region I

DESCRIPTION OF PROJECT

Montclair Brush Disposal Site

ON-SITE SUPERVISOR

Donald English

GENERAL CONDITIONS

- The permittee shall file in the office of the Environmental Conservation Region specified above, a notice on intention to commence work at least 48 hours in advance of the time of commencement and shall also notify said office promptly in writing of the completion of the work.
- The permitted work shall be subject to inspection by an authorized representative of the Department of Environmental Conservation who may order the work suspended if the public interest so requires.
- As a condition of the issuance of this permit, the applicant has accepted expressly, by the execution of the application, the full legal responsibility for all damages, direct or indirect, of whatever nature, and for any and all claims, damages and costs of every name and description resulting from the said project.
- All work carried out under this permit shall conform to the approved plans and specifications. Any amendments must be approved by the Department of Environmental Conservation prior to their implementation.
- The permittee is responsible for obtaining any other permits, approvals, easements and rights-of-way which may be required for this project.
- By acceptance of this permit, the permittee agrees that the permit is contingent upon strict compliance with Part 360 and the special conditions. Any variances granted by the Department of Environmental Conservation to Part 360 must be in writing and attached hereto.

SPECIAL CONDITIONS

- Wastes to be accepted shall be limited to leaves, branches, garden trimmings, stumps, and trees, and demolition debris consisting of concrete, brick, stone, asphalt, wood, and other inert material.
- Wastes not to be accepted shall include, but not be limited to, putrescible household waste (garbage), commercial waste, industrial and hazardous waste, cardboard, paper, plastic waste, or any other wastes which might in any way affect groundwater quality. Any materials found to be unsuitable shall be removed immediately upon request.
- All landfilling activities shall be confined to the 1.0[±] acre fill area as delineated on the Montclair Brush Disposal Site Plan, dated 11/27/82.
- Deposited material shall be compacted daily by rubber-tired front end loaders or bulldozers. Daily cover shall consist of a minimum of six inches of sand or sandy loam.
- Access to and use of the facility shall be controlled by fencing, gates, signs, or other suitable means.
- Final closure shall include a minimum cover of 18 inches of sand or sandy loam, topped by a minimum of six inches of native topsoil. The final elevation of the fill shall not exceed existing grade. The site shall be graded to eliminate ponding of surface water, and shall be seeded.

Reference 3
COUNTY OF SUFFOLK



DEPARTMENT OF HEALTH SERVICES

October 17, 1979

Smithtown Highway Department
758 Smithtown By-Pass
Smithtown, N. Y. 11787

Att: James Dowling, Supt. of Highways

Re: Montclair Ave. Solid Waste Disposal Site

Gentlemen:

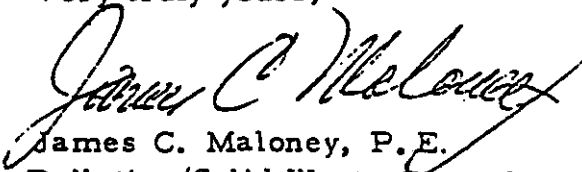
On October 2, 1979, this Department received a complaint concerning the illegal dumping of garbage and rubbish at the above referenced site. In our conversation on that date, you indicated that Highway Department staff would be instructed to lock the entrance gate at the end of the day.

Mr. Paul Lappano of the New York State Department of Environmental Conservation has indicated that this site can be used as a composting area for leaves only. The Town will not be permitted to bury leaves, tree limbs, or the like at the site, but only store them there for composting purposes.

The Suffolk County Department of Health Services requests that signs be posted around this facility, discouraging dumping under penalty of law so as to prevent home owners mis-using this facility and eliminate the potential for complaint by area residents. I sympathize with you in having to deal with a very difficult problem.

This office appreciates the cooperation you have extended in this matter.

Very truly yours,


James C. Maloney, P.E.
Air Pollution/Solid Waste Control

JCM:ets

cc: Paul Lappano, NYS DEC
William C. Roberts, P.E.
H. W. Davids, P.E.
Duane B. Rhodes

WOODWARD-CLYDE CONSULTANTS
WASTE SITE INSPECTION REPORT

Name of Site: South Montclair Ave, L.F. County: Suffolk
Address: _____

Inspector: James T. Moore Time and Date of Inspection: 12-19-84
Weather Conditions: moderate to heavy rain, & overcast

I. SITE DESCRIPTION

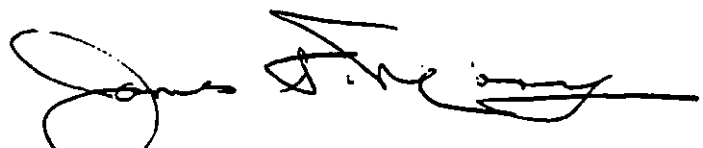
1. Type of Site: _____ 2. Buildings on Site? yes / no
If yes, describe:


- A Surface Impoundment
- B Piles
- C Drums Above Ground
- D Tank Above Ground
- E Tank Below Ground
- F Landfill
- G Landfarm
- H Open Dump
- I Other

3. Area of Site:
20 acres

General Description:

* An old sand & gravel pit that was converted to a municipal dump


Inspector


Interviewee

II. INTERVIEW RECORD

1. Name(s): FRANCIS J. MOONEY

2. Position(s): TOWN ENGINEER

3. Telephone Number: (516) 360-7550

4. Name of Current Owner of Site: TOWN OF SMITHTOWN

5. Address of Current Owner of Site: 99 W MAIN ST. SMITHTOWN, N.Y. 1176

6. Time Period Site Was Used for Hazardous Waste Disposal:

1965 To 1971

Is site Active Inactive at present? INACTIVE

Past Sampling Activities: Air Ground Water None
Surface Water Soil

Remedial Action: Proposed Under Design N.A.
In Progress Completed

Status of Legal Actions: State Federal NONE

Permits Issued: Federal Local Government SPDES
Solid Waste Mined Land Wetlands Other ?

II. INTERVIEW RECORD (continued)

Waste Characteristics:

TYPICAL HOUSE HOLD WASTE.

- Paper, bags, leaves, stumps, limbs, and plastic items. Most of the site is filled in, graded, and covered with grass or weeds except for the southern portion.

Other Information: (site history, operator information, generator/transporter information, past response activities, legal actions, hazardous incidents, other information).

1. SITE ORIGINALLY SOURCE OF SAND & GRAVEL FOR CONCRETE MANUFACTURE.
- 2) SITE PRESENTLY USED BY SMITHTOWN HIGHWAY DEPT. SOUTHERN END OF SITE IS A BRUSH & LEAVE DUMP.
- 3) PART OF SITE USED FOR RECREATION PURPOSES (2 soccer fields)
- 4) Has wells in subsurface strata to bleed off methane

III SURFACE WATER

1. Is there identifiable leachate? **yes/no**
If yes, describe:

2. Is site completely surrounded by higher ground:
yes/no/uncertain from field observations

3. Appropriate distance to nearest observed downgradient body of
Surface water: _____
Description: _____
Use: _____

4. Average slope of site: **3%** 5-8%
3-5% >8%

5. On site ponding? **yes/no**
If yes, describe: *At the base of inspection, there is a small pond of water. This is a small pond and it is not a large pond. It is a small pond and it is not a large pond.*

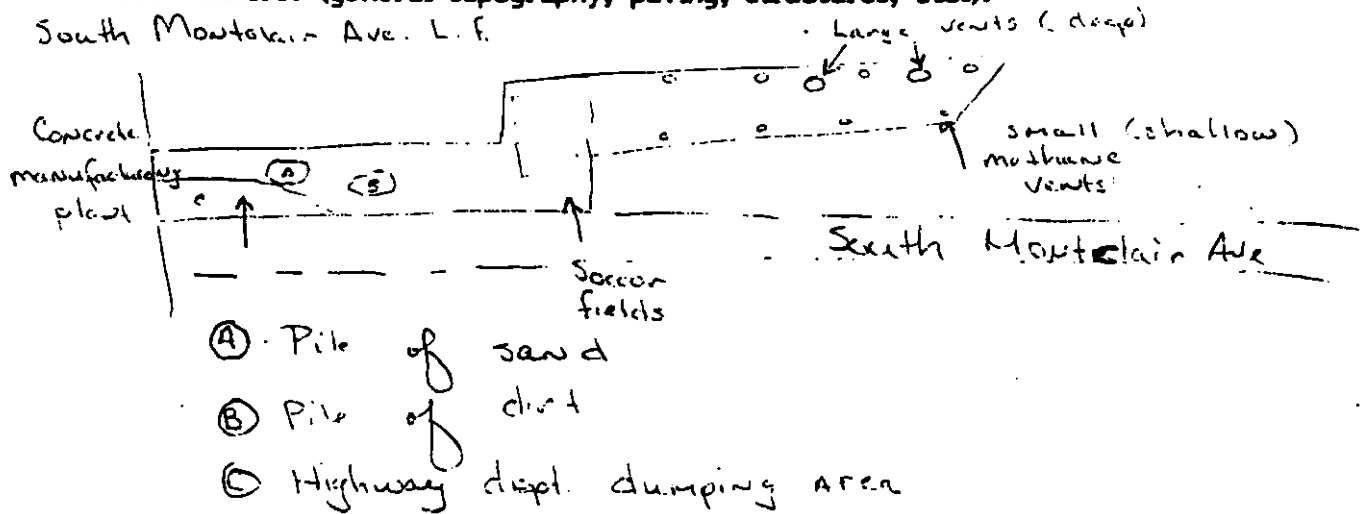
6. Average slope of terrain between site and nearest observed down slope surface
water body: **3%** 5-8%
3-5% 8%

7. In an area of flood plain? **yes/no**

III SURFACE WATER (continued)

8. Damage to floral fauna from surface water? **yes/no**
 If yes, describe:

9. Surface Features (general topography, paving, structures, etc.):



- The area is smooth and even with the surface covered with grass and weeds. There are no structures. There is no paved road and the boundary of the south side of the landfill is not fenced in. The southern boundary just happens to be the back of a cement brick plant.

IV. GROUND WATER

1. On site wells? yes/none observed
If yes:

number _____

location _____

description _____

2. Observations concerning ground water *NONE*

3. Observations concerning stratigraphy *NONE*

4. Damage to flora/fauna from ground water? yes/no
If yes, describe.

V. AIR

↓ Evidence of air contaminants emitted from site: *N.A.*

2. Rationale for attributing the contaminants to the site: *N.A.*

VI. DEMOGRAPHY/LAND USE

- 1. Distance to nearest observed off-site building across the road < 1000 ft
- 2. Distance to nearest observed residence 100 FT.
- 3. Estimated number of households within a radius of 1/4 mile _____
- 4. Distance to nearest observed commercial/industrial land use 500 FT
Description: CONCRETE BLOCK MANUFACTURE
- 5. Distance to nearest observed agricultural lands _____
Description: _____

6. Observed historic landmark sites? yes/no
If yes, describe, give approximate distance:

7. Observed park/open space area? yes/no
If yes, describe, give approximate distance:

8. Observed wetlands or low-lying area? yes/no
If yes, describe, give approximate distance and area in acres:

9. Observed critical habitat or wildlife refuge? yes/no
If yes, describe, give approximate distance:

10. General description of use of adjacent lands. to the north is a residential area with a large house and a garage. to the east is a residential area with a house and a garage. to the south is a residential area with a house and a garage. to the west is a residential area with a house and a garage.

VII. WASTE CHARACTERISTICS

1. Physical State of Waste

Comments

- solid, stable
- solid, unstable
- powder, fines
- sludge
- slurry
- liquid
- gas
- other

2. Estimated quantity of waste: *300,000 TONS DURING TOTAL LIFE OF SITE*

3. Estimated quantity of waste that appears fully contained: *100 %*

4. Odors? yes/no
If yes, describe:

5. Observations concerning suspected waste materials

VIII. WASTE CONTAINMENT

1. Observed soil/rock material underlying site: SAND & GRAVEL

natural/artificial/unknown

permeability: low/moderate/high

2. Diversion system? yes/no

Description/condition:

3. Leachate collection system? yes/no

Description/condition:

4. Is there diking? yes/no? If yes, is it sound/unsound?

5. If diking exists, does it have adequate freeboard? yes/no NA

6. If site has containers (i.e., 55-gallon drums): are they sealed and in sound condition or leaking? NA

7. If waste is in piles, NA

a. Are piles covered/uncovered?

b. Is waste stabilized/unstabilized?

8. If waste is in a landfill:

a. Is there potential for ponding on surface of landfill? Yes

b. Is there potential for erosion? No

c. Is there refuse visible at surface? No

d. If covered, is the cover seeded/vegetational cover? No

VIII WASTE CONTAINMENT (continued)

9. Damage to flora/fauna from direct contact? **yes/no**

If yes, describe:

10. Security

- 24-hour surveillance

- no barriers

- security guard

- controlled entry

- complete barrier ?

- signs posted

- incomplete barrier

11. Comments concerning waste containment:

This site has minimized the use of the old gravel and garbage, wanted to get it use of another. It is as use the gravel as a barrier. The site has been in operation for 6 years. The gravel has appeared as a use of the gravel. The site is well for safety reasons, made recreational area and so that may help.

IX. SITE INVESTIGATION FEASIBILITY

1. Accessible to vehicles? yes / no
If no, why:

2. Accessible to drill rig? yes / no
If no, why:

3. Nearest drilling water source: HYDRANT ON STREET

4. Accessible to backhoe: yes / no
If no, why:

5. Geophysical Surveys:

Accessible: yes / no

Overhead interference no

Surface interference some sources on the site might pose problems

Subsurface interference possible but not likely

6. Accessibility of adjacent off-site lands: if it would be easy to get to the area

7. Comments

X. SKETCHES, PHOTOGRAPHS

WOODWARD-CLYDE CONSULTANTS
RECORD OF TELEPHONE CONVERSATION

Date: 1-11-85 Time: 1:10 Project No. 82C45483

Re: Operations of plant near S. Montclair landfill

Call Placed By: James Dowling of: Superintendent, Dept of High.

To: James T. Moore of: WCCI; Staff Geologist

Notes: Operations of Smithtown Concrete plant. The plant has been dump wastes for approximately 25 years. The waste material consists of broken blocks, pallets, and plastic wrapping. The Smithtown Concrete plant has AN access to landfill, which is not Accessible to the public.

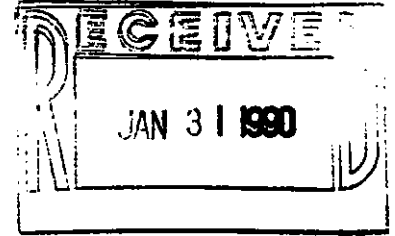
The town is recycling ^{MOST} some of the concrete blocks and the plant stopped dumping BLOCKS AND CONCRETE DIRECTLY INTO THE LANDFILL 1 YEAR AGO.

ONLY WOOD PALLETS AND PLASTIC SHEET COVERING WENT INTO THE LANDFILL

Previous owner of site Colonial Sand and Stone Inc 25 Smithtown N.Y. & then the town of Smithtown

James T. Moore

Signed: James Dowling



FACT SHEET

SOLE SOURCE AQUIFERS IN REGION II

<u>Sole Source Aquifer Name</u>	<u>State</u>	<u>Citation</u>	<u>Publication Date</u>
Brooklyn/Queens Aquifer System	NY	49 FR 2950	January 24, 1984
Buried Valley Aquifer System	NJ	45 FR 30537	May 8, 1980
Cattaraugus Creek Aquifer System	NY	52 FR 36100	September 25, 1987
Clinton Street-Ballpark Aquifer System	NY	50 FR 2025	January 14, 1985
Cortland-Homer-Preble Aquifer System	NY	53 FR 22045	June 13, 1988
Highlands Aquifer System	NJ/NY	52 FR 37213	October 5, 1987
Nassau/Suffolk Aquifer System	NY	43 FR 26611	June 21, 1978
New Jersey Coastal Plain Aquifer System	NJ	53 FR 23791	June 24, 1988
Northwest New Jersey Fifteen Basin Aquifer System	NJ/NY	53 FR 23685	June 23, 1988
Ridgewood Area Aquifer System	NJ/NY	49 FR 2943	January 24, 1984
Schenectady/Niskayuna Aquifer System	NY	50 FR 2022	January 14, 1985
Upper Rockaway River Basin Aquifer System	NJ	49 FR 2946	January 24, 1984

FOR MORE INFORMATION CONTACT

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

TELEPHONE CONVERSATION RECORD

DATE: 2/13/90 TIME: 11:10 PROJECT: 07704
FROM: Ellen Beacon TO: Bob Dassler
COMPANY: Roux Associates, Inc. COMPANY: Suffolk Co. Water Authority
TEL. NO.: (516)673-7200 TEL. NO.: 563-0317

RE: Locations of SCWA well fields within three miles of south Montclair Avenue landfill and the population served by these wells.

Mr. Dassler stated that the well fields are intergrated, and in order to determine the population served we need to submit a request to:

Edward J. Rosavitch-Chief Engineer
4040 Sunrise Highway
Oakdale, NY 11769

Well fields close to the site include:

Astor South of Oak see Hagstrom
Hallock & Rosalia
Hertin & Middle Country Road

There are private wells in the area- check with the department of Health.

New York State Atlas of Community Water System Sources 1982

NEW YORK STATE
DEPARTMENT OF HEALTH

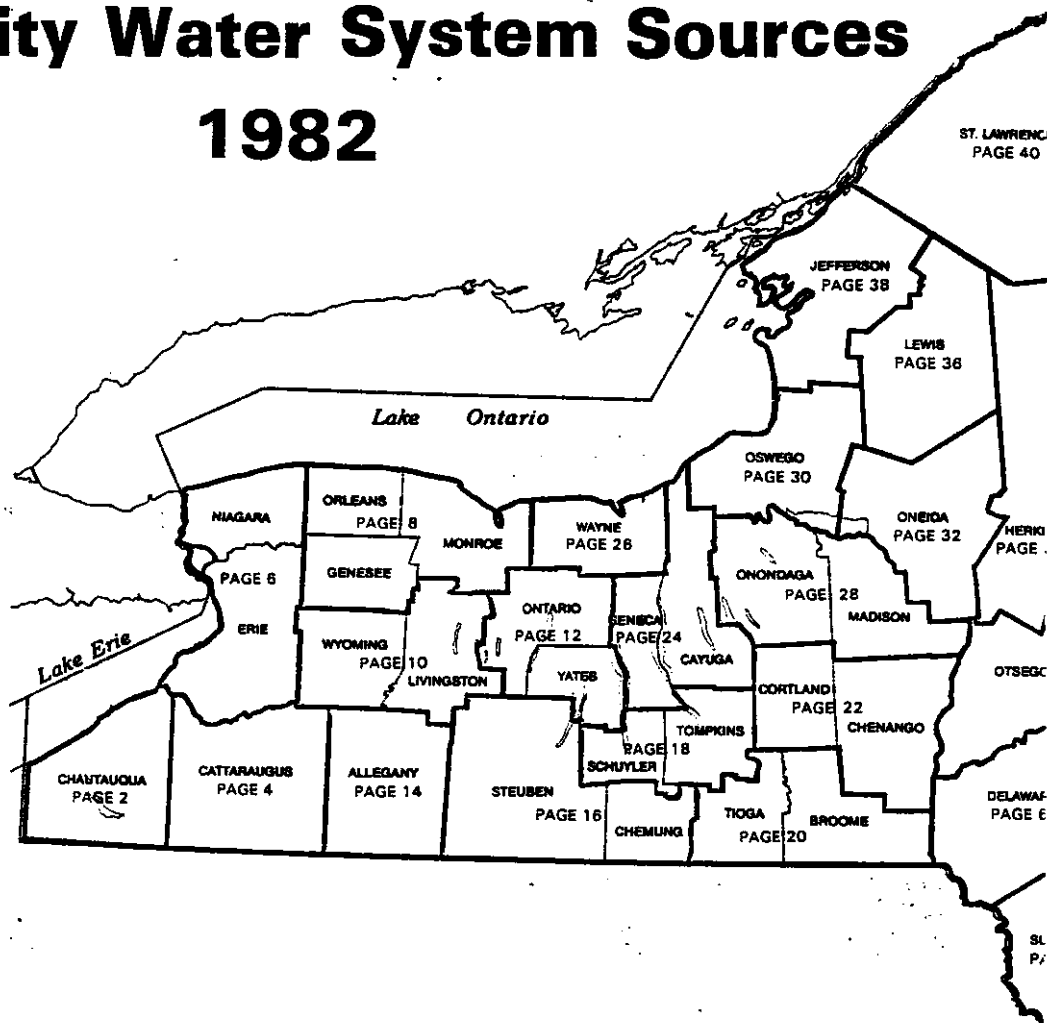
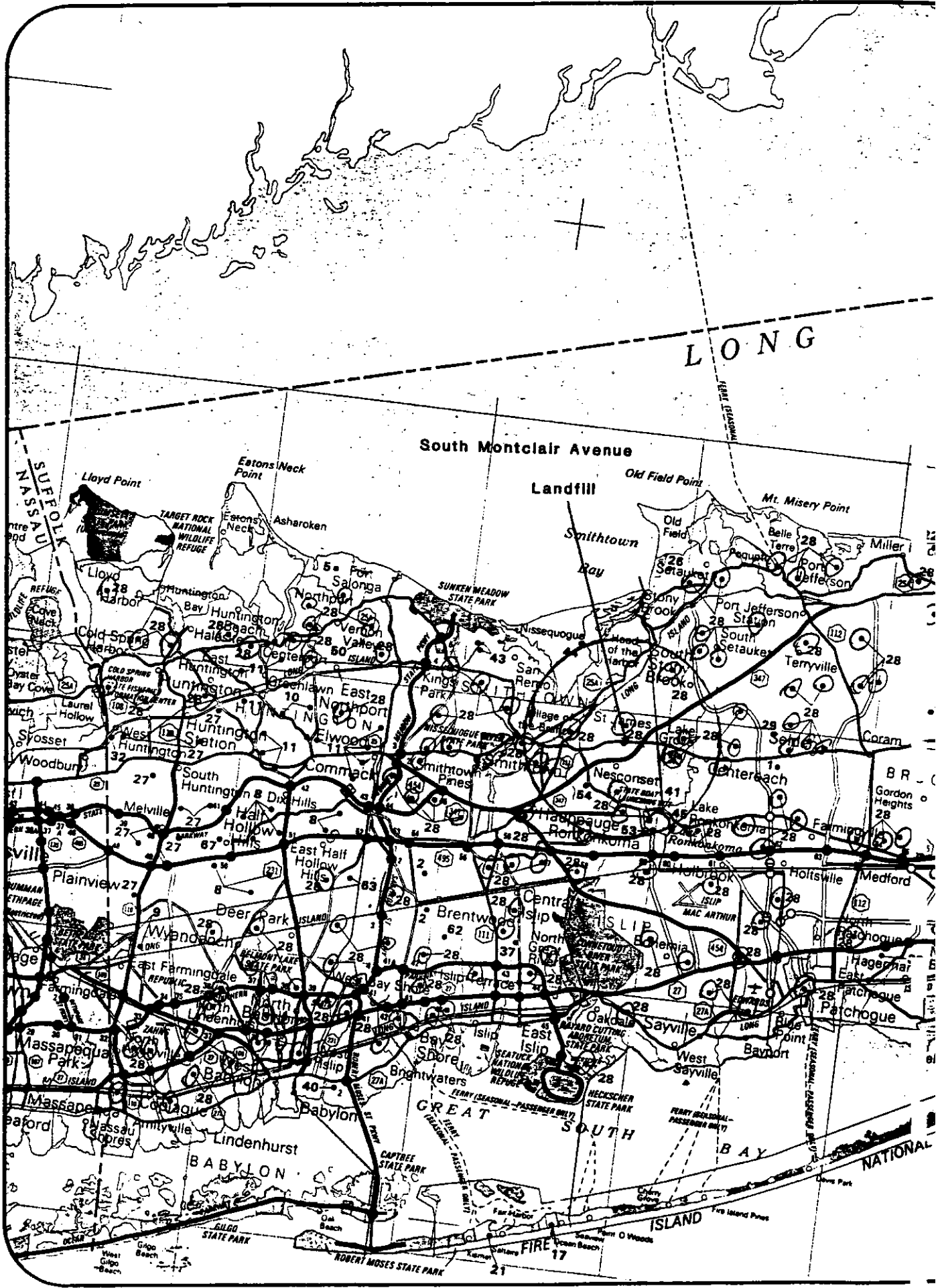


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LOCATION OF COMMUNITY WATER SYSTEM SOURCES-1982



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

**TELEPHONE CONVERSATION RECORD**

DATE: 3/5/90 TIME: 0955 PROJECT: 07704Y
FROM: Ellen Beacon TO: Mr. Bob Dassler
COMPANY: Roux Associates, Inc. COMPANY: Suffolk County Water Authority
TEL. NO: 673-7200 TEL. NO: 563-0317

RE: My letter of 2/13/90 requesting the population served by SCWA wells within a three mile radius of south Montclair Avenue Landfill.

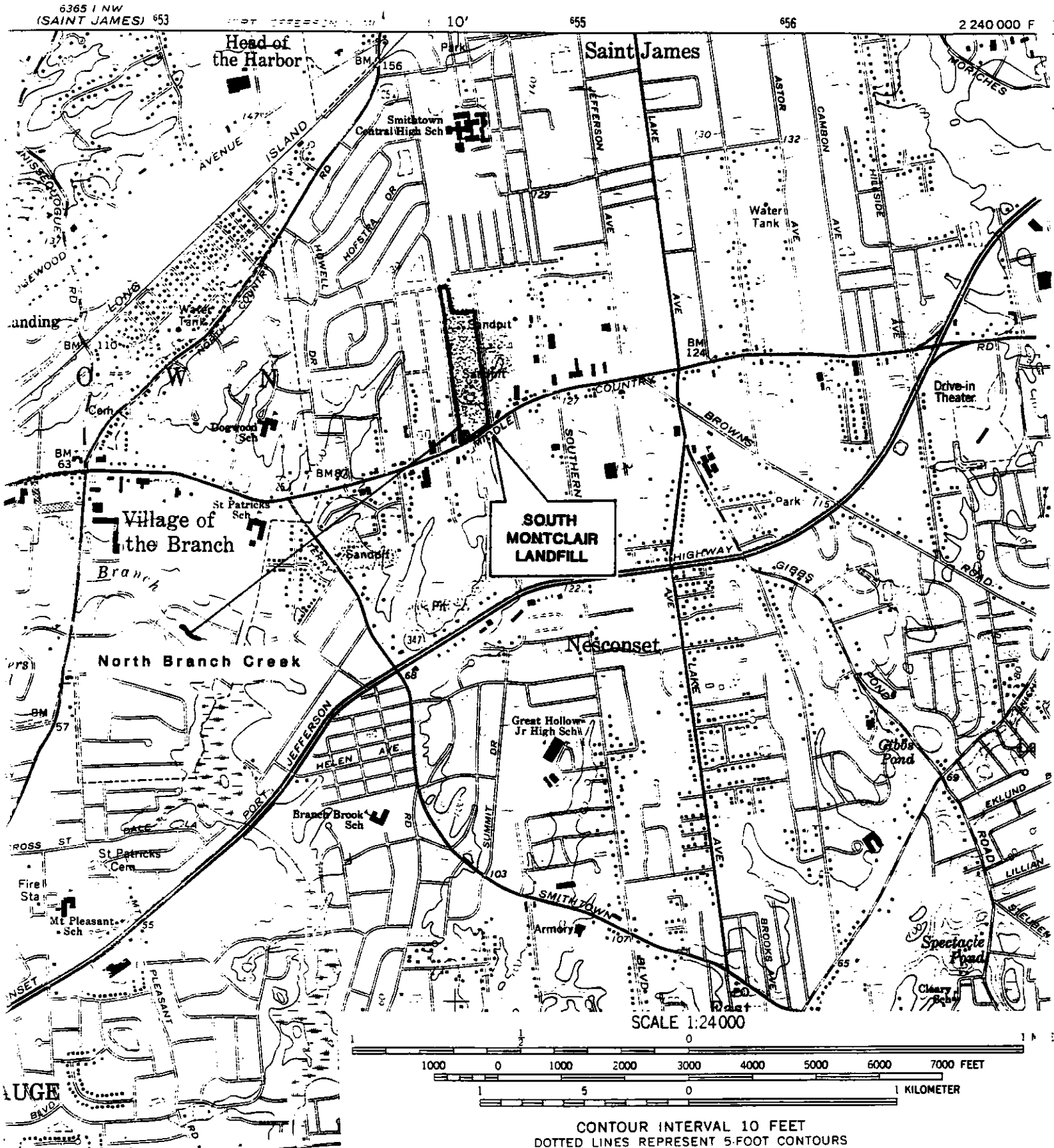
Mr. Dassler reiterated his previous statement that SCWA wells are integrated and therefore he cannot tell us that the wells within the 3 mile radius serve a particular number of people (other than the 900,000 served by SCWA county wide). However, he can calculate the population served by SCWA within three miles of the site.

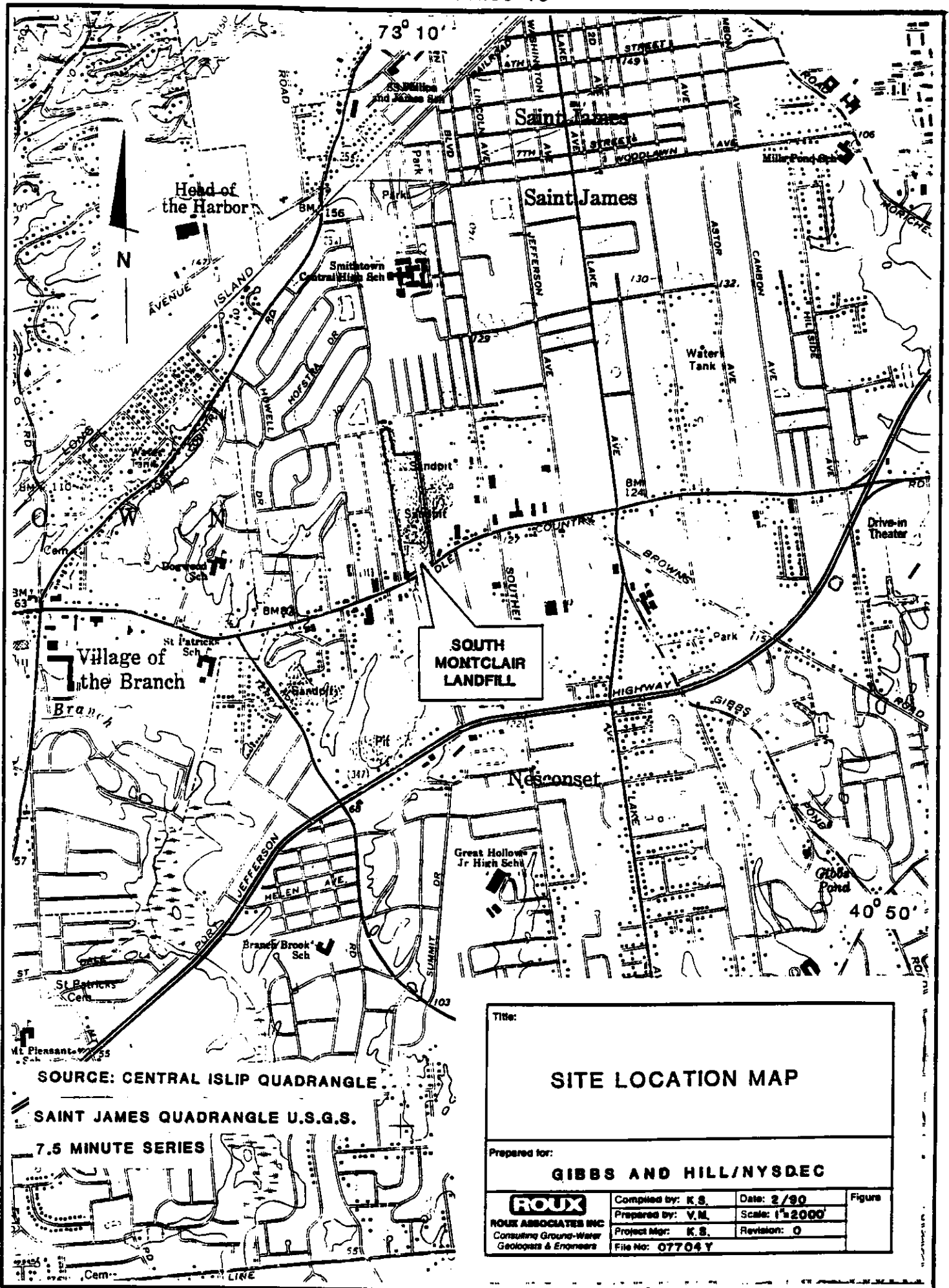
Proximity of Active Agricultural Land and Prime Farmland to Candidate Inactive Hazardous Waste Sites
 Site 12 - South Montclair Landfill
 Source: NYSDOM

Site No.	Sheet No.	Criteria		Comments
		#1*	#2**	
1	57 #	No	Yes	Prime farmland within 2 but not 1 mile
3	70 #	Yes	Yes	Prime farmland within 3/4 mile
5	8 & 17 #	Yes	Yes	Active prime farmland in Suffolk County Agricultural District #1 adjacent to site
6	40 #	No	No?	Mount Sinai area to N/E (Sheet 40) and area to east should be investigated - farmland is at the 2 mile range
8	64 & 65 #	No	No	
12	54 #	Yes	Yes	Nursery stock 700 ft. south; 40 acre vegetable farm is SW about 1.5 miles; within mile to the north
16	51 #	Yes	Yes	30 acre vegetable farm to the west; areas to the east
17	17 #	Yes	Yes	All farmland prime; horse farm adjacent to site to the west; also farmland within 3/4 mile to the North and Northeast
18	47 #	Yes	Yes	Prime farmland within 1.5 miles; vegetable farm within a mile at North Sea
23		Yes	Yes	Active agricultural land within 1/4 mile, active prime farmland within 1/2 mile - site is adjacent to Rensselaer County Agricultural District #7
24		Yes	Yes	Active prime farmland within 1/4 mile; site is adjacent to Rensselaer County Agricultural District #3.

*Distance to agricultural land in production within past 5 years, if 1 mile or less.
 **Distance to prime agricultural land in production within past 5 years, if 2 miles or less.
 # Soil survey of Suffolk County, USDA-SCS in cooperation with Cornell Agricultural Experiment Station issued 4/75-- information obtained during telephone conversations with Suffolk County SWCD, and County USDA, Agricultural Stabilization and Conservation Service staff.
 # - Not Applicable; soil survey mapping completed--awaiting publication--information obtained during telephone conversation with the USDA-SCS, District Conservationist with the Rensselaer County SWCD.

Central Islip, New York Quadrangle
U.S.G.S 15-minute Series





**SOUTH
MONTCLAIR
LANDFILL**

SOURCE: CENTRAL ISLIP QUADRANGLE

SAINT JAMES QUADRANGLE U.S.G.S.

7.5 MINUTE SERIES

Title:			
SITE LOCATION MAP			
Prepared for:			
GIBBS AND HILL/NYSDEC			
ROUX ROUX ASSOCIATES INC Consulting Ground-Water Geologists & Engineers	Compiled by: K.S.	Date: 2/90	Figure
	Prepared by: V.M.	Scale: 1"=2000'	
	Project Mgr: K.S.	Revision: 0	
	File No: 07704 Y		

TELEPHONE CONVERSATION RECORD

DATE: 2/9/90 TIME: 10:20 PROJECT: 07704 So. Montclair
FROM: Ellen Beacon TO: Ron Verberg
COMPANY: Roux Associates, Inc. COMPANY: LI Regional Planning Board
TEL. NO: (516)673-7200 TEL. NO: 360-5190/5199
RE: Uses of surface water within 3 miles of the So. Montclair Avenue landfill, Smithtown

Specifically:

Nissoquoque River- primarily recreation (canoeing, sailing, & motor boating)

New Mill Pond- recreation

Miller's Pond- recreation/ice skating

Gibbs Pond- surrounded by homes limited recreation

Spectacle Pond- passive recreation?-

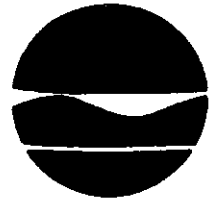
Lake Ronkonkoma- recreation/scuba/3 town beaches/ boat ramps/fishing

Stony Brook Harbour- recreational motor & sail boating/shell fishing .
surface water is not used as a source of potable water in this area/
and for most of LI.

NO COMMERCE

New York State Department of Environmental Conservation

Information Services
Wildlife Resources Center
Delmar, NY 12054-9767



Thomas C. Jorling
Commissioner

February 22, 1990

Ms. Ellen Bacon
Roux Associates Inc.
775 Park Ave., Suite 255
Huntington, NY 11743

Dear Ms. Bacon:

We have reviewed the Significant Habitat Program and the Natural Heritage Program files with respect to the South Montclair Avenue Landfill in the Town of Smithtown, Suffolk County.

We did not identify any potential impacts on endangered, threatened, or special concern wildlife species, rare plant, animal or natural community occurrences, or other significant habitats.

The absence of data does not necessarily mean that rare or endangered elements, natural communities or other significant habitats do not exist on or adjacent to the proposed site, but rather that our files currently do not contain any information which indicates the presence of these. 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 cannot provide a definitive statement on the presence or absence of species, habitats or 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 offices(s), Division of Regulatory Affairs, at the address(es) on the enclosed list for information regarding any regulated areas or permits that may be required (e.g., regulated wetlands) under state law.

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

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

Sincerely,

B. Buffington
Burrell Buffington
Significant Habitat Unit

50° 51' 33"
73° 09' 27"
* So. Montclair Ave handfl

Source: Donnelley Marketing,
1984 (Census data - 1980)

AREA NUMBER	DESCRIPTION	POPULATION	HOUSEHOLDS
AREA 4 SITE-6			
4.1	RING: 0.50 MILE (H)	1601	0
4.2	RING: 1.00 MILE (S)	5405	1
4.3	RING: 2.00 MILE (B)	31999	9299
4.4	RING: 4.00 MILE (B)	125206	26938
AREA 5 SITE-20			
5.1	RING: 0.25 MILE (B)	0	0
5.2	RING: 0.50 MILE (B)	2066	688
5.3	RING: 1.00 MILE (S)	10015	3087
5.4	RING: 2.00 MILE (R)	28890	8624
5.5	RING: 4.00 MILE (S)	89187	24229
AREA 6 SITE-4			
6.1	RING: 0.25 MILE (B)	9741	3874
6.2	RING: 0.50 MILE (H)	32452	13605
6.3	RING: 1.00 MILE (S)	125525	49787
6.4	RING: 2.00 MILE (B)	506222	193067
6.5	RING: 4.00 MILE (S)	1540964	594442
AREA 7 SITE-23			
7.1	RING: 0.25 MILE (B)	3731	1133
7.2	RING: 0.50 MILE (R)	14593	5145
7.3	RING: 1.00 MILE (S)	75336	24110
7.4	RING: 2.00 MILE (B)	246835	11439
7.5	RING: 4.00 MILE (S)	0	0
AREA 8 SITE-14			
8.1	RING: 0.25 MILE (S)	0	0
8.2	RING: 0.50 MILE (H)	0	0
8.3	RING: 1.00 MILE (B)	0	0
8.4	RING: 2.00 MILE (S)	0	0
8.5	RING: 4.00 MILE (S)	11699	4023
AREA 9 SITE-14			
9.1	RING: 0.25 MILE (S)	0	0
9.2	RING: 0.50 MILE (H)	0	0
9.3	RING: 1.00 MILE (B)	11499	3503
9.4	RING: 2.00 MILE (S)	36474	11213
9.5	RING: 4.00 MILE (S)	144295	45884
AREA 10 SITE-7			
10.1	RING: 0.25 MILE (S)	0	0
10.2	RING: 0.50 MILE (B)	2466	710
10.3	RING: 1.00 MILE (S)	8521	2350
10.4	RING: 2.00 MILE (S)	31757	8732
10.5	RING: 4.00 MILE (S)	135001	36974

Learned Avenue
40° 55' 57"
73° 03' 39"

S. low Red
40° 38' 35"
73° 58' 43"

Merrill LF
40° 39' 08"
73° 33' 47"

Sand Lake LF
42° 36' 17"
73° 37' 32"

Hazelbry
40° 51' 52"
73° 22' 08"

Dented Relops
40° 50' 08"
73° 19' 15"

Hertingh Landfl
40° 52' 50"
73° 17' 22"

APPENDIX A

Literature and Historic Data

INTRODUCTION

Roux Associates Inc. has completed an in-depth literature search on the South Montclair Avenue Landfill site. The literature search involved file searches at the following agencies: The New York State Department of Environmental Conservation (NYSDEC), Division of Solid and Hazardous Waste, Region I; the NYSDEC, Division of Hazardous Waste Remediation, Albany; the NYSDEC, Bureau of Municipal Waste, Division of Solid Waste, Albany; the New York State Department of Health, Albany; Suffolk County Department of Health Services (SCDHS), Water Quality Unit, Hauppauge; and SCDHS, Farmingville.

Documentation generated since the completion of Woodward-Clyde's Phase I Investigation of the site (December 1985) is provided in this appendix. In addition, documentation that was not in the Phase I Report has been included. Documentation duplicating that in the Phase I Report is listed in Section V of this report. The current site description is based on Roux Associates Inc. site reconnaissance and recent aerial photographs (AeroGraphics 1988).

The South Montclair Landfill was used as a municipal landfill from 1967 until 1970, when the Town of Smithtown moved its major landfill operation to Kings Park. Since 1970, the landfill is only permitted to be used by the Town of Smithtown for leaf mulching and storage of Highway Department materials. During the mid-70's, home owners located north and northwest of the landfill (Arthur Drive) began filing complaints against the landfill for emitting methane gas and odors. In some cases, potentially explosive concentrations of methane were detected in the basements of homes located on the landfills perimeter (Reference A-1).

On February 23, 1978 the Town of Smithtown signed an agreement with the Suffolk County Department of Environmental Control. The town agreed to install 22 15-inch diameter perforated corrugated trench pipes to a depth of about 13-feet to vent landfill gases. In addition, five 10-foot diameter concrete leaching rings, extending to a depth of about 35 feet, were installed to further facilitate venting east of Arthur Drive. A monitoring program was also put into effect to monitor methane levels inside the affected homes and in test wells in front of these houses (Reference A-2).

Since the Phase I Investigation was completed, the methane venting program has progressed. In March 1986, the Town of Smithtown retained Velzy Associates, a consulting engineering firm, to design a methane migration system at the South Montclair Landfill. The system was designed to prevent off-site migration of methane gas to the surrounding soils (Reference A-3). The proposed system has been installed, and consists of several wells which connect to a common pipe and motor/blower. The draft system discharges any gas which collects in the wells, to the atmosphere. This system is located within a fenced-in area on the east side of the landfill.

In a July 1986 letter to the NYSDEC, the New York State Department of Health noted that two contaminated private wells, just 500 feet from the South Montclair Landfill site, had not been mentioned in the Phase I report. The two contaminated wells are located at 44 and 45 Prospect Avenue which is south of the landfill (Reference A-4). Although these two wells are not downgradient of the site, the ground-water quality in the area is a major focus of the Phase II Investigation. The analytical results for these wells can be found in Reference A-5.

In April 1988, the NYSDEC, Albany contacted Smithtown Concrete Products Corporation (Neal Spevack), the business immediately adjacent to the landfill. Neal Spevack gave the NYSDEC permission to install one upgradient monitoring well on the front lawn of the Smithtown Concrete Products facility (Reference A-6).

During Roux Associates site reconnaissance of the South Montclair Landfill on September 16th and 19th, 1988, several changes in the site were noted since the completion of the Phase I report. Soccer fields are no longer located in the northeast corner of the site. The site extends north to a barbed wire fence and a new house has been built just north of the fence on Montclair Avenue. A recharge basin (about 450 feet by 100 feet) has been excavated along the western property line of the landfill and is completely fenced-in. A new residential development has been built west of the recharge basin.

Although construction is still in progress, the area is partially occupied. On the western edge of the site, the landfill's fence is completely missing in several areas and the site may be accessed within the vicinity of the recharge basin either on foot or by vehicle. Breaks in the fence and bike trails were also seen in the methane venting area. Children were actively using these paths during our site reconnaissance.

The landfill is now completely filled in, although we observed several trucks still actively dumping concrete, asphalt, soil and wood (Reference A-7). During a NYSDOH site visit on January 23, 1985, similar observations were noted. In addition, the NYSDOH inspector saw evidence of recent on-site trash and sewer sludge disposal (Reference A-5).

REFERENCES

- Reference A-1: Anthony J. Forte, (Town of Smithtown Attorney) letter to Paul Gianelli (Office of the District Attorney, Suffolk County), March 25, 1977.
(Source: NYSDEC, Division of Hazardous Waste Remediation, Albany)
- Reference A-2: James Maloney (Suffolk County Department of Health Services, SCDHS) letter to John Toomey (Assistant Town Attorney, Smithtown), February 23, 1978.
(Source: NYSDEC, Division of Hazardous Waste Remediation, Albany)
- Reference A-3: Alan Sanchez (Velzy Associates) letter to James Maloney (SCDHS), March 14, 1986.
(Source: Suffolk County Department of Health Services)
- Reference A-4: Ronald Tramontano (NYSDOH) letter to Charles Goddard (NYSDEC, Albany), July 23, 1986.
(Source: NYSDEC, Division of Hazardous Waste Remediation, Albany)
- Reference A-5: NYSDEC Inactive Hazardous Waste Disposal Site Report and Hazardous Waste Site Investigation Report.
(Source: New York State Department of Health)
- Reference A-6: Marsden Chen (NYSDEC, Albany) letter to Neal Spevack (Smithtown Concrete Products Corp.), April 18, 1988, and response April 26, 1988.
(Source: NYSDEC, Division of Hazardous Waste Remediation, Albany)
- Reference A-7: Updated NYSDEC Inactive Hazardous Waste Disposal Report, December 1987.
(Source: NYSDEC, Division of Hazardous Waste Remediation, Albany)

REFERENCE A-1

TOWN OF SMITHTOWN

SUPERVISOR

CHARLES F. CACCIABAUDO

COUNCILMEN

OTTO H. SCHUBERT
 EUGENE A. CANNATARO
 PETER G. DOUNIAS
 JOAN M. FRANKE

516 265-2900

OFFICE OF THE TOWN ATTORNEY

ANTHONY J. FORTE

TOWN ATTORNEY

March 25, 1977

Office of the District Attorney
 Suffolk County
 County Centre
 Riverhead, N. Y. 11901

Attn: Paul Gianelli, Chief
 Assistant

Re: People v. Town of Smithtown - #13817-76

Dear Mr. Giannelli:

During the year 1967, the Town of Smithtown obtained the approval from the Suffolk County Department of Health which gave the Town the go-ahead on a landfill site on Montclair Avenue, in Smithtown, N. Y.

Since that time, the Town of Smithtown has been operating the landfill in a most sanitary fashion and has always abided by all the rules and regulations promulgated by the State, as well as the Suffolk County Department of Health, and the landfill has been under the constant eye of the Health Department and, also, the State Department of Environmental Conservation. At no time was the Town faulted for any method it was using, or was it ever faulted for failure to comply with any State or County rules or regulations.

The area was actively used as a landfill site until 1970 when the Town moved its major operation to Old Northport Road, Kings Park, New York. Again, the Town Engineer obtained permits for the move to the new site from the Suffolk County Department of Health.

After the move to Kings Park, the Montclair site remained in a dormant condition, as far as landfills go, and the Town continued to use it only for a leaf mulching program and for storage of Highway Department materials. This use continues to date.

-continued-

Paul Giannelli, Chief Assistant
Office of the District Attorney

March 25, 1977
Page 2.

During the summer of 1976 certain areas of Long Island were the subject of criticism in the press concerning problems with methane gas in and about landfill areas. As a result of this adverse publicity, the residents of Arthur Drive, in Smithtown, an area directly west of the landfill site, began complaining to the Town and the County about foul odors and fear that methane gas could cause an explosive situation.

The Town immediately instituted a monitoring program to alleviate the fears of people and to attempt to insure the safety of the people and property.

As an additional precaution, and to prevent any landfill gases from migrating beyond the periphery of the landfill, the Town commenced a venting program. This initially consisted of placing 22, 18" diameter, perforated corrugated metal pipes around the northerly end of the landfill site - on the west, north and east thereof. In addition, the Town installed 5, 10 foot diameter, reinforced concrete drainage rings, 40 feet deep (the bottom of the landfill) in the area immediately to the easterly side of Arthur Drive.

The Town has expended the sum of approximately \$25,000 for these projects and continues to seek guidance from both the State of New York and the County of Suffolk for solutions to the problems that exist throughout the County and the State, not only the Town of Smithtown.

I respectfully submit to you that at no time has the Town committed an act which was illegal, or at no time did it commit an act which it knew would result in a condition that would be considered illegal. On the contrary, throughout the years the Town of Smithtown has been a leader in sanitary landfills and has always operated them in strict compliance with all existing rules and regulations, both State and County.

It has been suggested to me that the Town should correct the problem by "excavating the landfill area and burning the complete contents". I can only refer to such a suggestion as ridiculous

Paul Giannelli, Chief Assistant
Office of the District Attorney

March 25, 1977
Page 3.

and absurd; a solution I feel is preposterous and, may I add, would be economically disasterous.

This case is presently scheduled for trial for April 4th, 1977. It is my firm desire that the District Attorney's office will reconsider its position on this matter and, that considering all the facts of this case, will decide to withdraw the matter from the courts and place it before the scientists and engineers where it properly belongs.

May I hear from you with reference to my request as soon as possible.

Very truly yours



Anthony J. Forte
Town Attorney

AJF:jm

REFERENCE A-2

65 Jetson Lane

////////////////////

February 23, 1978

John J. Toomey, Esq.
Assistant Town Attorney
135 West Main Street
Smithtown, NY 11787

Dear Mr. Toomey:

Please find enclosed a copy of an agreement signed by the writer for the Department. I feel that this proposed agreement can be used to handle the problem of gas and odor emanations from the Montclair landfill.

I would suggest you contact Mr. Perchik of the Suffolk County District Attorney's office to resolve any legal technicalities.

If I can be of any further assistance, do not hesitate to contact me.

Very truly yours,

JCM:ft
Encs.

James C. Maloney, P. E., Chief
Air Pollution Control

CC: Frank Mooney, P. E., Town Engineer's Office, P.O. Box 575
Smithtown, NY 11787

S. Perchik Esq.

BCC; Harris Fischer, PhD.

William C. Roberts, P. E.

COUNTY OF SUFFOLK
DEPARTMENT OF ENVIRONMENTAL CONTROL

..... X

In the Matter of the Alleged Non-compliance:
and non-conformance with the Suffolk County:
Sanitary Code, Article X, Section 23, (Air :
Pollution Control :

AGREEMENT

TOWN OF SMITHTOWN :

..... X

WHEREAS:

1. Potentially explosive concentrations of methane have been monitored by the Department in the waste pipe trap pits of certain residences on Arthur Drive, in close proximity to what is known as the Montclair Avenue Sanitary Landfill, owned and previously operated by the Town of Smithtown; and

2. Adjacent residents have complained of an odor described as decaying refuse; and

3. There is reasonable probability that the methane and odor problems are a result of gas migration and emissions from the aforementioned sanitary landfill; and

4. While not admitting a connection between the aforesaid problems and its landfill, the Town of Smithtown has taken the following steps:

- a) Installed 15" diameter perforated corrugated trench pipe, 100' on centers to a depth of approximately 13' to vent landfill gases.
- b) Installed reinforced concrete leaching rings to a depth of approximately 35' spaced equidistantly between the trench pipe vents to further facilitate decomposition gas venting.
- c) Initiated a comprehensive methane monitoring program both inside the affected residences and in test wells in the front of the residences as well as in the vent wells themselves

5. It is necessary further to ensure the permanent discontinuance of the aforesaid problems:

NOW, upon the agreement of all the parties hereto, it is agreed:

1. THAT, Respondent will submit plans for continued monitoring of methane concentrations and odor emissions near the landfill site.
2. THAT, on the first day of each month respondent shall submit to the Department reports of such monitoring and the findings.
3. THAT, if the monitoring reports show methane concentrations in inhabited structures exceed 20% of the lower explosive limit for methane, respondent shall install perforated pipes along the center of the landfill to further vent decomposition gases.
4. THAT, in the event that future methane migration or odor problems are detected by the Department, Respondent will, when directed by the Department, connect the perforated pipes via a header and will extract decomposition gases via suction fan from the landfill and dispose of said gases in a manner acceptable to the Department.

Dated: Hauppauge, New York

Suffolk County Department
of Environmental Control

By: James C. Maloney
James C. Maloney, P. E., Chief
Air Pollution Control

Town of Smithtown

By: _____

REFERENCE A-3

~~Velzy~~ ASSOCIATES

March 14, 1986

Charles R Velzy Associates, Inc.
Consulting Engineers
One Old Country Road, Suite 430
Carle Place, New York 11514
Telephone: 516/742-8831

Mr. James Maloney
Suffolk County Health Dept.
15 Horse Block Place
Farmingville, New York 11730

RE: Town of Smithtown
Closed Montclair Avenue Sanitary Landfill
Methane Migration System

Dear Mr. Maloney:

The Town of Smithtown has retained Velzy Associates to design a methane migration system at the above referenced site to prevent offsite migration of methane gas to the surrounding soils.

It is proposed to install an induced draft system around the perimeter of the landfill. Wells will be installed and manifolded to a common header pipe which will be connected to a motor/blower. Gas collected at the wells will be discharged to the atmosphere through an elevated stack. The blower and stack will be located on the southeast side of the site along Montclair Avenue.

As per our phone conversation on March 10, 1986, I am requesting the environmental impact application, air discharge permit and any other forms necessary for this installation.

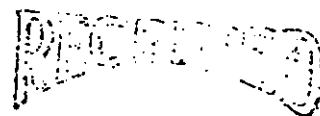
If there are any questions, please do not hesitate to call.

Very truly yours,

Alan R Sanchez

Alan R. Sanchez

ARS/mj



MAR 25 1986

S.C. DEPT. OF
HEALTH SERVICES

Armonk, New York 10504
Telephone: 914/773-9840
Richmond, Virginia 23288
Telephone: 804/288-6061
York, Pennsylvania 17401
Telephone: 717/846-4614

REFERENCE A-4

STATE OF NEW YORK
 DEPARTMENT OF HEALTH  OFFICE OF PUBLIC HEALTH

CORNING TOWER • THE GOVERNOR NELSON A. ROCKEFELLER EMPIRE STATE PLAZA • ALBANY, N.Y. 12237

DAVID AXELROD, M.D.
 Commissioner

LINDA A. RANDOLPH, M.D., M.P.H.
 Director

WILLIAM F. LEAVY
 Executive Deputy Director

*Walt
 Matuszew*

July 23, 1986

RECEIVED

JUL 25 1986

Mr. Charles Goddard, P.E.
 Director
 Bureau of Hazardous Site Control
 NYS Department of Environmental
 Conservation
 50 Wolf Road
 Albany, New York 12233

BUREAU OF HAZARDOUS SITE CONTROL
 DIVISION OF SOLID AND
 HAZARDOUS WASTE

Dear Mr. Goddard: *Charlie*

We have reviewed the Phase I and Phase II reports which you transmitted on June 27, 1986. Below are comments on some of the sites which I would like to bring to your attention:

*WCC
 MK*

152042 - South Montclair Avenue Landfill - The report does not identify two contaminated private wells 500 feet from the landfill.

*WCC
 MK*

224010 - Silver Rod Drug Company - The report states that the area was used for vegetable gardens. Further site investigation should focus on surface and near-surface soil sampling.

*EIS
 LA*

704005 - Tri Cities Barrel Co. - The groundwater investigation was much too limited. The extent of contamination was not identified nor was the contaminated private well adjacent to the site addressed. Downgradient monitoring wells should extend deeper into the overburden and also into the bedrock. *EIF*

TM

734014 - Fraser and Jones - Report states site inaccessible which is inconsistent with findings of Ron Heerkens. Mr. Heerkens also discovered additional barrels onsite.

LA

738004 a & b - Armstrong and Cork - The report notes leachate as a "point of interest" but fails to provide documentation. DEC has required A & C to carry out an extensive sampling program in the Oswego River based on mirex contamination found downstream but the report does not score surface water release.

Also, please recall that we agreed a second copy of reports would be provided for sites in DEC REgions 4, 5, 6 and 7 for dispersal to our Albany and Syracuse regional staff.

Sincerely,

A handwritten signature in cursive script that reads "Ron".

Ronald Tramontano, P.E.
Chief, Environmental Exposure
Investigation Section
Bureau of Toxic Substance
Assessment

RT/CH/pb
A0361

REFERENCE A-5

(47-15-11 (10/83)

2-1-84

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF SOLID AND HAZARDOUS WASTE
INACTIVE HAZARDOUS WASTE DISPOSAL SITE REPORT

PRIORITY CODE: 2a SITE CODE: 152042

NAME OF SITE: South Montclair Avenue Landfill REGION: 1

STREET ADDRESS: South Montclair Avenue

TOWN/CITY: Smithtown COUNTY: Suffolk

NAME OF CURRENT OWNER OF SITE: Town of Smithtown

ADDRESS OF CURRENT OWNER OF SITE: 99 West Main St., Smithtown, NY 11787

TYPE OF SITE: OPEN DUMP STRUCTURE LAGOON
LANDFILL TREATMENT POND

ESTIMATED SIZE: 20 ACRES

SITE DESCRIPTION:

Inactive municipal landfill

entire 1/2/86

Handwritten notes:
3/18/86
New York

HAZARDOUS WASTE DISPOSED: CONFIRMED SUSPECTED
TYPE AND QUANTITY OF HAZARDOUS WASTES DISPOSED:
TYPE QUANTITY (POUNDS, DRUMS, TONS, GALLONS)
Mixed Municipal Refuse Unknown

TIME PERIOD SITE WAS USED FOR HAZARDOUS WASTE DISPOSAL:

_____, 19 ____ TO _____, 19 ____

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

SITE OPERATOR DURING PERIOD OF USE: Town of Smithtown

ADDRESS OF SITE OPERATOR: 99 West Main St., Smithtown, NY 11787

ANALYTICAL DATA AVAILABLE: AIR SURFACE WATER GROUNDWATER
SOIL SEDIMENT NONE

CONTRAVENTION OF STANDARDS: GROUNDWATER DRINKING WATER
SURFACE WATER AIR

SOIL TYPE: _____

DEPTH TO GROUNDWATER TABLE: _____

LEGAL ACTION: TYPE: _____ STATE FEDERAL

STATUS: IN PROGRESS COMPLETED

REMEDIAL ACTION: PROPOSED UNDER DESIGN

IN PROGRESS COMPLETED

NATURE OF ACTION: _____

ASSESSMENT OF ENVIRONMENTAL PROBLEMS:

Potential groundwater contamination.

ASSESSMENT OF HEALTH PROBLEMS:

INDEPENDENT INFORMATION

PERSON(S) COMPLETING THIS FORM:

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

NAME T. Sanford, P.E.

TITLE Sr. San. Engineer

NAME R.A. Olazagasti

TITLE Solid Waste Mgmt. Spec.

DATE: Nov. 18 & 28, 1983

NEW YORK STATE DEPARTMENT OF HEALTH

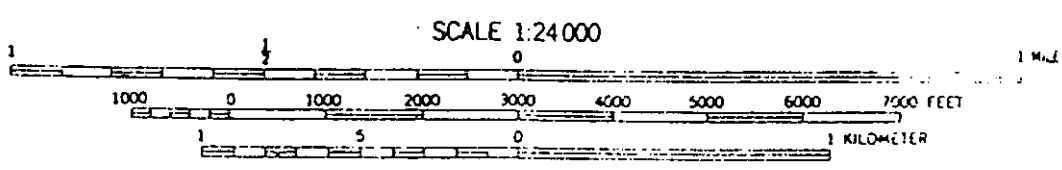
NAME Ronald Tramontano

TITLE Bur. Tox. Sub. Assess.

NAME _____

TITLE _____

DATE: December 1983



30 FRONTLARK AVE OF SITE #152000
 CENTRAL HIGH SCH AND GREAT HOLLOW JR HIGH SCH

STATE ID # 152042
 STATE CLASS. 2A
 DOH RANKING _____
 DEC RANKING _____
 HRS SCORE _____

BUREAU OF TOXIC SUBSTANCE ASSESSMENT
 HAZARDOUS WASTE SITE INVESTIGATION REPORT

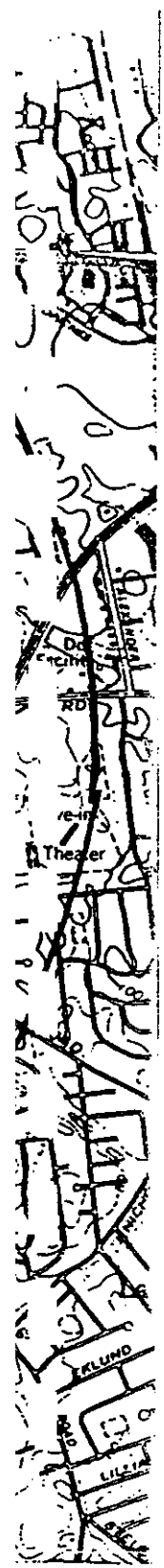
Identifying Information

SITE NAME: 300-1100 CLARK AVE L.F.
 ADDRESS: 300-1100 CLARK AVE.
 OWNER: TOWN OF SMITH TOWN
 ADDRESS & PHONE NO.: 97 W. MAIN ST., SMITH TOWN, N.Y. ()
 DEC REGION: 1 DOH REGION: NEW ROCHELLE COUNTY: SUFFERT TOWN: SMITH TOWN
 QUADRANGLE MAP: CENTRAL ISLIP (1981)
 INSPECTORS & DATE: T. FORT, R. TUERS 1/23/85

Site Data

SIZE (acres): 20 TERRAIN: Hilly ^{LAND FILL HILL} ONLY Flat ✓
 SUBURBAN: _____ URBAN: _____ RURAL: _____
 INDUSTRIAL: ✓ MUNICIPAL: _____ OTHER: _____
 ACTIVE: ✓ INACTIVE: ✓ (NO LONGER DUMPING MATERIAL - WASTE IS AT STILL DUMPING SITES - SLEWERS, SLUDGE & TRS)
 KNOWN AND SUSPECTED USERS: TOWN OF SMITH TOWN

CONTAMINANTS OF CONCERN:	KNOWN CONTAMINATION:	On Site		Off Site	
		_____	_____	_____	_____
Soil Vapor	Air	_____	_____	_____	_____
Soil Contact	Groundwater	_____	_____	_____	<u>X</u>
Groundwater	Surface Water	_____	_____	_____	_____
	Drinking Water	_____	_____	_____	_____
	Surface Soil	_____	_____	_____	_____
	Sub Surface Soil	_____	_____	_____	_____



Site Status

Inspection: X
Investigation:
Negotiation:
Litigation:
Remediation:

Agencies Involved:
DOH X
DEC X
DOL
EPA
County

Comments

ALTHOUGH THIS SITE IS LISTED AS INACTIVE ON THE REGISTRY, AT THE TIME OF SITE INSPECTION THERE WAS EVIDENCE OF RECENT DISPOSAL OF TRASH AND SEWER SLUDGE. ACCORDING TO DON ENGLISH, TOWN OF SMITHTOWN, THE SITE IS CURRENTLY UNDERGOING CLOSURE (HE WAS INTERVIEWED ON-SITE),

A METHANE PASSIVE VENTING SYSTEM WAS INSTALLED ON THE NORTH END OF THE LANDFILL IN APPROXIMATELY 1978 TO PREVENT METHANE MIGRATION INTO NEARBY HOMES. ACCORDING TO FRANK MOONY (TOWN OF SMITHTOWN ENGINEER), ALTHOUGH METHANE WAS DETECTED INSIDE IN THE PAST, THERE HAVE BEEN NO POSITIVE READINGS FOR 5 YEARS. THERE IS NO DATA AVAILABLE REGARDING METHANE LEVELS IN RESIDENCES.

THE UNDERGROUND WATER TABLE WELLS WHICH ARE LISTED AS POTENTIAL TRAPSETS (SEE 4.1) ARE IN THE MARGINAL (DEEP) ZONE, WHICH HAS NO SIGNIFICANT IMPACT ON THE AREA.

SAMMIS ST.

RUTHERFORD ST.

FIFTY ACRE RD.

WOODS

FENCE

DITCH
FILL AREA

ABANDONED
SOCCER
FIELDS

5-8000000 SAND &
GRAVEL + RECYCLED
DEMOLITION MATERIALS

GATE

SEWER + TRAIL
DITCHES - EXPANDED
ON ALL FACE

5-8000000 SAND &
GRAVEL + RECYCLED
DEMOLITION MATERIALS

WINDY HOLLOW RD.

N

SO. 1470' 1471' 1472' 1473'

152042

0.3"

AVENUE (N.T. AVE)

Land Use:

Identify on topo map/sketch immediate area

1. Residential
type: single family residences *YES*
apartments/condominiums
2. Agricultural
type: truck farming *NO*
dairy farming
livestock
3. Commercial/Industrial *YES*
type: *CONCRETE INDUSTRIES (LA - WOODRUFF ADJACENT)*
SAFETY INDUSTRIES (LA - WOODRUFF ADJACENT)
4. Open Space
parks
playgrounds
ballfields
5. Undeveloped
6. Sensitive Targets
schools - *YES - O.S.I.A.*
hospitals
churches
7. Specific targets identified during inspection
8. Complicating factors *BRICKWORKS ADJACENT*
(SEE SITE SKETCH)
railyards
oil depots
power stations
9. Indicated location where a change of landuse is expected.
What is the planned future use? *NONE*

Site Name South Mantclair Ave. & J.

Site No. 152042

2. Toxicity - Contaminants of Concern

Table 2-2. Waste Compounds: Quantities and Toxicity

Waste	Quantity (Tons)	Individual Compounds	CAS Number	Quantity (Tons)	Toxicity Rating
Mixed		Vinyl chloride	75-01-4		4
Municipal		Methylene chloride	75-09-2		3
STP Sludge		1,1-Dichloroethane	75-34-3		2
		1,2-Dichloroethane	107-06-2		unknown
		Chloroform	67-66-3		4
		Dichloropropane	78-87-5		
		Trichloroethylene	79-01-6		3
		Tetrachloroethylene	127-18-4		3
		cis-Dichloroethylene	156-64-2		1
		1,1,1-Trichloroethane	71-55-6		2

Table 2-3. Chemical/Physical Properties

Most Toxic Compounds	Persistence Value F	Solubility ppm @ 20 C	Vap. Press. (mm Hg) @ 25 C	Soil Partit. Coefficient
Vinyl chloride		1100	2600	
Chloroform		9300	160	
Trichloroethylene		1100	74	
Tetrachloroethylene		200	15.8	
Methylene chloride		20000	380	

3. Onsite Contact

3.1 Target Populations

Estimate how many people use the site and for how long (average hours per day). Assistance is provide in Table 3-1.

<u>Site Use</u>	<u>Number of Persons</u>	<u>Avg. Hours per Day</u>
EQUIPMENT OPERATORS + TRUCK DRIVERS	~5	8
KIDS ON DIRTBIKES + OTHERS	15	2

3.2 Probability of Contact - Onsite

Describe evidence of site usage by people (i.e., paths and trails, play areas, soda cans, shotgun shell, etc.)

DIRTBIKE TRAILS, OLD SOCCER PLAYING FIELDS.

1) Observed Incident

If there is a confirmed incident, score 1 and document with date, location and pertinent details
If none, score 0

0

2) Estimate Probability of Contact

Accessibility

Describe barriers of controls which limit site access to humans

IN FENCE AROUND SITE IS BROKEN DOWN
SEVERAL PLACES

Assign value 0, 1, 2 or 3 which corresponds with similar description in Table 3-1, Accessibility Values for Direct Contact.

3

Containment

Identify conditions observed during this site inspection (check column A) and/or those of others (Check column B).

	A	B
Some odor on site	<input type="checkbox"/>	<input type="checkbox"/>
Strong odors on site	<input type="checkbox"/>	<input type="checkbox"/>
Exposed patches or piles of solid waste	<input checked="" type="checkbox"/> (MUNICIPAL SLUDGE ONLY)	<input type="checkbox"/>
Open creeks or <u>drainage ditches on site</u> or emerging from site	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Soil stained by liquid (area greater than 10m ²)	<input type="checkbox"/>	<input type="checkbox"/>
Ponded or saturated areas of liquid waste	<input type="checkbox"/>	<input type="checkbox"/>
Discolored surface water or drainage ditches	<input type="checkbox"/>	<input type="checkbox"/>
Areas of stressed vegetation (or absent vegetation)	<input type="checkbox"/>	<input type="checkbox"/>
For containers:		
Containers sealed and in sound condition, protected from deterioration by weather	<input type="checkbox"/>	<input type="checkbox"/>
Containers sealed and sound, no protection	<input type="checkbox"/>	<input type="checkbox"/>
Containers deteriorated, no evidence of leakage or liquid contents	<input type="checkbox"/>	<input type="checkbox"/>
Containers leaking or liquid visible	<input type="checkbox"/>	<input type="checkbox"/>
For landfills:		
Lined and capped with sound, impermeable materials; adequate leachate collection system	<input type="checkbox"/>	<input type="checkbox"/>
Lined and capped with sound, impermeable materials; inadequate or no leachate collection system	<input type="checkbox"/>	<input type="checkbox"/>
Lined but poorly capped and no leachate collection; likelihood of overflow or seepage	<input type="checkbox"/>	<input type="checkbox"/>
Unlined, no evidence of seepage	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Observed seepage	<input type="checkbox"/>	<input type="checkbox"/>

From table 3-3, Containment Values for Direct Contact assign highest containment score of conditions identified.

MUNICIPAL
STP
SLUDGE 3

Adjacent Population

Estimate the population within 1 mile of the site. Assign appropriate score 0, 1, 2 or 3 from Table 3-3, Population Values for Onsite Contact.

3

3.3 Exposure Estimate: Onsite

Record the highest surface soil concentration measured of the contaminant of concern (soil-contact)

NO DATA ug/g

Onsite Contact - Comments

Provide additional comments specific to onsite contact and indicate if the comments should become stored information.

4. Groundwater and Gas Migration

Identify the aquifer(s) beneath the site either from hydro-geo data or well depths in the area.

Aquifer Designation	Approx. Depth	Distance from Site	Groundwater Wells Direction	Depth	Contaminated
GLACIAL	90-125'	500-152 meters	SOUTH	?	YES
GLACIAL	27-37 meters	300-0914 meters	NORTH	133'	YES
MAGOTHY	300-700'	1300 meters	EAST	40.5 meters	NO
"	" 90-213 meters	7200 meters	WEST		NO

4.1 Target Populations

Identify target groups by common use (or exposure) and/or common location with respect to the site. In addition identify populations with those groupings with documented contamination. Each aquifer which serves as a source of drinking water is considered a separate group. Locate groups on land use maps.

Group	Common Use or Exposure	Direction from Site	Distance from Site
-------	------------------------	---------------------	--------------------

Group	Number of Persons Potentially Affected		Number of Persons Affected	
	24 hour	day combined	24 hour	day combined

4.2 Probability of Transport (Release)

4.2.1 Observed Release

If a groundwater release has been measured, score 1, and skip 4.2.2.

If none, score 0

4.2.2 No Observed Release

Do area wells exhibit taste and odor?



1) Aquifer proximity

The vertical distance from the lowest point of the hazardous substances to the highest seasonal level of the saturated zone of the aquifer of concern is >50 feet.

Assign score 0, 1, 2, 3 according to Table 4.2, Depth to Aquifer

2) Net Precipitation

The net precipitation for the region is 16 inches.

Assign score 0, 1, 2, 3 according to Table 4-3, Net Precipitation.

3) Permeability

The geologic material beneath the site is primarily SAND/GRAVEL, with a hydraulic conductivity of >10⁻³ cm/sec.

Assign score 0, 1, 2, 3 according to Table 4-4, Permeability of Geologic Materials.

4) Leaching Value

The highest leaching index identified in Table 2-4 is _____.

Assign score 0, 1, 2, 3 according to Table 4-5 Leaching Potential.

5) Containment

If all the hazardous substances at the facility are underlain by an essentially non-permeable surface (natural or artificial) or if there is no groundwater in the vicinity score 0.

If not identify conditions observed during this site inspection (check column A) and/or those of others (check column B).

A. Surface Impoundment

N/A

Sound run-on diversion structure, essentially non-permeable liner (natural or artificial) compatible with the waste and adequate leachate collection system.

Essentially non-permeable compatible liner with no leachate collection system; or inadequate freeboard.

Potentially unsound run-on diversion structure; or moderately permeable compatible liner. ^A

Unsound run-on diversion structure, no liner, or incompatible liner.

B. Containers N/A

Containers sealed and in sound condition, adequate liner, and adequate leachate collection system.

Containers sealed and in sound condition, no liner or moderately permeable liner.

Containers leaking, moderately permeable liner.

Containers leaking and no liner or incompatible liner.

C. Piles N/A

Piles uncovered and waste stabilized; or piles covered waste unstabilized, and essentially non-permeable liner.

Piles uncovered, waste unstabilized, moderately permeable liner, and leachate collection system.

Piles uncovered, waste unstabilized, moderately permeable liner, and no leachate collection systems.

Piles uncovered, waste unstabilized, and no liner.

D. Landfill

Essentially non-permeable liner, liner compatible with waste, and adequate leachate collection.

Essentially non-permeable compatible liner, no leachate collection system, and landfill surface precludes ponding.

Moderately permeable, compatible liner, and landfill surface precludes ponding.

No liner or incompatible liner; moderately permeable compatible liner; landfill surface encourages ponding; no run-on control.

From Table 4-6, Containment Values for Groundwater Transport, assign highest score of conditions identified.

SO. FRONT CLARK AVE. (L.F. - SOUTH TOWN)
 PRIVATE WELL CONTAM. - PROSPECT AVE. (~500 FT W)
 SAMPLES → 8/14/1980

MARKS RESID.
 (44 PROSPECT AVE.)

RAIBACH RESID.
 (45 PROSPECT AVE.)

VINYL CHLORIDE	12.0 PPB	5.0 PPB
METHYLENE CHLORIDE	21	9
DICHLOROETHANE	3	2
CHLOROFORM	2	2
1,2 DICHLOROETHANE	2	2
TRICHLOROETHANE	< 1	< 1
DICHLOROPROPANE	2	1
TRICHLOROETHYLENE	12	3
PERODIBROMOETHANE	1	< 1
BROMOFORM	< 1	< 1
TETRACHLOROETHYLENE	17	7
1,1-DICHLOROETHYLENE	36	14
1,2-DICHLOROETHYLENE	< 1	1
BROMODICHLOROETHANE	< 1	< 1

TEST WELL # 44753 (~100 FT NORTH OF SITE)
 133 DEPT

TRICHLOROETHANE - 17 PPB

4.3 Exposure Estimate: Wells

1) Observed Release

If groundwater contamination has been measured in wells, tabulate the data below

<u>Aquifer</u>	<u>Contaminant</u>	<u>Concentration (ppm)</u>	<u>Distance From Waste</u>
SEE ATTACHED SHEET → 500' SOUTH			

4.4 Exposure Estimate: Basements

If contamination has been measured in basement air, water, or sediment, tabulate the data

<u>Contaminant</u>	<u>Concentration</u>	<u>Distance from Source</u>
NONE MEASURED		

Identify area homes which could experience basement seepage. Also record groundwater contamination measured in the vicinity.

<u>Area</u>	<u>Number of Houses</u>	<u>Distance (m) from Waste</u>	<u>Groundwater Contamination</u>	<u>Air Concentration</u>
NONE - SEE COMMENTS				

Groundwater and Gas Migration - Comments

Provide additional comments specific to Groundwater and Gas Migration and indicate if the comments should become stored information.

SEE PAGE 15 UNLIKELY. GROUNDWATER FLOW IN VICINITY IS TO THE WEST, DUE TO DEPTH TO GROUNDWATER (~90'), BASEMENT VICINITY IS TO THE WEST.

5. Air Transport

N/A - SEE COMMENTS

5.1 Target Populations

Identify the general population distribution within 4 miles of the site, as well as population groups within 1.5 miles that may be chronically exposed to air emissions from the site.

Population within a four-mile radius. Record as in HRS, Section 5.3.

Population within 1.5 miles (2400m):

Group: Residents
 Distance from Site (meters): 200-500
 Direction (N, NE, E, SE, etc.): N

Group: Spent Metal Air Residents
 Number of Persons: 30
 Exposure Resident: /
 Exposure Non-Res.:
 Exposure Avg. Hrs. Per Day: 24

Wind rose:

If a wind rose is available for the site, indicate the prevailing wind direction SW.

5.2 Probability of Contact or Transport - Vapor

5.2.1 Observed Release

If release of air contaminants (other than dust) has been measured on or near the site, score 1 and skip to 5.3. If none score 0

0

5.2.2 Estimate Probability of Release

Containment

Identify conditions observed during this site inspection (check column A) and/or those of others (check column B)

- Some odor on site A B
- Strong odors on site A B
- Exposed patches or piles of solid waste A B
- Odor problems observed offsite A B
- Soil stained by liquid (area greater than 10m²) A B
- Ponded or saturated areas of liquid waste A B
- For containers:
 - Containers sealed and in sound condition, protected from deterioration by weather A B
 - Containers sealed and sound, no protection A B
 - Containers deteriorated, no evidence of leakage or liquid contents A B
 - Containers leaking or liquid visible A B

For landfills:

Lined and capped with sound, impermeable materials;
adequate leachate collection system

Lined and capped with sound, impermeable materials;
inadequate or no leachate collection system

Lined but poorly capped and no leachate collection;
likelihood of overflow or seepage

Observed seepage

A	B
---	---
---	---
---	---
---	---
X	---

From table 5-1 assign highest containment score of conditions identified.

Volatility

From Table 5-2, Volatility Values for Air Route, assign score 0, 1, 2, 3 based on the evaporation potential of the contaminant of concern (soil-vapor)

Reactivity and incompatibility

Assign scores 0, 1, 2 or 3 for reactivity and incompatibility and enter higher score.

5.3 Exposure Estimate - Vapor

5.3.1 If a vapor or gas release has been documented tabulate the data.

<u>Contaminant</u>	<u>Concentration</u>	<u>Distance from Source</u>
--------------------	----------------------	-----------------------------

None

5.4 Probability of Contact or Transport - Particulate Matter

1) Observed Release

If a particulate release has been documented score 1 and skip 2).
If none, score 0

2) Estimated Probability of Transport

Containment

Identify conditions observed during this site inspection (check column A) and/or those of others (check Column B)

A B

Soil stained by liquid (area greater than 10m²)

Exposed patches or piles of solid waste

For containers:

Containers sealed and in sound condition,

Containers deteriorated, no evidence of leakage

Containers leaking or contents visible

For landfills:

Lined and capped; no evidence of leaching or seepage

Inadequate drainage or leachate collection; likelihood of overflow or seepage

Observed Seepage

From Table 5-5, Containment Values for Particulate Matter assign highest score of conditions identified

3

Disturbance

Identify the condition observed during this site inspection (column A) and/or those of others (column B)

Site is completely enclosed by a secure fence; access controlled.

Access uncontrolled or easy; no evidence of use.

Easy access; evidence of use. *... fence (broken)*

Evidence that solid waste is disturbed.

Assign score 0, 1, 2 or 3 according to Table 5-4, Soil Disturbance Criteria.

2

Precipitation

Enter the mean annual number of days with snow cover or more than 0.01 inches of precipitation.

W = 167 days

5.5 Exposure Estimate: Particulate Matter

If a release has been documented complete 5.5.1
If none, complete 5.5.2

5.5.1 Concentration-measured

<u>Contaminant</u>	<u>Concentration (ug/m³)</u>	<u>Distance from Source</u>
--------------------	---	-----------------------------

5.5.2 No measured air containment concentrations

Estimate the sum of the areas of potentially contaminated exposed surfaces

A = 50 m²

Assign concentration of suspended particulate matter according to Table 5-7 Source Concentration of Suspended Particulate Matter

P = 1.0 x 10⁻⁴ g/m³

Air Transport - Comments

Provide additional comments specific to Air Transport and indicate if the comments should become stored information.

BECAUSE THIS SITE IS A CLOSED, COVERED LANDFILL WITH NO EVIDENCE + LITTLE LIKELIHOOD OF ONGOING SEEPAGE (DEPTH TO GROUNDWATER ~ 41'); AIR TRANSPORT SHOULD BE NEGLIGIBLE

6. Surface Water Runoff

6.1 Target Populations

6.1.1 Surface Water

Identify surface water bodies believed to receive surface runoff or to be fed by groundwater that may be contaminated by the facility

Body of Water	Known Contam.?	Distance From Site	Uses & Persons Affected			
			Drinking (Persons)	Swimming (Persons)	Fishing (Persons)	Irrigation (Usage, gal/day)
LAKE ISLAND SOUND	NO	25 Miles	NO(0)	YES(5)	YES(5)	NO(0)

6.1.2 Yards, Playgrounds and Agriculture

Identify individual homes, playgrounds, or groups of residences which might be contaminated by surface runoff directly, flooded basements, or storm sewer back up.

Targets		Distance from Site	Route of Contamination				
Parks Playgrounds	Residences (Number)		Known Yard Contam	Basement Flooding	Known Contam	Storm Sewer	Known Contam

NOAC

Identify gardens or agricultural areas down-slope from the site which may receive significant surface runoff.

Livestock Farm	GARDENS		Distance from Site	Known Contamination	Area of Potentially Affected Land
	Commercial	Private			

NOAC

6.2 Probability of Transport

6.2.1 Observed Transport

If a surface runoff release has been measured score 1, and skip 6.2.2
If none, score 0

6.2.2.1 Drainage Ditches

If there are no topographical features that serve as channels for flow of runoff, score 0.

If such features exist and if contaminants have been measured in soil sediment or water, score 1.

If such features exist but contaminants have not been measured in soil sediment or water score 0 and complete Containment and Rainfall.

0

0

6.2.2.2 Storm Sewers

If there are no storm sewers within 1/4 mile (400m) of the site, score 0.

0

If contaminants from the landfill have been detected in a storm sewer within 1/4 mile (400m) of the site (or directly fed by a ditch from the site) score 1.

If there are storm sewers within 1/4 mile (400m) of the site, but contaminants have not been found, score 0 and complete Containment, Rainfall and Route Characteristics.

6.2.2.3 Overland Flow

If contaminants have been measured in soil or surface water offsite, score 1 and skip to 6.3.

If contaminants have not been measured in soil or surface water offsite, score 0 and complete Containment, Rainfall, Route Characteristics, and Distance to Target.

Containment

Identify conditions observed during this site inspection (check column A) and/or those of others (check column B).

A. Surface Impoundment

Sound diking or diversion structure, adequate freeboard, and no erosion evident.

A B

Sound diking or diversion structures, but inadequate freeboard.

A B

Diking not leaking, but potentially unsound.

A B

Diking unsound, leaking, or in danger of collapse.

A B

B. Containers

Containers sealed, in sound condition, and surrounded by sound diversion or containment system.

A B

Containers sealed in sound condition, but not surrounded by sound diversion or containment system.

A B

Containers leaking and diversion or containment structures potentially unsound.

A B

Containers leaking, and no diversion or containment structures or diversion structures leaking or in danger or collapse.

A B

C. Waste Piles

Piles are covered and surrounded by sound diversion or containment system.

A
 E

Piles covered, wastes unconsolidated, diversion or containment system not adequate.

Piles not covered, waste unconsolidated, and diversion or containment system potentially unsound.

Piles not covered, waste unconsolidated and no diversion or containment; or diversion system leaking or in danger of collapses.

D. Landfill

Landfill slope precludes runoff, landfill surround by sound diversion system, or landfill has adequate cover material.

Landfill not adequately covered and diversion system sound.

Landfill not covered and diversion system potentially unsound.

Landfill not covered and no diversion system present, or diversion system unsound.

From Table 6-1, Containment Values for Surface Water Runoff, assign highest score of conditions unidentified.

2

Rainfall

The one-year 24 hour rainfall for the area is 27 inches.

Assign score 0, 1, 2, 3 according to Table 6-2, Rainfall Values.

1

Route Characteristics

Facility slope:

The average slope on site 1-2 %.

Intervening terrain:

The average slope between the facility and the nearest downhill surface water is 1-2 %.

Assign score 0, 1, 2, 3 from Table 6-3, Values for Facility Slope and Intervening Terrain.

0

Distance to Target

Estimate the distance for the hazardous substance to the target(s) identified in 6.1 Target Populations including surface water bodies, residential areas, parks, playground, and agricultural areas.

From Table 6-4, Values for Distance to Target assign highest score 0, 1, 2, 3 corresponding to the least distance identified.

0

6.3 Estimated Soil Loss

The normal annual rainfall (R) is 46 inches.

2

The average slope (S) of the facility is 12 %.
(same as in 6.2.2.3)

The area of exposed contaminants on site (A) is 50 m².
(same as in 5.5)

The length of uphill land draining across the site (L) is 10 m.

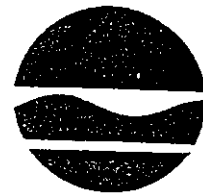
Surface Water Runoff- Comments

Provide additional comments specific to surface water runoff and indicate if the comments should become stored information.

BECAUSE OF GENTLE SLOPE, HIGH SOIL PERMEABILITY, SURFACE WATER RUNOFF IS INSIGNIFICANT AS A ROUTE OF EXPOSURE, -STORE

REFERENCE A-6

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



Thomas C. Jorling
Commissioner

April 18, 1988

Mr. Neal L. Spevack
Smithtown Concrete Products Corp.
Jericho Turnpike
Smithtown, NY 11787

Dear Mr. Spevack:

Re: South Montclair Avenue Landfill, ID #152042

The New York State Department of Environmental Conservation (DEC), under the Environmental Conservation Law, is planning a Phase II investigation of the South Montclair Avenue Landfill. As part of the investigation, we expect to locate monitoring well MW-1, as indicated on the enclosed sketch. Our Region 1 office has determined that you are the owner of the land on which this well is to be located. This is a request that you allow the DEC access to the locations for constructing the monitoring well.

The Phase II investigation involves the drilling of a hole in the ground of approximately 50 feet depth, then constructing the monitoring well. Once completed, the monitoring well will be below ground, and the only visible portion will be a 4-inch diameter iron pipe sticking up 3-4 feet from the ground. There will also be some concrete grout around the stem of the pipe to act as a seal against run-off water.

In order to drill the hole and construct the well, a truck-mounted drill rig and other accessories, as a water tank, grout mixing container and drilling equipment will have to be brought to the location, and generally a mess will be made. However, we clean up the area to the greatest extent possible at the end of each day and at completion of the well construction; we expect that six days may be needed for this project. Furthermore, once our investigation is completed, DEC will remove the well and restore the area to its original state.

I would appreciate your cooperation in this matter. Please contact Lawrence Alden or me at (518) 457-0639 if you have any questions.

Sincerely,

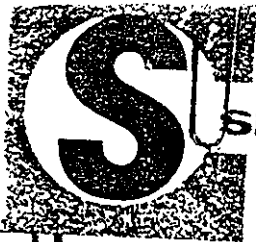
A handwritten signature in cursive script that reads "Marsden Chen".

Marsden Chen
Bureau of Hazardous Site Control
Division of Hazardous Waste Remediation

Enclosure

bcc: M. Chen
L. Alden
File

LA/ch



SMITHTOWN CONCRETE PRODUCTS CORPORATION

P.O. Box 612
Smithtown, New York 11787
(516) 265-1815

RECEIVED

APR 29 1988

April 26, 1988

N.Y.S. Dept. of Environmental Conservation
50 Wolf Road
Albany, New York 12233
Attn: Margaret O'Brien, Marden Chen

Re: S. Montclair Ave.
Landfill, ID #152042
Phase II investigation

Dear Margaret:

As per our phone conversation this date I understand that you need to install a monitoring well on the front lawn portion of our property approximately midway between Arthur Drive and Montclair Avenue. As stated in your letter of April 18, this portion of the property would be restored to its original state after the investigation has been completed. This is satisfactory to us. If there is any further information you may need, please do not hesitate to call.

Very truly yours,
SMITHTOWN CONCRETE PRODUCTS CORP.

Neal L. Spevack

Neal L. Spevack, vice pres.

Plant: JERICHO TURNPIKE AND ARTHUR DRIVE, SMITHTOWN, NEW YORK 11787

Manufacturers of: CONCRETE BLOCK • PROFILE BLOCK • SPLIT BLOCK • DECORATIVE BLOCK • CONCRETE BRICK • FOUNDER'S BRICK

Member: National Concrete Masonry Association / New York State Concrete Masonry Association

REFERENCE A-7

Source- NYSDEC, Albany: Division of Hazardous Waste Remediation
NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF HAZARDOUS WASTE REMEDIATION
INACTIVE HAZARDOUS WASTE DISPOSAL REPORT

CLASSIFICATION CODE: 2a REGION: 1 SITE CODE: 152042
EPA ID:

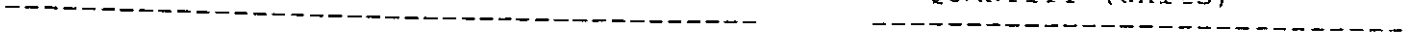
NAME OF SITE : South Montclair Avenue Landfill
STREET ADDRESS: South Montclair Avenue
TOWN/CITY: COUNTY: ZIP:
Smithtown Suffolk 11780

SITE TYPE: Open Dump- Structure- Lagoon- Landfill-X Treatment Pond-
ESTIMATED SIZE: 20 Acres

SITE OWNER/OPERATOR INFORMATION:
CURRENT OWNER NAME....: Town of Smithtown
CURRENT OWNER ADDRESS.: 99 West Main St., Smithtown, NY
OWNER(S) DURING USE....: Town of Smithtown
OPERATOR DURING USE....: Town of Smithtown
OPERATOR ADDRESS.....: 99 West Main Street, Smithtown, NY
PERIOD ASSOCIATED WITH HAZARDOUS WASTE: From To

SITE DESCRIPTION:
Active municipal landfill. Phase I investigation completed in June of 1985. Phase II investigation is planned.

HAZARDOUS WASTE DISPOSED: Confirmed- Suspected-X
 TYPE QUANTITY (units)



ANALYTICAL DATA AVAILABLE:

Air- Surface Water- Groundwater- Soil- Sediment- None-

CONTRAVENTION OF STANDARDS:

Groundwater- Drinking Water- Surface Water- Air-

LEGAL ACTION:

TYPE... State- Federal-
 STATUS: Negotiation in Progress- Order Signed-

REMEDIAL ACTION:

Proposed- Under design- In Progress- Completed-
 NATURE OF ACTION:

GEOTECHNICAL INFORMATION:

SOIL TYPE:
 GROUNDWATER DEPTH:

ASSESSMENT OF ENVIRONMENTAL PROBLEMS:

Potential for several pathways of contaminant migration

ASSESSMENT OF HEALTH PROBLEMS:

Medium	Contaminants Available	Migration Potential	Potentially Exposed Population	Need for Investigation
Air	Likely	Highly Likely	Yes	High
Surface Soil	Unlikely	Highly Likely	Yes	High
Groundwater	Identified	Highly Likely	Yes	High
Surface Water	Likely	Unlikely	No	Low

Health Department Site Inspection Date : 1/85

MUNICIPAL WASTE ID: 52-D-13#

ICS ID:

SPEDES ID:

APPENDIX B

Field Procedures

Section 1 - Split-Spoon Sampling and Monitoring Well Installation

Section 2 - Monitoring Well Sampling

Section 1 - Split-Spoon Sampling and Monitoring Well Installation

METHODS OF INVESTIGATION

The investigation consisted of a detailed subsurface study directed at identifying the nature and extent of any ground-water and soil contaminated at the Site.

The investigation was composed of a multi-task study as follows:

- o Soil sampling
- o Monitoring well installation
- o Ground-water sampling

All monitoring wells were installed by Marine Pollution Control, Inc. of Patchogue, New York under the supervision of a hydrogeologist from Roux Associates, Inc. A truck mounted hollow stem auger rig was used to install the wells. Split-spoon core barrel samplers were used to collect samples continuously (every five feet) from land surface to the bottom of the boring.

The split-spoon samples were collected ahead of the auger flights in undisturbed sediments using a standard 140 lb. hammer with a 30 inch fall. The number of blows required to drive the sampler each six inches was noted and logged in the field book.

The split-spoon sampler was opened on clear plastic sheeting and samples were immediately placed in glass mason jars by a hydrogeologist and logged in detail, paying particular attention to the presence of contamination (odor, texture, staining, etc.). Detailed geologic logs are given in Appendix C. In addition to logging the split-spoon samples, the soil sample was field screened using an organic vapor meter (OVM - Model 580A) and recorded.

As part of the health and safety plan ambient air quality in the breathing zone was monitored throughout the drilling program using a portable organic vapor meter (OVM). All readings were recorded in the site field book.

After a sample was collected, the bore hole was advanced five feet with power driven, 6 1/4" diameter, hollow stem auger flight and the next sample collected. To prevent dilution of any contaminants that might be present, water was not normally used in the hole during drilling. Water was only used in the hole when running sand was encountered and had to be washed out so that the well could be set at the desired depth.

Cross-contamination of sediments within the boring was minimized as samples were collected ahead of the auger flights. In addition, several split-spoon samplers were used and each sampler used was decontaminated by the means of a steam cleaner.

In addition, clean plastic sheeting was spread out on the ground in the work area and all drilling equipment including augers, rods, and any other tools and equipment used for drilling was placed on the sheeting.

To prevent cross-contamination between boreholes all appropriate drilling equipment, including the drilling rig was steam cleaned before moving to the next well location.

Monitoring Well Installation

Upon completion of the soil boring a 10 foot long, 2-inch diameter, Schedule 40 PVC (Polyvinyl-chloride), 0.020 slotted section and appropriate length of blank PVC riser pipe were installed in the annular space of the hollow stem auger. Prior to installation of the well, all well materials (screen, riser, and caps) were steam cleaned, and all personnel handling the materials wore clean rubber gloves to minimize cross contamination. A suitable sized graded sand (No. 1) was then used to pack the annular space at least 2-3 feet above the screen zone. Once the sand pack was in place a Bentonite slurry mixture was tremmied down to the top of the sand pack. The Bentonite slurry mixture is as follows: 4 gallons of water mixed rapidly with 5 pounds of pure bentonite.

A two-foot thick bentonite pellet seal was emplaced following the bentonite slurry. A continuous flow of water was poured slowly onto the pellets for 60 minutes to allow for hydration.

The remaining open portion of the annulus was filled with a bentonite-based grout slurry, which was pumped into the annulus through a tremie pipe.

Pumping of the grout continued to within three feet of land surface. A protective 6-inch steel casing with a locking cover was cemented into place over the PVC casing. The steel casings extend approximately three feet below land surface and stick up approximately two feet above land surface.

Section 2 - Monitoring Well Sampling

Monitoring Well Sampling

Monitoring wells MW-1 through MW-7 were sampled on November 11, 1988. Prior to sampling, new plastic sheeting was placed on the ground surrounding each well to ensure that contaminants would not be introduced into the well during purging or sampling. Water level measurements were recorded to the nearest hundredth of a foot (Table B-1). MW-2 and MW-3 were sampled immediately following development.

Prior to purging, the seal-of-custody on the laboratory-provided, pre-labeled sample bottles was cut to facilitate sampling. The field parameters, conductivity, pH, and temperature were measured after the first bail and after approximately each gallon was evacuated (Table B-2). Conductivity, pH, and temperature stabilized after 2 to 3 gallons were evacuated from each well. The wells were purged using 1-liter teflon bailers, which were decontaminated according to the NYSDEC protocols, prior to arrival at the Site. Immediately prior to sample collection, three well volumes were removed from each well using the sampling (stainless steel) bailers. All sampling personnel wore a clean set of disposable vinyl gloves for each well.

The following sample bottles were collected for each well:

	<u>Preservative</u>
2 - 40 ml vials	(HCL)
3 - glass liter	-
1 - 1000 ml plastic	(HNO ₃)
1 - qt. cubie	(NaOH)

Table 8-1. South Montclair Avenue Landfill Purging Data, November 11, 1988

Well No.	Depth to Water (ft)	Depth of Well (ft)	Length of Water Column (ft)	Volume of Water in Well (gal)	Total Volume Purged (gal)	Borehole Volume (gal)	Well Volumes Purged	Borehole Volumes Purged
MW-1	42.46	49	6.54	1.1	60	26.7	54.55	2.25
MW-2	45.90	52	6.10	1.04	265	24.88	254.8	10.65
MW-3	57.08	64	6.92	1.18	92	28.22	78.0	3.26
MW-4	54.80	62	7.50	1.28	75	30.58	58.6	2.45
MW-5	68.92	75	6.08	1.04	72	24.79	69.23	2.90
MW-6	56.28	63	6.72	1.14	57	27.40	50.0	2.08
MW-7	56.20	62	5.80	0.99	80	23.65	80.8	3.38

Table B-2. Field Parameters Measured on November 11, 1988 During Sampling of Monitoring Wells, South Montclair Landfill, NY

Well Number	Field Parameters	30	35	40	45	50	55	60	65	70	75	
		Volume Purged (gallons)										
MW-1	pH	6.70	6.76	6.71	6.75	6.74	6.79	6.82				
	Conductivity	540	560	530	520	500	500	500				
	Temperature	12	12	12	12	12	12	12				
MW-2	pH	Sampled after development; purged 265 gallons										
MW-3	pH	Sampled after development; purged 92 gallons										
MW-4	pH	5.32	5.43	5.97	5.95	5.94	5.95	5.96	5.89	5.91		
	Conductivity	1726	1713	1620	1620	1650	1610	1630	1627	1630		
	Temperature	16	16	16	16	16	16	16	16	16		
MW-5	pH	Sampled after development; purged 92 gallons										
	Conductivity	Sampled after development; purged 92 gallons										
	Temperature	Sampled after development; purged 92 gallons										
MW-6	pH	6.60	6.80	6.87	6.87	6.79	6.83	6.62	6.62	6.63		
	Conductivity	2350	2360	2360	2360	2360	2350	1360	1310	1290		
	Temperature	17	17	17	17	17	17	13	13	13		
MW-7	pH	5.73	5.93	5.99	5.92	5.86	5.99	5.93	5.91	5.99		
	Conductivity	1610	1630	1600	1556	1597	1565	1507	1503	1570		
	Temperature	16	16	16	16	16	16	16	16	16		

A duplicate sample (labeled MW-8) was collected for MW-7. Field blanks were collected prior to sampling. A trip blank was analyzed for volatile organics.

All samples were placed on ice, and hand delivered to H₂M Laboratory on the day of collection. Chain-of-custody documentation is provided in Appendix D. All disposable sampling equipment (gloves, polypropylene rope) was properly discarded upon completion of sampling.

APPENDIX C

Geologic Logs and Well Construction Diagrams

GEOLOGIC LOG

Study No. 07704 Date 4/11/89
 Project South Monclair Avenue L.F.
 Client Gibbs & Hill
 Page 1 of 2
 Logged By J. Sheehan
 Well No. MW - 1
 Loc. _____
 M.P. Elevation 88.48'
 Drilling Started 11/9/88 Ended 11/9/88
 Driller Marine Pollution Control
 Type Of Rig Auger Rig

WELL DATA
 Hole Diam. (in.) 6.25
 Final Depth (ft.) 49
 Casing Diam. (in.) 2.0
 Casing Length (ft.) 39
 Screen Setting (ft.) 39-49
 Screen Slot & Type .020 PVC
 Well Status Monitoring well

G W READINGS(1)		
Date	DTW MP(2)	Elev. W.T.

SAMPLER
 Type split spoon
 Hammer 140 lb.
 Fall 30 in.

DEVELOPMENT

OVM	SAMPLE			Strata Change & Gen. Desc.	Depth (ft.)	SAMPLE DESCRIPTION
	No.	Rec.	Depth (ft.)			
			0'-2'		0	Brown fine and medium SAND, some gravel.
					5	Did not take split spoon sample.
0.2	1.0		10'-12'	3/7/6/10	10	Brown fine SAND, and silt with some gravel and coarse SAND.
0.2	1.4		15'-17'	3/9/2/2	15	Brown silty SAND with some coarse SAND, and GRAVEL.
0.6	1.5		20'-22'	4/7/10/20	20	0-1.0'; Brown fine sand 1.0'-1.5'; Dark brown fine sand some SILT and coarse gravel.
		0	25'-27'	2/6/5/5	25	No recovery.
0.0	1.6		30'-32'	4/7/11/15	30	Light brown fine & medium SAND, well sorted.
0.2	1.0		35'-37'	6/8/10/12	35	Brown fine SAND. Some iron staining. Well sorted.

REMARKS: (1) in feet relative to a common datum
 (2) from top of PVC casing

Study No. <u>07704</u> Date <u>4/11/89</u> Project <u>South Montclair Avenue L.F.</u> Client <u>Gibbs & Hill</u> Page <u>2</u> of <u>2</u> Logged By <u>John C. Sheehan</u> Well No. <u>MW - 1</u> Loc. _____ M.P. Elevation <u>88.48'</u> Drilling Started <u>11/9/88</u> Ended <u>11/9/88</u> Driller <u>Marine Pollution Control</u> Type Of Rig <u>Auger Rig</u>	WELL DATA Hole Diam. (in.) <u>6.25</u> Final Depth (ft.) <u>49</u> Casing Diam. (in.) <u>2.0</u> Casing Length (ft.) <u>39</u> Screen Setting (ft.) <u>39-49</u> Screen Slot & Type <u>.020 PVC</u> Well Status <u>Monitoring Well</u>	G W READINGS(1) Date DTW MP(2) Elev.W.T.
Type <u>split spoon</u> Hammer <u>140</u> lb. Fall <u>30</u> in.	DEVELOPMENT 	

OVM PPM	SAMPLE				Strata Change & Gen. Desc.	Depth (ft.)	SAMPLE DESCRIPTION
	No.	Rec.	Depth (ft.)	Blows / 6"			
		1.3	40'-42'	4/7/11/13		40	Light brown fine and medium sand with trace of coarse sand. Black stained oil layer.
							B.O.B = 52' Wit = 40'

REMARKS: (1) in feet relative to a common datum
 (2) from top of PVC casing

GEOLOGIC LOG

Study No. <u>07704</u> Date <u>4/11/89</u> Project <u>South Montclair Avenue L.F.</u> Client <u>Gibbs & Hill</u> Page <u>1</u> of <u>2</u> Logged By <u>John C. Sheehan</u> Well No. <u>MW - 2</u> Loc. _____	WELL DATA		G W READINGS(1)		
	Hole Diam. (in.) <u>6.25</u>	Final Depth (ft.) <u>52</u>	Date	DTW MP(2)	Elev. W.T.
	Casing Diam. (in.) <u>2.0</u>	Casing Length (ft.) <u>42</u>			
	Screen Setting (ft.) <u>42.0'-52.0</u>	Screen Slot & Type <u>.020 PVC</u>			
	Well Status <u>Monitoring Well</u>				

M.P. Elevation <u>92.44'</u> Drilling Started <u>10/26/88</u> Ended <u>10/26/88</u> Driller <u>Marine Pollution Control</u> Type Of Rig <u>Auger Rig</u>	SAMPLER	DEVELOPMENT
	Type <u>split spoon</u>	
	Hammer <u>140</u> lb.	
	Fall <u>30</u> in.	

OVM PPM	SAMPLE				Strata Change & Gen. Desc.	Depth (ft.)	SAMPLE DESCRIPTION
	No.	Rec.	Depth (ft.)	Blows / 6"			
0.0		1.0'	0-2	2/1/1/1		0	Brown fine medium SAND with some coarse sand and coarse GRAVEL.
0.0		1.7'	5'-7'	1/4/6/7		5	Brown fine and medium SAND with some ggravel and coarse sand. Wood in tip.
0.0		1.2'	10'-12'	3/3/4/6		10	Dark brown fine and medium sand. Some coarse gravel. Wood chips and garbage. Odor.
0.0		.9'	15'-17'	1/1/1/4		15	Gray stained fine and medium SAND with some gravel. Odor
0.0		.3'	20'-22'	4/3/7/7/		20	Gray fine and medium sand with some coarse sand. Odor.
0.0		1.1'	25'-27'	3/5/8/8		25	White and gray - white fine and medium sand. Some coarse sand layers of stained areas. Odor.
0.0		1.2'	30'-32'	2/6/7/7		30	White and gray - white fine sand well sorted. Dark stained areas odor.
0.0		1.4'	35'-37'	3/6/8/12		35	White and off white fine sand well sorted. Some area of dark staining light odor.

REMARKS: (1) in feet relative to a common datum
 (2) from top of PVC casing

GEOLOGIC LOG

Study No. <u>07704</u> Date <u>4/11/89</u> Project <u>South Montclair Avenue L.F.</u> Client <u>Gibbs & Hill</u> Page <u>2</u> of <u>2</u> Logged By <u>John C. Sheehan</u> Well No. <u>MW - 2</u> Loc. _____ M.P. Elevation <u>92.44</u> Drilling Started <u>10/26/88</u> Ended <u>10/26/88</u> Driller <u>Marine Pollution Control</u> Type Of Rig <u>Auger Rig</u>		WELL DATA		G W READINGS (1)		
		Hole Diam. (in.) <u>6.25</u>	Final Depth (ft.) <u>52</u>	Date	DTW MP(2)	Elev. W.T.
		Casing Diam. (in.) <u>2.0</u>	Casing Length (ft.) <u>42</u>			
		Screen Setting (ft.) <u>42-52</u>	Screen Slot & Type <u>.020 PVC</u>			
		Well Status <u>Monitoring Well</u>				
			SAMPLER	DEVELOPMENT		
			Type <u>split spoon</u>			
			Hammer <u>140</u> lb.			
			Fall <u>30</u> in.			

OVM DPTH	SAMPLE				Strata Change & Gen. Desc.	Depth (ft.)	SAMPLE DESCRIPTION
	No.	Rec.	Depth (ft.)	Blows / 6"			
0.0		1.5	40'-42'	3/5/9/12		40	White and off white fine and medium sand. Well sorted.
0.0		1.3	45'-47'	2/6/7/11		45	Grayish brown fine and medium SAND. Well sorted. Layer of iron stained moist. Slight odor.
0.0		0.6	50'-52'	3/5/9/12		50	Brown fine and medium SAND wet.
0.0		1.3	55'-57'	3/5/7/9		55	Brown fine and medium SAND, some coarse SAND. Wet.
						60	
							B.O.B. = 52'
							W - T = 43'

REMARKS: (1) in feet relative to a common datum
 (2) from top of PVC casing

GEOLOGIC LOG

Study No. 07704 Date 3/9/89
 Project South Montclair Avenue L.F.
 Client Gibbs & Hill
 Page 1 of 3
 Logged By John C. Sheehan
 Well No. MW - 3
 Loc. _____
 M.P. Elevation 102.78
 Drilling Started 10/24/88 Ended 10/25/88
 Driller Marine Pollution Control
 Type Of Rig Auger Rig

WELL DATA
 Hole Diam. (in.) 6.25
 Final Depth (ft.) 64
 Casing Diam. (in.) 2"
 Casing Length (ft.) 54
 Screen Setting (ft.) 54-64
 Screen Slot & Type .020 PVC
 Well Status Monitoring Well

G W READINGS(1)		
Date	DTW MP(2)	Elev. W.T.

SAMPLER
 Type split spoon
 Hammer 140 lb.
 Fall 30 in.

DEVELOPMENT

OVM ppm	SAMPLE			Strata Change & Gen. Desc.	Depth (ft.)	SAMPLE DESCRIPTION
	No.	Rec.	Depth (ft.)			
		1.7	0.0-0.2	2/2/3/5	0	0.0-0.7; Brown fine and medium sand. Fine coarse gravel. 0.7-1.2; Black stained fine and medium sand. 1.2-1.7'; Light brown fine and medium sand. Some staining.
		1.1	5.0'-7.0'	1/3/4/3/	5	Brown black fine and medium sand. Some coarse sand and trace gravel.
		1.1	10.0'-12.0'	2/2/8/10	10	Brown fine and medium sand some staining.
		1.7	15.0'-17.0'	2/2/5/7	15	0.0'-0.8'; White gray fine and medium sand with some coarse sand. 0.8'-1.7' Silty clay and sand. Some gravel, stained in areas.
		1.1	20.0'-22.0'	2/2/7/12	20	Brown fine and medium sand with some coarse sand. Some staining.
0.0		1.4'	25.0'-27.0'	1/5/8/7	25	White gray fine and medium sand with some coarse gravel some staining.
0.0		1.6	30.0-32.0'	2/7/13/13	30	White gray fine and medium sand, some coarse sand.

REMARKS: (1) in feet relative to a common datum
 (2) from top of PVC casing

GEOLOGIC LOG

Study No. <u>07704</u> Date <u>3/9/89</u> Project <u>South Montclair Avenue L.F.</u> Client <u>Gibbs & Hill</u> Page <u>2</u> of <u>3</u> Logged By <u>John C. Sheehan</u> Well No. <u>MW - 3</u> Loc. _____ M.P. Elevation <u>102.78</u> Drilling Started <u>10/24/88</u> Ended <u>10/25/88</u> Driller <u>Marine Pollution Control</u> Type Of Rig <u>Auger Rig</u>	<b style="text-align: center;">WELL DATA Hole Diam. (in.) <u>6.25</u> Final Depth (ft.) <u>64</u> Casing Diam. (in.) <u>2"</u> Casing Length (ft.) <u>54</u> Screen Setting (ft.) <u>54-64</u> Screen Slot & Type <u>.020 PVC</u> Well Status <u>Monitoring Well</u>	<b style="text-align: center;">G W READINGS(1) Date DTW MP(2) Elev. W.T.
<b style="text-align: center;">SAMPLER Type <u>split spoon</u> Hammer <u>140</u> lb. Fall <u>30</u> in.		<b style="text-align: center;">DEVELOPMENT

HNU	SAMPLE				Strata Change & Gen. Desc.	Depth (ft.)	SAMPLE DESCRIPTION
	No.	Rec.	Depth (ft.)	Blows / 6"			
0.0		1.5	35'-37'	3/6/9/11		35	White gray fine and medium sand some fine and medium gravel some staining.
0.0		1.1	40'-42'	4/5/8/12		40	White fine and medium sand with some coarse sand and gravel. Poorly sorted.
0.0		1.3	45'-47'	3/7/14/13		45	White fine and medium sand with some coarse sand and fine gravel.
0.0		1.6	50'-52'	4/8/12/16		50	White gray fine and medium sand.
0.0		1.2	55'-57'	4/7/9/14		55	Gray fine and medium sand some fine gravel. Wet.
0.0		.20	60'-62'	2/7/7/7		60	Brown fine and medium sand. Wet.

REMARKS: (1) in feet relative to a common datum
 (2) from top of PVC casing

Study No. <u>07704</u> Date <u>3/9/89</u> Project <u>South Montclair Avenue L.E.</u> Client <u>Gibbs & Hill</u> Page <u>3</u> of <u>3</u> Logged By <u>John C. Sheehan</u> Well No. <u>MW - 3</u> Loc. _____		WELL DATA			G W READINGS(1)		
		Hole Diam. (in.)	<u>6.25</u>	Date	DTW MP(2)	Elev. W.T.	
		Final Depth (ft.)	<u>64</u>				
		Casing Diam. (in.)	<u>2"</u>				
		Casing Length (ft.)	<u>54</u>				
		Screen Setting (ft.)	<u>54-64</u>				
		Screen Slot & Type	<u>.020 PVC</u>				
		Well Status	<u>Monitoring Well</u>				

M.P. Elevation <u>102.78</u> Drilling Started <u>10/24/88</u> Ended <u>10/25/88</u> Driller <u>Marine Pollution Control</u> Type Of Rig <u>Auger Rig</u>		SAMPLER		DEVELOPMENT	
		Type	<u>split spoon</u>		
		Hammer	<u>140 lb.</u>		
		Fall	<u>30 in.</u>		

HNU	SAMPLE				Strata Change & Gen. Desc.	Depth (ft.)	SAMPLE DESCRIPTION
	No.	Rec.	Depth (ft.)	Blows / 6"			
0.0		2.0	65'-62'	3/3/4/5		65	Brown fine to medium sand, some coarse sand and gravel.

REMARKS: (1) in feet relative to a common datum
 (2) from top of PVC casing

GEOLOGIC LOG

Study No. <u>07704</u> Date <u>4/11/89</u> Project <u>South Montclair Avenue L.F.</u> Client <u>Gibbs & Hill</u> Page <u>1</u> of <u>2</u> Logged By <u>John C. Sheehan</u> Well No. <u>MW - 4</u> Loc. _____ M.P. Elevation <u>100.34</u> Drilling Started <u>10/27/88</u> Ended <u>10/28/88</u> Driller <u>Marine Pollution Control</u> Type Of Rig <u>Auger Rig</u>	<b style="text-align: center;">WELL DATA Hole Diam. (in.) <u>6.25</u> Final Depth (ft.) <u>62</u> Casing Diam. (in.) <u>2.0</u> Casing Length (ft.) <u>52</u> Screen Setting (ft.) <u>52'-62'</u> Screen Slot & Type <u>.020 PVC</u> Well Status <u>Monitoring Well</u>	<b style="text-align: center;">G W READINGS(1) Date DTW MP(2) Elev.W.T.
<b style="text-align: center;">SAMPLER Type <u>split spoon</u> Hammer <u>140</u> lb. Fall <u>30</u> in.		<b style="text-align: center;">DEVELOPMENT _____ _____ _____

HNU	SAMPLE				Strata Change & Gen. Desc.	Depth (ft.)	SAMPLE DESCRIPTION
	No.	Rec.	Depth (ft.)	Blows / 6"			
0.0		2.0	0'-2'	7/27/60/27		0	Gray and brown fine sand and gravel. Crushed concrete material and cobble pieces.
0.0		.2	5'-7'	3/11/7/7		5	Dark brown fine and medium sand.
0.0		1.3	10'-12'	2/6/11/16		10	Light brown fine and medium SAND with some coarse sand and gravel. Poorly sorted.
0.0		.9	15'-17'	3/3/7/12		15	Light brown fine and medium sand. Some gravel and coarse sand.
0.0		1.0	20'-22'	4/4/4/11		20	Light brown fine and medium sand, some gravel. Cobble in tip.
0.0		.3	25'-27'	4/8/9/11		25	Coarse gravel and some fine sand. Wash material.
0.0		1.2	30'-32'	2/2/8/13		30	Light brown fine sand coarser towards tip. Some crushed gravel.
0.0		.3	35'-37'	2/6/16/16		35	Brown fine and medium SAND.

REMARKS: (1) in feet relative to a common datum
 (2) from top of PVC casing

GEOLOGIC LOG

Study No. <u>07704</u> Date <u>4/11/89</u> Project <u>South Montclair Avenue L.F.</u> Client <u>Gibbs & Hill</u> Page <u>2</u> of <u>2</u> Logged By <u>John C. Sheehan</u> Well No. <u>MW - 4</u> Loc. _____ M.P. Elevation <u>100.34</u> Drilling Started <u>10/27/88</u> Ended <u>10/28/88</u> Driller <u>Marine Pollution Control</u> Type Of Rig <u>Auger Rig</u>	<b style="text-align: center;">WELL DATA Hole Diam. (in.) <u>6.25</u> Final Depth (ft.) <u>62</u> Casing Diam. (in.) <u>2.0</u> Casing Length (ft.) <u>52</u> Screen Setting (ft.) <u>42'-52'</u> Screen Slot & Type <u>.020 PVC</u> Well Status <u>Monitoring Well</u>	<b style="text-align: center;">G W READINGS(1) Date DTW MP(2) Elev. W.T.
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<b style="text-align: center;">SAMPLER Type <u>split spoon</u> Hammer <u>140</u> lb. Fall <u>30</u> in.	<b style="text-align: center;">DEVELOPMENT
--	--

HNU	SAMPLE				Strata Change & Gen. Desc.	Depth (ft.)	SAMPLE DESCRIPTION
	No.	Rec.	Depth (ft.)	Blows/6"			
0.0		1.1	40'-42'	2/4/10/12		40	Light brown and white fine and medium SAND some coarse sand and medium gravel. Poorly sorted.
0.0		1.2	45'-47'	13/12/8/10		45	Light brown and white fine and medium sand. Some gravel.
0.0		.9	50'-52'	10/12/9/12		50	Light brown and tan fine and medium sand with some coarse sand.
0.0		.6	55'-57'	2/2/5/7		55	Brown fine and medium sand some coarse sand.
0.0		.6	60'-62'	1/1/2/3		60	Brown fine and medium SAND. Some coarse sand.
B.O.B. = 65' W - T = 53.0'							

REMARKS: (1) in feet relative to a common datum
 (2) from top of PVC casing

GEOLOGIC LOG

Study No. <u>07704</u> Date <u>4/11/89</u> Project <u>South Montclair Avenue L.F.</u> Client <u>Gibbs & Hill</u> Page <u>1</u> of <u>2</u> Logged By <u>John C. Sheehan</u> Well No. <u>MW - 5</u> Loc. _____ M.P. Elevation <u>112.02</u> Drilling Started <u>11/7/88</u> Ended <u>11/8/88</u> Driller <u>Marine Pollution Control</u> Type Of Rig <u>Auger rig</u>	WELL DATA Hole Diam. (in.) <u>6.25</u> Final Depth (ft.) <u>75</u> Casing Diam. (in.) <u>2.0</u> Casing Length (ft.) <u>69</u> Screen Setting (ft.) <u>65-75'</u> Screen Slot & Type <u>.020 PVC</u> Well Status <u>Monitoring Well</u>	G W READINGS(1) Date DTW MP(2) Elev.W.T.
SAMPLER Type <u>split spoon</u> Hammer <u>140</u> lb. Fall <u>30</u> in.		DEVELOPMENT Method: <u>Pulse pump</u> Amount purged: <u>72 gallons</u> Time of purging: <u>1.25 hour</u>

OVM	SAMPLE				Strata Change & Gen. Desc.	Depth (ft.)	SAMPLE DESCRIPTION
	No.	Rec.	Depth (ft.)	Blows / 6"			
0.2		1.4	0-2'	1/1/1/2		0	Brown fine and medium sand with trace of coarse gravel.
0.2		1.0	5-7'	1/4/7/10		5	Brown fine and medium sand some coarse sand.
0.2		1.1	10-12'	2/5/5/10		10	White and gray fine, medium and coarse sand. Some gravel poorly sorted.
0.2		.6	15-17'	4/7/9/10		15	Beige and tan fine and medium sand with some coarse sand.
0.2		.4	20-22'	2/12/13/11		20	Beige and white fine and medium sand. Some coarse sand.
		0	25-27'	4/10/11/20		25	No recovery.
0.2		.5	30-32'	5/19/30/31		30	Gray and white fine and medium sand. some coarse sand and gravel.
0.2		.6	35-37'	2/6/10/12		35	Gray - white fine and medium sand. Some coarse sand and gravel poorly sorted.

REMARKS: (1) in feet relative to a common datum
 (2) from top of PVC casing

GEOLOGIC LOG

Study No. <u>07704</u> Date <u>4/11/89</u> Project <u>South Montclair Avenue L.F.</u> Client <u>Gibbs & Hill</u> Page <u>2</u> of <u>2</u> Logged By <u>John C. Sheehan</u> Well No. <u>MW - 5</u> Loc. _____	<h3 style="text-align: center;">WELL DATA</h3> Hole Diam. (in.) <u>6.25</u> Final Depth (ft.) <u>75</u> Casing Diam. (in.) <u>2.0</u> Casing Length (ft.) <u>63</u> Screen Setting (ft.) <u>65-75</u> Screen Slot & Type <u>.020 PVC</u> Well Status <u>Monitoring Well</u>	<h3 style="text-align: center;">G W READINGS (1)</h3> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 25%;">Date</th> <th style="width: 25%;">DTW</th> <th style="width: 25%;">MP(2)</th> <th style="width: 25%;">Elev. W.T.</th> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </table>	Date	DTW	MP(2)	Elev. W.T.				
Date	DTW	MP(2)	Elev. W.T.							

M.P. Elevation <u>112.02</u> Drilling Started <u>11/7/88</u> Ended <u>11/9/88</u> Driller <u>Marine Pollution Control</u> Type Of Rig <u>Auger rig</u>	<h3 style="text-align: center;">SAMPLER</h3> Type <u>split spoon</u> Hammer <u>140</u> lb. Fall <u>30</u> in.	<h3 style="text-align: center;">DEVELOPMENT</h3>
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OVM	SAMPLE				Strata Change & Gen. Desc.	Depth (ft.)	SAMPLE DESCRIPTION
	No.	Rec.	Depth (ft.)	Blows / 6"			
0.2		1.0	40-42'	2/5/5/7		40	Gray - white fine and medium sand with some coarse sand and gravel.
0.2		1.2'	45-47'	3/5/7/8		45	Gray - white fine and medium sand. Some coarse sand.
0.2		1.1'	50-52'	4/6/12/22		50	Tan fine and medium sand with some coarse sand.
0.2		1.6'	55-57'	2/6/6/12		55	Brown fine and medium sand with some Iron staining.
0.2		1.0'	60-62'	4/6/8/10		60	Brown and light brown fine sand. Finer material than above. Well sorted. Some iron staining.
0.2		1.5'	65-67'	2/6/15/20		65	Brown and gray fine and medium sand. Well sorted. Wet.
0.2		2.0'	70-72'	5/11/17/18		70	Whitish - gray fine and medium sand. Wet.

B.O.B. = 75'
 W - T = 66'

REMARKS: (1) in feet relative to a common datum
 (2) from top of PVC casing

GEOLOGIC LOG

Study No. <u>07704</u> Date <u>4/11/89</u> Project <u>South Montclair Avenue L.F.</u> Client <u>Gibbs & Hill</u> Page <u>1</u> of <u>2</u> Logged By <u>John C. Sheehan</u> Well No. <u>MW - 6</u> Loc. _____ M.P. Elevation <u>101.56</u> Drilling Started <u>11/2/88</u> Ended <u>11/3/88</u> Driller <u>Marine Pollution Control</u> Type Of Rig <u>Auger rig</u>	WELL DATA Hole Diam. (in.) <u>6.25</u> Final Depth (ft.) <u>63</u> Casing Diam. (in.) <u>2.0</u> Casing Length (ft.) <u>.55</u> Screen Setting (ft.) <u>53-63</u> Screen Slot & Type <u>.020 PVC</u> Well Status <u>Monitoring Well</u>	G W READINGS(1) Date DTW MP(2) Elev.W.T.
SAMPLER Type <u>split spoon</u> Hammer <u>140</u> lb. Fall <u>30</u> in.		DEVELOPMENT Method: <u>Pulse pump</u> Amount purged: <u>57 gallons</u> Duration: <u>1 hour</u>

OVM	SAMPLE				Strata Change & Gen. Desc.	Depth (ft.)	SAMPLE DESCRIPTION
	No.	Rec.	Depth (ft.)	Blows / 6"			
0.4		1.6	0-2'	2/2/2/7		0	Brown fine and medium sand with some coarse sand and gravel. Some staining. Slight odor.
0.4		1.2	5-7'	2/4/9/7		5	0-.5; Brown fine and medium sand with a trace of coarse sand. .5-1.2; Black stained fine and medium sand. Oil odor.
0.4		.7	10-12'	4/7/3/5		10	Dark brown fine and medium sand. Some coarse sand.
5.5		1.5	15-17'	3/8/7/3		15	0-.3; White fine sand .3-.6; Wood and black stained fine sand .6-1.5; Brown fine sand and gravel.
0.2		1.3	20-22'	5/6/7/13		20	Brown and light brown fine and medium sand with some gravel.
0.4		1.4	25-27'	8/6/8/15		25	Light brown and gray fine and medium sand. Some coarse sand and fine gravel.
0.6		1.4	30-32'	4/10/6/10		30	0-.4; White and tan fine sand with coarse sand. .4-1.4' Brown fine sand with areas of black staining some coarse sand.
0.2		1.1	35-37'	6/6/6/12		35	White and tan fine and medium sand with some coarse sand and gravel.

REMARKS: (1) in feet relative to a common datum
 (2) from top of PVC casing

GEOLOGIC LOG

Study No. <u>07704</u> Date <u>4/11/89</u> Project <u>South Montclair Avenue L.F.</u> Client <u>Gibbs & Hill</u> Page <u>2</u> of <u>2</u> Logged By <u>John C. Sheehan</u> Well No. <u>Mw - 6</u> Loc. _____ M.P. Elevation <u>101.56</u> Drilling Started <u>11/2/88</u> Ended <u>11/3/88</u> Driller <u>Marine Pollution Control</u> Type Of Rig <u>Auger rig</u>	<b style="text-align: center;">WELL DATA Hole Diam. (in.) <u>6.25</u> Final Depth (ft.) <u>63</u> Casing Diam. (in.) <u>2.0</u> Casing Length (ft.) <u>55</u> Screen Setting (ft.) <u>53-63</u> Screen Slot & Type <u>.020 PVC</u> Well Status <u>Monitoring Well</u>	<b style="text-align: center;">G W READINGS(1) <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 33%;">Date</th> <th style="width: 33%;">DTW MP(2)</th> <th style="width: 33%;">Elev. W.T.</th> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> </table>	Date	DTW MP(2)	Elev. W.T.			
Date	DTW MP(2)	Elev. W.T.						
<b style="text-align: center;">SAMPLER Type <u>split spoon</u> Hammer <u>140</u> lb. Fall <u>30</u> in.		<b style="text-align: center;">DEVELOPMENT						

OVM	SAMPLE				Strata Change & Gen. Desc.	Depth (ft.)	SAMPLE DESCRIPTION
	No.	Rec.	Depth (ft.)	Blows / 6"			
0.2		1.0	40-42'	3/8/6/15		40	White and tan fine and medium sand. Trace of coarse sand.
0.2		1.0	45-47'	3/6/8/17		45	White and tan fine sand with some gravel.
0.2		1.2	50-52'	3/7/7/19		50	White and tan fine and medium sand. Some layers of darker colored fine and medium sand.
		.3	55-57'	4/8/6/6		55	Brown fine and medium sand, some gravel, wet.
		1.5	60-62'	12/15/8/10		60	Brown fine and medium sand. Some gravel, wet.
							B.O.B = 65 W - T = 53.5

REMARKS: (1) in feet relative to a common datum
 (2) from top of PVC casing

GEOLOGIC LOG

Study No. <u>07704</u> Date <u>4/11/89</u> Project <u>South Montclair Avenue L.</u> Client <u>Gibbs & Hill</u> Page <u>1</u> of <u>2</u> Logged By <u>John C. Sheehan</u> Well No. <u>MW - 7</u> Loc. _____ M.P. Elevation <u>101.95</u> Drilling Started <u>10/31/88</u> Ended <u>11/4/88</u> Driller <u>Marine Pollution Control</u> Type Of Rig <u>Auger rig</u>	WELL DATA Hole Diam. (in.) <u>6.25</u> Final Depth (ft.) <u>62</u> Casing Diam. (in.) <u>2.0</u> Casing Length (ft.) <u>54</u> Screen Setting (ft.) <u>52.0-62.0'</u> Screen Slot & Type <u>.020 PVC</u> Well Status <u>Monitoring Well</u>	G W READINGS(1) Date DTW MP(2) Elev. W.T.
SAMPLER Type <u>split spoon</u> Hammer <u>140</u> lb. Fall <u>30</u> in.		DEVELOPMENT Method: <u>Pulse pump</u> Amount purged: <u>90 gallons</u> Duration of pumping: <u>1:25 hours</u>

OVM	SAMPLE				Strata Change & Gen. Desc.	Depth (ft.)	SAMPLE DESCRIPTION
	No.	Rec.	Depth (ft.)	Blows / 6"			
.6		1.5	0-2'	3/11/11/19		0	0-.8; Brown silty sand. Hard material. Trace of coarse gravel
0.0		1.0	5-7'	1/3/6/12		5	.8-1.5; Light brown fine and medium sand some gravel. Light brown fine and medium sand some gravel.
0.2		.6	10-12'	2/6/5/7		10	Light brown fine and medium sand some gravel. Trace of silt.
0.2		.9	15-17'	2/5/3/8		15	Light brown fine and medium sand. Coarse sand and gravel, trace of silt, poorly sorted
0.6		1.0	20-22'	3/5/7/6		20	Light brown fine and medium sand with some gravel. Poorly sorted.
0.2		.8	25-27'	4/8/6/10		25	Light brown fine sand with some medium sand. Finer material than above.
0.2		1.4	30-32'	3/6/8/8		30	Light brown fine and medium sand with some gravel.
0.2		1.0	35-37'	3/7/13/12		35	Light brown fine and medium sand. Some coarse sand. Trace of silt.

REMARKS: (1) in feet relative to a common datum
 (2) from top of PVC casing

Study No. <u>07704</u> Date <u>4/11/89</u> Project <u>South Montclair Avenue L.F.</u> Client <u>Gibbs & Hill</u> Page <u>2</u> of <u>2</u> Logged By <u>John C. Sheehan</u> Well No. <u>MW - 7</u> Loc. _____ M.P. Elevation <u>101.95'</u> Drilling Started <u>10/31/88</u> Ended <u>11/4/88</u> Driller <u>Marine Pollution Control</u> Type Of Rig <u>Auger rig</u>	WELL DATA		G W READINGS(1)		
	Hole Diam. (in.) <u>6.25</u>	Final Depth (ft.) <u>62</u>	Date	DTW MP(2)	Elev. W. T.
	Casing Diam. (in.) <u>2.0</u>	Casing Length (ft.) <u>52</u>			
	Screen Setting (ft.) <u>52.0-62.0'</u>	Screen Slot & Type <u>.020 PVC</u>			
	Well Status _____				

SAMPLER	DEVELOPMENT
Type <u>split spoon</u>	
Hammer <u>140</u> lb.	
Fall <u>30</u> in.	

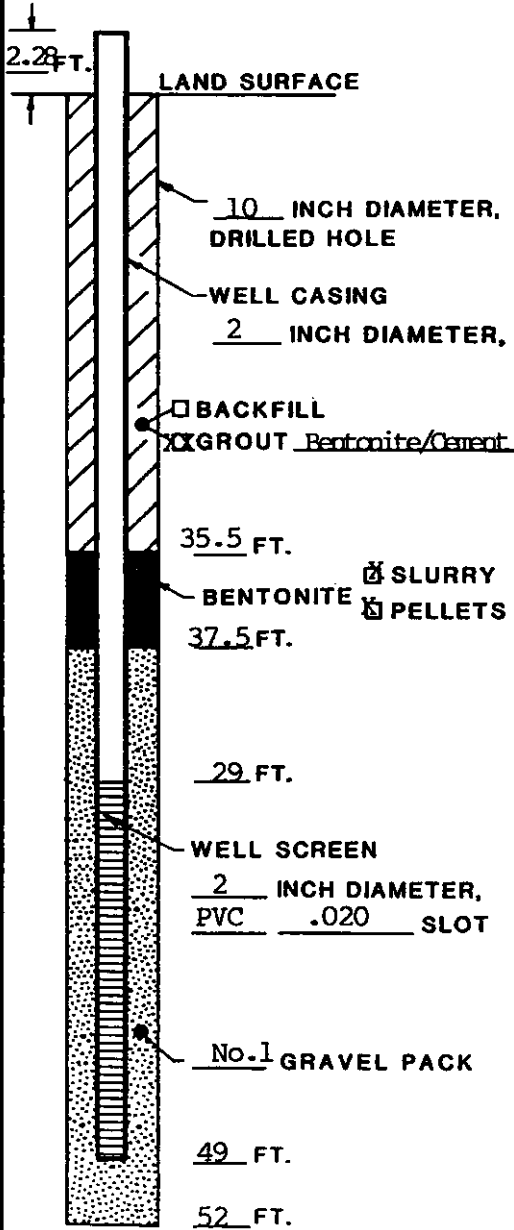
OVM	SAMPLE				Strata Change & Gen. Desc.	Depth (ft.)	SAMPLE DESCRIPTION
	No.	Rec.	Depth (ft.)	Blows/6"			
0.2		1.5	40-42'	3/5/6/11		40	Light brown fine and medium sand with some coarse sand.
0.0		1.0	45-47'	3/8/9/12		45	Light brown fine and medium sand trace of coarse sand and gravel.
0.0		1.6	50-52'	2/6/12/17		50	Light brown fine sand, trace of medium sand, some iron staining, well sorted.
0.4		1.0	55-57'	4/4/5/10		55	Brown fine sand trace of medium and coarse sand. Well sorted. Wet.
						60	
							B.O.B = 65 W - T = 53

REMARKS: (1) in feet relative to a common datum
 (2) from top of PVC casing



Consulting Ground-Water Geologists
ROUX ASSOCIATES INC

MONITORING WELL CONSTRUCTION LOG



NOTE:
 ALL DEPTHS IN FEET
 BELOW LAND SURFACE

PROJECT NAME South Montclair NUMBER 07704

WELL NO. MW - 1 PERMIT NO. _____

TOWN/CITY Smithtown

COUNTY Suffolk STATE NY

LAND-SURFACE ELEVATION

AND DATUM 86.20 FEET SURVEYED

ESTIMATED

INSTALLATION DATE(S) 11-9-88

DRILLING METHOD Hollow Stem Auger

DRILLING CONTRACTOR Marine Pollution Control

DRILLING FLUID NONE

DEVELOPMENT TECHNIQUE(S) AND DATE(S)

Pulse Pump 11-11-88

Amount Purged: 70 gallons

Duration of Purging: 1 hour

FLUID LOSS DURING DRILLING _____ GALLONS

WATER REMOVED DURING DEVELOPMENT 70 GALLONS

STATIC DEPTH TO WATER 42.08 FEET BELOW M.P.

PUMPING DEPTH TO WATER _____ FEET BELOW M.P.

PUMPING DURATION 1 HOURS

YIELD _____ GPM DATE _____

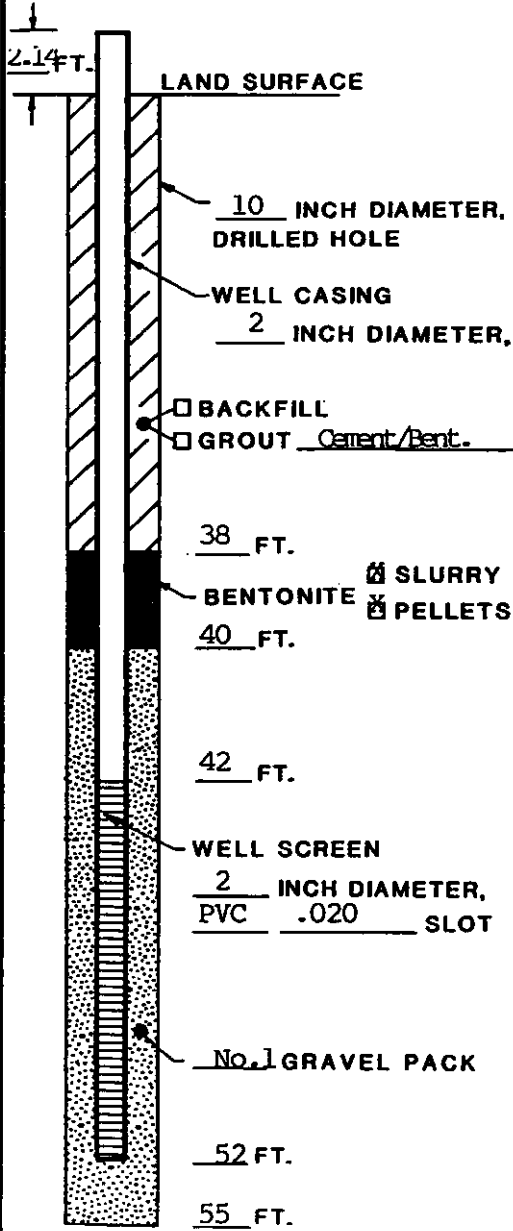
SPECIFIC CAPACITY _____ GPM/FT.

WELL PURPOSE Monitoring

REMARKS _____

HYDROGEOLOGIST John C. Sheehan

MONITORING WELL CONSTRUCTION LOG



NOTE:
 ALL DEPTHS IN FEET
 BELOW LAND SURFACE

PROJECT NAME South Montclair NUMBER 07704

WELL NO. MW - 2 PERMIT NO. _____

TOWN/CITY Smithtown

COUNTY Suffolk STATE NY

LAND-SURFACE ELEVATION
 AND DATUM 90.3 FEET SURVEYED
 ESTIMATED

INSTALLATION DATE(S) 10-27-88

DRILLING METHOD Hollow Stem Auger

DRILLING CONTRACTOR Marine Pollution Control

DRILLING FLUID NONE

DEVELOPMENT TECHNIQUE(S) AND DATE(S)

Pulse Pump

FLUID LOSS DURING DRILLING _____ GALLONS

WATER REMOVED DURING DEVELOPMENT 265 GALLONS

STATIC DEPTH TO WATER 45.60 FEET BELOW M.P.

PUMPING DEPTH TO WATER _____ FEET BELOW M.P.

PUMPING DURATION 3 HOURS

YIELD _____ GPM 1.40 DATE 11-10-88

SPECIFIC CAPACITY _____ GPM/FT.

WELL PURPOSE Monitoring

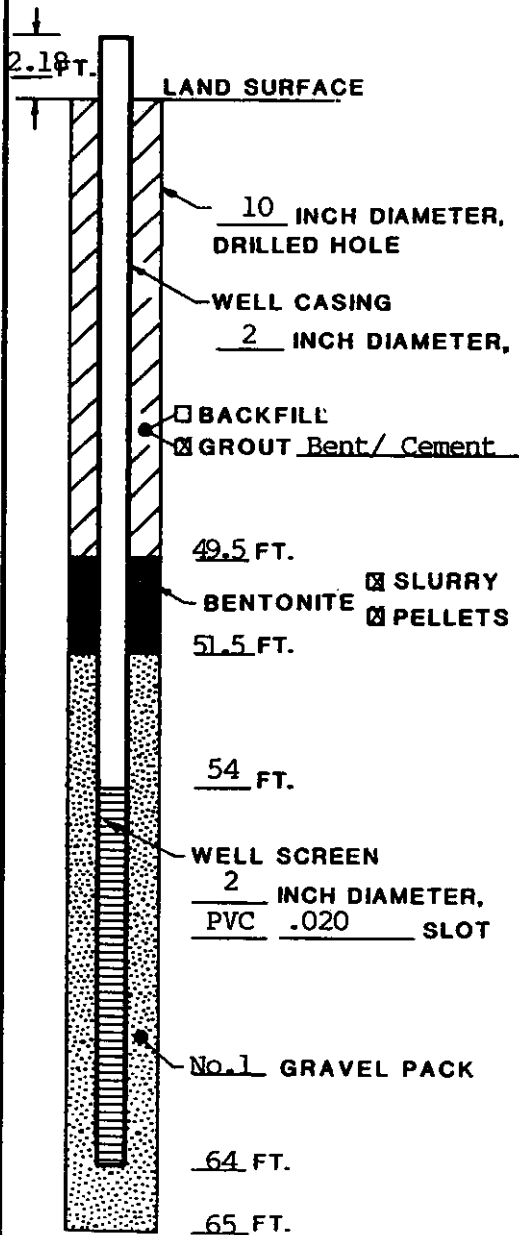
REMARKS _____

HYDROGEOLOGIST John C. Sheehan



Consulting Ground-Water Geologists
ROUX ASSOCIATES INC

MONITORING WELL CONSTRUCTION LOG



NOTE:
 ALL DEPTHS IN FEET
 BELOW LAND SURFACE

PROJECT NAME South Montclair NUMBER 07704

WELL NO. MW - 3 PERMIT NO. _____

TOWN/CITY Smithtown

COUNTY Suffolk STATE NY

LAND-SURFACE ELEVATION _____

AND DATUM 100.6 FEET SURVEYED

ESTIMATED

INSTALLATION DATE(S) 10-25-88

DRILLING METHOD Hollow Stem Auger

DRILLING CONTRACTOR Marine Pollution control

DRILLING FLUID NONE

DEVELOPMENT TECHNIQUE(S) AND DATE(S)

Pulse Pump 11-10-88

FLUID LOSS DURING DRILLING _____ GALLONS

WATER REMOVED DURING DEVELOPMENT 92 GALLONS

STATIC DEPTH TO WATER 56.5 FEET BELOW M.P.

PUMPING DEPTH TO WATER _____ FEET BELOW M.P.

PUMPING DURATION 2.5 HOURS

YIELD _____ GPM 1.5 DATE _____

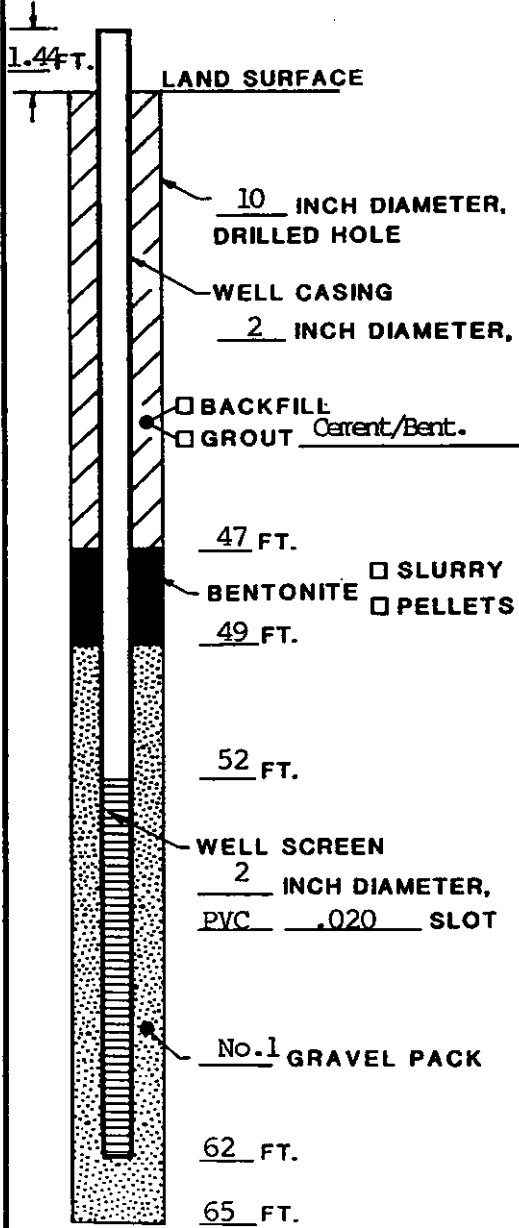
SPECIFIC CAPACITY _____ GPM/FT.

WELL PURPOSE Monitoring

REMARKS _____

HYDROGEOLOGIST John C. Sheehan

MONITORING WELL CONSTRUCTION LOG



NOTE:
 ALL DEPTHS IN FEET
 BELOW LAND SURFACE

PROJECT NAME South Montclair NUMBER 07704

WELL NO. MW - 4 PERMIT NO. _____

TOWN/CITY Smithtown

COUNTY Suffolk STATE NY

LAND-SURFACE ELEVATION _____

AND DATUM 98.9 FEET SURVEYED

ESTIMATED

INSTALLATION DATE(S) 10-28-88

DRILLING METHOD Hollow Stem Auger

DRILLING CONTRACTOR Marine Pollution Control

DRILLING FLUID NONE

DEVELOPMENT TECHNIQUE(S) AND DATE(S)

Pulse Pump 11-11-88

FLUID LOSS DURING DRILLING _____ GALLONS

WATER REMOVED DURING DEVELOPMENT 65 GALLONS

STATIC DEPTH TO WATER 54.0 FEET BELOW M.P.

PUMPING DEPTH TO WATER _____ FEET BELOW M.P.

PUMPING DURATION 1.25 HOURS

YIELD _____ GPM 1.36 DATE 11-11-88

SPECIFIC CAPACITY _____ GPM/FT.

WELL PURPOSE Monitoring

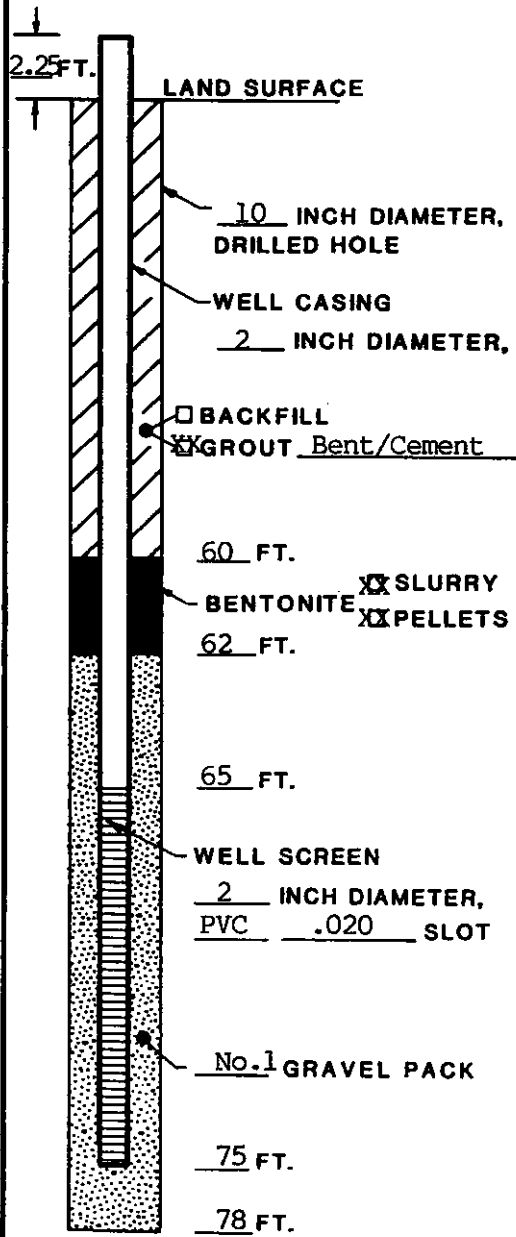
REMARKS _____

HYDROGEOLOGIST John C. Sheehan



Consulting Ground-Water Geologists
ROUX ASSOCIATES INC

MONITORING WELL CONSTRUCTION LOG



NOTE:
 ALL DEPTHS IN FEET
 BELOW LAND SURFACE

PROJECT NAME South Montclair NUMBER 07704

WELL NO. MW - 5 PERMIT NO. _____

TOWN/CITY Smithtown

COUNTY Suffolk STATE NY

LAND-SURFACE ELEVATION
 AND DATUM 109.9 FEET SURVEYED
 ESTIMATED

INSTALLATION DATE(S) 11-8-88

DRILLING METHOD Hollow Stem Auger

DRILLING CONTRACTOR Marine Pollution Control

DRILLING FLUID NONE

DEVELOPMENT TECHNIQUE(S) AND DATE(S)
Pulse Pump 11-11-88

FLUID LOSS DURING DRILLING _____ GALLONS

WATER REMOVED DURING DEVELOPMENT 72 GALLONS

STATIC DEPTH TO WATER 68.0 FEET BELOW M.P.

PUMPING DEPTH TO WATER _____ FEET BELOW M.P.

PUMPING DURATION 1.25 HOURS

YIELD _____ GPM 1.29 DATE 11-11-88

SPECIFIC CAPACITY _____ GPM/FT.

WELL PURPOSE Monitoring

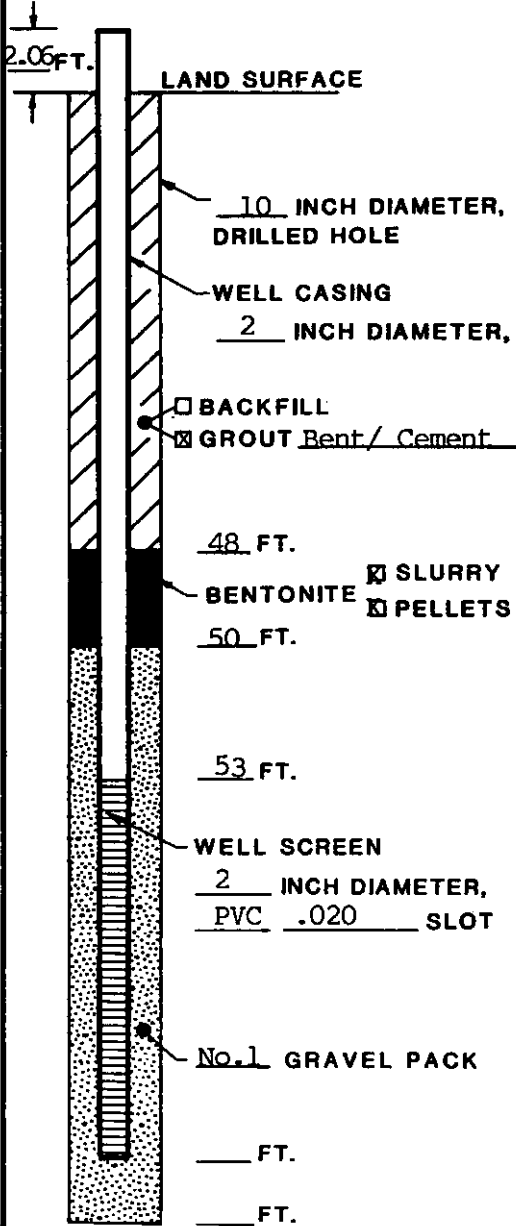
REMARKS _____

HYDROGEOLOGIST John C. Sheehan



Consulting Ground-Water Geologists
ROUX ASSOCIATES INC

MONITORING WELL CONSTRUCTION LOG



NOTE:
ALL DEPTHS IN FEET
BELOW LAND SURFACE

PROJECT NAME South Montclair NUMBER 07704

WELL NO. MW - 6 PERMIT NO. _____

TOWN/CITY Smithtown

COUNTY Suffolk STATE NY

LAND-SURFACE ELEVATION

AND DATUM 99.5 FEET SURVEYED

ESTIMATED

INSTALLATION DATE(S) 11-3-88

DRILLING METHOD Hollow Stem Auger

DRILLING CONTRACTOR Marine Pollution Control

DRILLING FLUID NONE

DEVELOPMENT TECHNIQUE(S) AND DATE(S)

pulse. Pump 11-11-88

FLUID LOSS DURING DRILLING _____ GALLONS

WATER REMOVED DURING DEVELOPMENT 57 GALLONS

STATIC DEPTH TO WATER 56.0 FEET BELOW M.P.

PUMPING DEPTH TO WATER _____ FEET BELOW M.P.

PUMPING DURATION 1 HOURS

YIELD _____ GPM 1.36 DATE 11-11-88

SPECIFIC CAPACITY _____ GPM/FT.

WELL PURPOSE monitoring

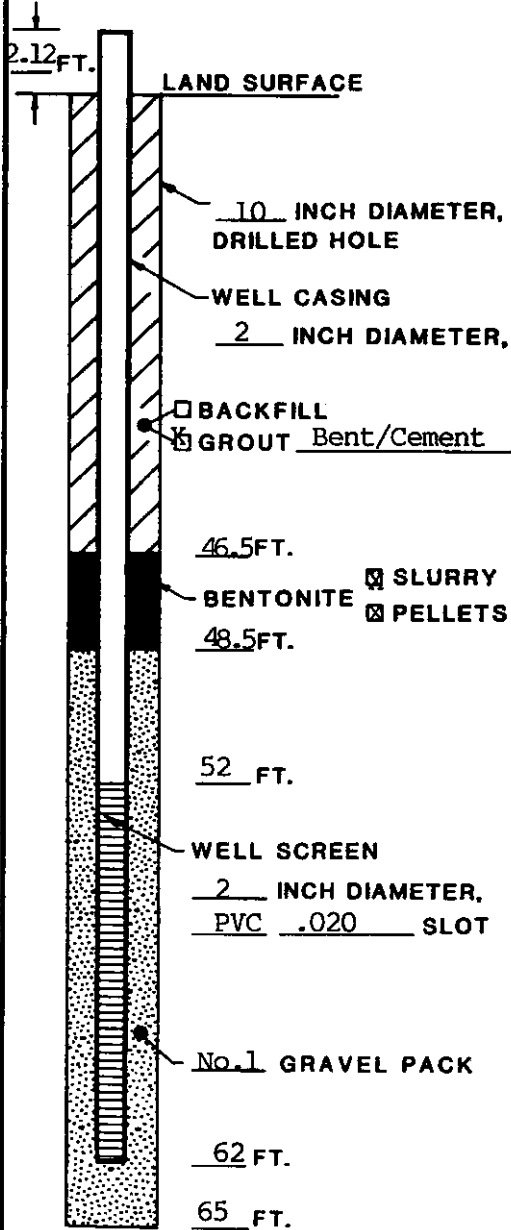
REMARKS _____

HYDROGEOLOGIST John C. Sheehan



Consulting Ground-Water Geologists
ROUX ASSOCIATES INC

MONITORING WELL CONSTRUCTION LOG



NOTE:
 ALL DEPTHS IN FEET
 BELOW LAND SURFACE

PROJECT NAME South Montclair NUMBER 07704

WELL NO. MW - 7 PERMIT NO. _____

TOWN/CITY Smithtown

COUNTY Suffolk STATE NY

LAND-SURFACE ELEVATION AND DATUM 99.7 FEET SURVEYED
 ESTIMATED

INSTALLATION DATE(S) 11-4-88

DRILLING METHOD Hollow Stem Auger

DRILLING CONTRACTOR Marine Pollution Control

DRILLING FLUID NONE

DEVELOPMENT TECHNIQUE(S) AND DATE(S)
Pulse Pump 11-11-88

FLUID LOSS DURING DRILLING _____ GALLONS

WATER REMOVED DURING DEVELOPMENT 90 GALLONS

STATIC DEPTH TO WATER 55.80 FEET BELOW M.P.

PUMPING DEPTH TO WATER _____ FEET BELOW M.P.

PUMPING DURATION 1.25 HOURS

YIELD _____ GPM 1.25 DATE 11-11-88

SPECIFIC CAPACITY _____ GPM/FT.

WELL PURPOSE Monitoring

REMARKS _____

HYDROGEOLOGIST John C. Sheehan

APPENDIX D

Chain of Custody Documentation

Roux Associates

8 groundwater samples

South Montclair Avenue Landfill

Field Blank
Trip Blank

CHAIN OF CUSTODY RECORD

PROJ. NO.	PROJECT NAME	NO. OF CON. TUBES	STATION LOCATION	REMARKS
07704	So. Montclair Ave Land Fill	14	MW7	MS/MSD also
SAMPLERS: <i>Ellen Seaman</i>				
STA. NO.	DATE	TIME	STATION LOCATION	REMARKS
MW7	11/18/88	2:30	MW7	
MW3	"	"	MW3	
MW4	"	10:50	MW4	
MW2	"	09:40	MW2	
MW6	"	13:30	MW6	
MW8	"	14:00	MW8	
MW5	"	14:50	MW5	
MW1	"	16:00	MW1	
!			Field Blank	
!			Trip Blank	
			2 Gallons of F.B. H ₂ O	
			1 Glass Bottle organic free H ₂ O	
Relinquished by: <i>h/pw</i>	Date / Time: 11/18/88	7:30 pm	Accepted by: <i>Eric Green</i>	Relinquished by: Department
Relinquished by: <i>Ellen Seaman</i>	Date / Time: 11/18/88		Accepted by: Department	Relinquished by: Department
Relinquished by: Department	Date / Time: 11/18/88	16:50	Accepted for Laboratory by: <i>Ellen Seaman</i>	Relinquished by: Department
				Remarks: 11/18/88 MS/MSD

glass vial (HCL) 3 7 2
 1000 ml plastic (HCL) 2 3 1
 1 qt cube (HCL) 2 3 1

APPENDIX E

**Laboratory Analytical Data and
Data Validation Report**

ENVIRONMENTAL and INDUSTRIAL ANALYTICAL LABORATORY

SAMPLE IDENTIFICATION AND ANALYTICAL REQUIREMENT SUMMARY

Customer Sample Code	Laboratory Sample Code	Analytical Requirements					
		CLP					
		VOA GC/MS	BNA GC/MS	VOA GC	PEST PCB	METALS HSL	OTHER CYANIDE
MW-1	872475/872485	X	X		X	X	X
MW-2	872476/872486	X	X		X	X	X
MW-3	872477/872487	X	X		X	X	X
MW-4	872478/872488	X	X		X	X	X
MW-5	872479/872489	X	X		X	X	X
MW-6	872480/872490	X	X		X	X	X
MW-7	872481/872491	X	X		X	X	X
MW-8	872482/872492	X	X		X	X	X
FIELD BLANK	872483/872493	X	X		X	X	X
TRIP BLANK	872484	X					

ENVIRONMENTAL and INDUSTRIAL ANALYTICAL LABORATORY

SAMPLE PREPARATION AND ANALYSIS SUMMARY
B/N-A
ANALYSES

SAMPLE ID	MATRIX	DATE COLLECTED	DATE REC'D AT LAB	DATE EXTRACTED	DATE ANALYZED
MW-1	WATER	11/11/88	11/11/88	11/29/88	11/30/88
MW-2	"	"	"	11/14/88	11/23/88
MW-3	"	"	"	"	11/24/88
MW-4	"	"	"	"	"
MW-5	"	"	"	"	"
MW-6	"	"	"	"	"
MW-7	"	"	"	"	"
MW-8	"	"	"	"	11/30/88
FIELD BLANK	"	"	"	"	12/01/88

ENVIRONMENTAL and INDUSTRIAL ANALYTICAL LABORATORY**SAMPLE PREPARATION AND ANALYSIS SUMMARY****ORGANIC ANALYSES****PURGEABLES**

SAMPLE ID	MATRIX	ANALYTICAL PROTOCOL	EXTRACTION METHOD	AUXILARY CLEAN UP	DIL/CONC FACTOR
MW-1	WATER	CLP	NONE	NONE	1.0
MW-2	WATER	CLP	NONE	NONE	1.0
MW-3	WATER	CLP	NONE	NONE	1.0
MW-4	WATER	CLP	NONE	NONE	1.0
MW-5	WATER	CLP	NONE	NONE	1.0
MW-6	WATER	CLP	NONE	NONE	1.0
MW-7	WATER	CLP	NONE	NONE	1.0
MW-8	WATER	CLP	NONE	NONE	1.0
FIELD BLANK	WATER	CLP	NONE	NONE	1.0
TRIP BLANK	WATER	CLP	NONE	NONE	1.0

ENVIRONMENTAL and INDUSTRIAL ANALYTICAL LABORATORY

SAMPLE PREPARATION AND ANALYSIS SUMMARY

ORGANIC ANALYSES

BASE NEUTRAL/ACID EXTRACTABLES

SAMPLE ID	MATRIX	ANALYTICAL PROTOCOL	EXTRACTION METHOD	AUXILARY CLEAN UP	DIL/CONC FACTOR
MW-1	WATER	CLP	SEPF	NONE	1.0
MW-2	WATER	CLP	SEPF	NONE	1.0
MW-3	WATER	CLP	SEPF	NONE	1.0
MW-4	WATER	CLP	SEPF	NONE	1.0
MW-5	WATER	CLP	SEPF	NONE	1.0
MW-6	WATER	CLP	SEPF	NONE	1.0
MW-7	WATER	CLP	SEPF	NONE	1.0
MW-8	WATER	CLP	SEPF	NONE	1.0
FIELD BLANK	WATER	CLP	SEPF	NONE	1.0

ENVIRONMENTAL and INDUSTRIAL ANALYTICAL LABORATORY

SAMPLE PREPARATION AND ANALYSIS SUMMARY

ORGANIC ANALYSES

PESTICIDE / PCB

SAMPLE ID	MATRIX	ANALYTICAL PROTOCOL	EXTRACTION METHOD	AUXILARY CLEAN UP	DIL/CONC FACTOR
MW-1	WATER	CLP	SEPF	NONE	1.0
MW-2	WATER	CLP	SEPF	NONE	1.0
MW-3	WATER	CLP	SEPF	NONE	1.0
MW-4	WATER	CLP	SEPF	NONE	1.0
MW-5	WATER	CLP	SEPF	NONE	1.0
MW-6	WATER	CLP	SEPF	NONE	1.0
MW-6	WATER	CLP	SEPF	NONE	1.0
MW-7	WATER	CLP	SEPF	NONE	1.0
MW-8	WATER	CLP	SEPF	NONE	1.0
FIELD BLANK	WATER	CLP	SEPF	NONE	1.0

ENVIRONMENTAL and INDUSTRIAL ANALYTICAL LABORATORY

SAMPLE PREPARATION AND ANALYSIS SUMMARY
VOA
ANALYSES

SAMPLE ID	MATRIX	DATE	DATE REC'D	DATE	DATE
		COLLECTED	AT LAB	EXTRACTED	ANALYZED
MW-1	WATER	11/11/88	11/11/88	--	11/16/88
MW-2	WATER	"	"	--	"
MW-3	WATER	"	"	--	"
MW-4	WATER	"	"	--	"
MW-5	WATER	"	"	--	"
MW-6	WATER	"	"	--	"
MW-7	WATER	"	"	--	"
MW-8	WATER	"	"	--	"
FIELD BLANK	WATER	"	"	--	"
TRIP BLANK	WATER	"	"	--	"

ENVIRONMENTAL and INDUSTRIAL ANALYTICAL LABORATORY

SAMPLE PREPARATION AND ANALYSIS SUMMARY
 PESTICIDE/PCB
 ANALYSES

SAMPLE ID	MATRIX	DATE COLLECTED	DATE REC'D AT LAB	DATE EXTRACTED	DATE ANALYZED
SAMPLE #1	WATER	11/10/88	11/11/88	11/13/88	12/13/88
SAMPLE #2	"			"	"
SAMPLE #3	"			"	"
SAMPLE #4	"			"	"
FIELD BLANK	"			"	"

SAMPLE PREPARATION AND ANALYSIS SUMMARY

INORGANIC ANALYSES

SAMPLE ID	MATRIX	ANALYTICAL PROTOCOL	DIGESTION METHOD	MATRIX MODIFIER	DIL/CONC FACTOR
MW-1	WATER	200.7	3020	HNO ₃	2%
MW-2	"	"	"	"	"
MW-3	"	"	"	"	"
MW-4	"	"	"	"	"
MW-5	"	"	"	"	"
MW-6	"	"	"	"	"
MW-7	"	"	"	"	"
MW-8	"	"	"	"	"
FIELD BLANK	"	"	"	"	"

ENVIRONMENTAL and INDUSTRIAL ANALYTICAL LABORATORY

CASE NARRATIVE FOR PURGABLE ORGANICS

No problems were encountered in the quality control or calibration for this data package.

Trace levels of some targeted as well as non-targeted analytes were detected in the instrument blank. These analytes were flagged with a "B" qualifier when detected in the samples.

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: 12/29/88

*  *

John J. Molloy, P.E.
Laboratory Director

ENVIRONMENTAL and INDUSTRIAL ANALYTICAL LABORATORY

CASE NARRATIVE FOR BASE NEUTRAL/ACID EXTRACTABLES

All the quality control requirements were met for this data package with the following exceptions:

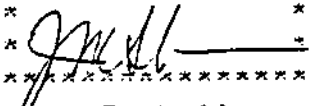
The RPD was just outside the allowable limits for the matrix spike and matrix spike duplicate results for 1,4-dichlorobenzene, 1,2,4-trichlorobenzene, acenaphthene and pyrene.

The base neutral fraction for sample MW-1 and the field blank were re-extracted due to a low surrogate recovery-the recoveries of the re-extraction meet the quality control criteria.

The acid fraction of sample MW-2 was re-extracted as well-the re-extraction recoveries of the surrogates were within the allowable limits.

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: 12/27/88

*  *

John J. Molloy, P.E.
Laboratory Director

ENVIRONMENTAL and INDUSTRIAL ANALYTICAL LABORATORY

CASE NARRATIVE FOR PESTICIDE/PCB'S

Quality Control Data

The surrogate recoveries for DBC for samples MW-5 and the matrix spike duplicate for sample MW-1 were above the advisory limits. The matrix spike and the matrix spike duplicate recoveries were well above the expected range. The calculations were checked and found correct. The cause of this is currently under investigation.

Linearity was not met for the evaluation mixes on the confirmatory sequence for aldrin and endrin. Linearity was established for DBC.

The sequence on the confirmatory column had to be terminated with run 36 of the Individual Mix B. The following standard run did not meet quality control requirements because the DBC retention time shift drifted out of the allowable limits. The problem was traced to a leaking septum. After remedial action was taken conditions had apparently changed and therefore a new sequence was started. Samples analyzed after run 36 (not from this package) were included in a new sequence.

The raw data files transferred to the HP1000 computer from the integrator could not be retrieved for the runs of the two Aroclors, 1248 and 1254. No factors for the HP1000 could therefore be calculated. Factors - as a relative value - could have been determined by the areas for the integrator 3392A. This was omitted since no factors were needed for the secondary runs. The original chromatograms for the integrator are submitted instead of the HP1000 printout.

Sample Data

A low level of a compound eluting at the aldrin retention time on both the primary and the secondary column was detected in the method blank as well as in all samples and the field blank.

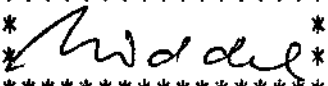
ENVIRONMENTAL and INDUSTRIAL ANALYTICAL LABORATORY

Page 2.

In those cases where the secondary column data gives much lower results than the primary, it must be assumed that the analyte is fusing with an interference on the primary column and the lower quantities from the secondary column are then reported. This applies to heptachlor in MW-3 and aldrin in MW-5, MW-6 and MW-8.

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: 12/29/88

*  *

John J. Molloy, P.E.
Laboratory Director

ENVIRONMENTAL and INDUSTRIAL ANALYTICAL LABORATORY

CASE NARRATIVE FOR METALS

Furnace analysis was performed on Perkin Elmer Zeeman 5100 Furnace and the Varian GTA-96 Furnace. Mercury was analyzed using the manual cold vapor method. Due to ICP instrument operating difficulties, samples had to be analyzed on the Perkin Elmer 2380 Flame A.A.

The matrix spike recoveries for sample MW #7 were out of control for antimony, calcium, magnesium, potassium, selenium and thallium. All associated results reported flagged with "N". Since antimony was to be analyzed via ICP, a 500 ug/l matrix spiking level was used. However, because of equipment failure, antimony was analyzed on the furnace. The furnace spiking level was not used. Matrix spike recoveries for iron and aluminum on sample MW #7 are outside the linear range as determined by the calibration curve generated at the beginning of the run. Results reported unflagged.

The selenium absorbances for samples MW #2, MW #4, MW #6, MW #7 and MW #8 were less than 50% of the post spike absorbances. Since the spike recovery was not between 85-115%, the values associated are flagged with "W".


The antimony absorbances for sample MW #3 was less than 50% of the post digested spike absorbance. Since the spike recovery was not between 85-115%, the values associated are flagged with "W". The thallium absorbances for samples MW #1, MW #4, MW #6, and MW #7 and MW #8 were less than 50% of the post spike absorbances. Since the spike recoveries were not between 85-115%, the values associated are flagged with "W".

Furnace MSA analysis of lead was required for sample MW #5. Result reported flagged with "s".

Duplicate analysis of sample MW #7 is out of the required control limit for silver. All associated results reported flagged with a "*".

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: 12/20/88

*  *

John J. Molloy, P.E.
Laboratory Director

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.
- Other - Other specific flags and footnotes may be required to properly defined the results. If used, they must be fully described and such description attached to the data summary report.

ENVIRONMENTAL and INDUSTRIAL ANALYTICAL LABORATORY**VOLATILE ORGANICS ANALYSIS DATA SHEET**

Lab Name: H2M Labs, Inc. Lab Sample ID: 872475 Sample No. MW-1
Lab Code: --- Case No. --- SAS No.: --- SDG No.: ---
Matrix: Water Lab File ID: PU9345 ROUX ASSOCIATES
Sample Vol: 5 ml Date Received: 11/11/88
Level: Low Date Analyzed: 11/16/88
% Moisture: not dec: -- Dilution Factor: 1.0
Column: Pack South Montclair Avenue Landfill
Groundwater Samples Target Compound List Parameters

C.A.S. Number	Compound	Concentration	Unit: ug/l
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	11	B
67-64-1	Acetone	19	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	2	JB
107-02-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	5	U
71-55-6	1,1,1-Trichloroethane	5	B
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	JB
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Xylene (total)	5	U

* *John J. Molloy* *

Date Reported: 12/27/88

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

Lab Name: H2M Labs, Inc. Contract: Gibbs & Hill ROUX ASSOC. MW-1
Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____
Matrix: Water Lab Sample ID: 872475
Sample Vol: 5 ml Lab File ID: PU9345
Level: Low Date Received: 11/11/88
% Moisture: Not dec. -- Date Analyzed: 11/16/88
Column: Pack Dilution Factor: 1.0

Number TICs found: 3 Concentration Units: ug/l

CAS	Compound Name	RT	Est.	Q
75718	Dichlorodifluoromethane	2:45	26	JB
	Unknown alkene <i>int</i>	12:41	6	JB
	Unknown alkene	13:19	18	JB

Date Reported: 12/27/88

* *John J. Molloy* *

John J. Molloy, P.E.
Laboratory Director

ENVIRONMENTAL and INDUSTRIAL ANALYTICAL LABORATORY

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: H2M Labs, Inc. Lab Sample ID: 872476 Sample No. MW-2
 Lab Code: --- Case No. --- SAS No.: --- SDG No.: --- Hrs. 0900
 Matrix: Water Lab File ID: PU9346 ROUX ASSOCIATES
 Sample Vol: 5 ml Date Received: 11/11/88
 Level: Low Date Analyzed: 11/16/88
 % Moisture: not dec: -- Dilution Factor: 1.0
 Column: Pack South Montclair Avenue Landfill
 Groundwater Samples Target Compound List Parameter

C.A.S. Number	Compound	Concentration	Unit: ug/l
74-87-3	Chloromethane	8	J
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	11	B
67-64-1	Acetone	12	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	2	JB
107-02-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	5	U
71-55-6	1,1,1-Trichloroethane	2	JB
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	JB
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Xylene (total)	5	U

 * *John J. Molloy* *

 John J. Molloy, P.E.
 Laboratory Director

Date Reported: 12/27/88

ENVIRONMENTAL and INDUSTRIAL ANALYTICAL LABORATORY

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: H2M Labs, Inc. Lab Sample ID: 872477 Sample No. MW-3
 Lab Code: --- Case No. --- SAS No.: --- SDG No.: --- Hrs. 0850
 Matrix: Water Lab File ID: PU9347 ROUX ASSOCIATES
 Sample Vol: 5 ml Date Received: 11/11/88
 Level: Low Date Analyzed: 11/16/88
 % Moisture: not dec: -- Dilution Factor: 1.0
 Column: Pack South Montclair Avenue Landfill
 Groundwater Samples Target Compound List Parameters

C.A.S. Number	Compound	Concentration	Unit: ug/l
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	9	B
67-64-1	Acetone	15	B
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	2	J
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	2	JB
107-02-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	5	U
71-55-6	1,1,1-Trichloroethane	2	JB
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	1	J
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	2	J
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	JB
108-90-7	Chlorobenzene	2	J
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Xylene (total)	5	U

 * * * * *
 * *John J. Molloy* *
 * * * * *

Date Reported: 12/27/88

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

Lab Name: H2M Labs, Inc. Contract: Gibbs & Hill ROUX ASSOC. MW-3
Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____
Matrix: Water Lab Sample ID: 872477
Sample Vol: 5 ml Lab File ID: PU9347
Level: Low Date Received: 11/11/88
% Moisture: Not dec. -- Date Analyzed: 11/16/88
Column: Pack Dilution Factor: 1.0

Number TICs found: 4 Concentration Units: ug/l

CAS	Compound Name	RT	Est. Conc.	Q
75718	Dichlorodifluoromethane	2:48	54	JB
	Unknown alkene	12:44	6	JB
	Unknown alkene	13:22	19	JB
	Unknown	28:07	6	J

Date Reported: 12/27/88

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

ENVIRONMENTAL and INDUSTRIAL ANALYTICAL LABORATORY

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: H2M Labs, Inc. Lab Sample ID: 872478 Sample No. MW-4
 Lab Code: --- Case No. --- SAS No.: --- SDG No.: --- Hrs. 1050
 Matrix: Water Lab File ID: PU9348 ROUX ASSOCIATES
 Sample Vol: 5 ml Date Received: 11/11/88
 Level: Low Date Analyzed: 11/16/88
 % Moisture: not dec: -- Dilution Factor: 1.0
 Column: Pack South Montclair Avenue Landfill
 Groundwater Samples Target Compound List Parameters

C.A.S. Number	Compound	Concentration	Unit: ug/l
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	8	B
67-64-1	Acetone	12	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	2	JB
107-02-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	5	U
71-55-6	1,1,1-Trichloroethane	1	JB
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	3	JB
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	1	JB
108-90-7	Chlorobenzene	12	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Xylene (total)	5	U

 *
 * *John J. Molloy* *

Date Reported: 12/27/88

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

Lab Name: H2M Labs, Inc. Contract: Gibbs & Hill ROUX ASSOC. MW-4
 Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____
 Matrix: Water Lab Sample ID: 872478
 Sample Vol: 5 ml Lab File ID: PU9348
 Level: Low Date Received: 11/11/88
 % Moisture: Not dec. -- Date Analyzed: 11/16/88
 Column: Pack Dilution Factor: 1.0

Number TICs found: 2 Concentration Units: ug/l

CAS	Compound Name	RT	Est. Conc.	Q
	Unknown alkene	13:22	30	JB
	Unknown alkene	12:41	10	JB

Date Reported: 12/27/88

 * *
 * *John J. Molloy* *

 John J. Molloy, P.E.
 Laboratory Director

ENVIRONMENTAL and INDUSTRIAL ANALYTICAL LABORATORY

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: H2M Labs, Inc. Lab Sample ID: 872479 Sample No. MW-5
 Lab Code: --- Case No. --- SAS No.: --- SDG No.: ---
 Matrix: Water Lab File ID: PU9349 ROUX ASSOCIATES
 Sample Vol: 5 ml Date Received: 11/11/88
 Level: Low Date Analyzed: 11/16/88
 % Moisture: not dec: -- Dilution Factor: 1.0
 Column: Pack South Montclair Avenue Landfill
 Groundwater Samples Target Compound List Parameters

C.A.S. Number	Compound	Concentration	Unit: ug/l
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	11	B
67-64-1	Acetone	13	B
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	6	
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	1	JB
107-02-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	3	JB
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	8	B
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	4	JB
108-90-7	Chlorobenzene	40	B
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Xylene (total)	5	U

 *
 * *John J. Molloy* *

Date Reported: 12/27/88

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

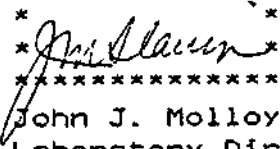
ENVIRONMENTAL and INDUSTRIAL ANALYTICAL LABORATORY

Lab Name: H2M Labs, Inc. Contract: Gibbs & Hill ROUX ASSOC. MW-5
Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____
Matrix: Water Lab Sample ID: 872479
Sample Vol: 5 ml Lab File ID: PU9349
Level: Low Date Received: 11/11/88
% Moisture: Not dec. -- Date Analyzed: 11/16/88
Column: Pack Dilution Factor: 1.0

Number TICs found: 3 Concentration Units: ug/l

CAS	Compound Name	RT	Est. Conc.	Q
75718	Dichlorodifluoromethane	2:45	16	JB
	Unknown alkene	12:44	7	JB
	Unknown alkene	13:19	17	JB

Date Reported: 12/27/88

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John J. Molloy, P.E.
Laboratory Director

ENVIRONMENTAL and INDUSTRIAL ANALYTICAL LABORATORY

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: H2M Labs, Inc. Lab Sample ID: 872480 Sample No. MW-6
 Lab Code: --- Case No. --- SAS No.: --- SDG No.: --- Hrs. 1330
 Matrix: Water Lab File ID: PU9353 ROUX ASSOCIATES
 Sample Vol: 5 ml Date Received: 11/11/88
 Level: Low Date Analyzed: 11/16/88
 % Moisture: not dec: -- Dilution Factor: 1.0
 Column: Pack South Montclair Avenue Landfill
 Groundwater Samples Target Compound List Parameters

C.A.S. Number	Compound	Concentration	Unit: ug/l
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	5	B
67-64-1	Acetone	8	JB
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	3	J
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	5	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Xylene (total)	5	U

 *
 * *John J. Molloy* *

 John J. Molloy, P.E.
 Laboratory Director

Date Reported: 12/27/88

H2M LABS, INC.

575 Broad Hollow Road, Melville, N.Y. 1174
(516) 694-3040 FAX: (516) 694-4122

ENVIRONMENTAL and INDUSTRIAL ANALYTICAL LABORATORY

Lab Name: H2M Labs, Inc. Contract: Gibbs & Hill ROUX ASSOC. MW-6
Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____
Matrix: Water Lab Sample ID: 872480
Sample Vol: 5 ml Lab File ID: PU9353
Level: Low Date Received: 11/11/88
% Moisture: Not dec. -- Date Analyzed: 11/16/88
Column: Pack Dilution Factor: 1.0

Number TICs found: 4 Concentration Units: ug/l

CAS	Compound Name	RT	Est.	Q
	Unknown alkene	13:34	19	JB
	Unknown	22:49	21	J
	Unknown alkene	23:21	14	J
	Unknown alkene	23:54	12	J

Date Reported: 12/27/88

* *J. Molloy* *

John J. Molloy, P.E.
Laboratory Director

ENVIRONMENTAL and INDUSTRIAL ANALYTICAL LABORATORY**VOLATILE ORGANICS ANALYSIS DATA SHEET**

Lab Name: H2M Labs, Inc. Lab Sample ID: 872481 Sample No. MW-7
Lab Code: --- Case No. ----- SAS No.: ----- SDG No.: ---- Hrs. 1230
Matrix: Water Lab File ID: PU9354 ROUX ASSOCIATES
Sample Vol: 5 ml Date Received: 11/11/88
Level: Low Date Analyzed: 11/16/88
% Moisture: not dec: -- Dilution Factor: 1.0
Column: Pack South Montclair Avenue Landfill
Groundwater Samples Target Compound List Parameters

C.A.S. Number	Compound	Concentration Unit: ug/l	
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	10	B
67-64-1	Acetone	5	B
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	1	J
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	1	J
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Xylene (total)	5	U

* *John J. Molloy* *

Date Reported: 12/27/88

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

Lab Name: H2M Labs, Inc. Contract: Gibbs & Hill ROUX ASSOC. MW-7
Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____
Matrix: Water Lab Sample ID: 872481
Sample Vol: 5 ml Lab File ID: PU9354
Level: Low Date Received: 11/11/88
% Moisture: Not dec. -- Date Analyzed: 11/16/88
Column: Pack Dilution Factor: 1.0

Number TICs found: 2 Concentration Units: ug/l

CAS	Compound Name	RT	Conc.	Est.
	Unknown alkene	13:16	18	JB
	Unknown alkene	14:01	19	JB

Date Reported: 12/27/88

*
* *J. Molloy* *
*

John J. Molloy, P.E.
Laboratory Director

ENVIRONMENTAL and INDUSTRIAL ANALYTICAL LABORATORY

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: H2M Labs, Inc. Lab Sample ID: 872482 Sample No. MW-8
 Lab Code: --- Case No. ----- SAS No.: ----- SDG No.: ----- Hrs. 1400
 Matrix: Water Lab File ID: PU9343 ROUX ASSOCIATES
 Sample Vol: 5 ml Date Received: 11/11/88
 Level: Low Date Analyzed: 11/16/88
 % Moisture: not dec: -- Dilution Factor: 1.0
 Column: Pack South Montclair Avenue Landfill
 Groundwater Samples Target Compound List Parameters

C.A.S. Number	Compound	Concentration	Unit: ug/l
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	12	B
67-64-1	Acetone	13	B
75-15-0	Carbon Disulfide	2	J
75-35-4	1,1-Dichloroethene	3	J
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	2	J
67-66-3	Chloroform	4	JB
107-02-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	6	B
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	2	J
10061-02-6	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	2	J
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,1-Trichloroethane	1	J
71-43-2	Benzene	7	
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	3	JB
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	6	B
108-90-7	Chlorobenzene	15	
100-41-4	Ethylbenzene	2	JB
100-42-5	Styrene	2	JB
1330-20-7	Xylene (total)	5	U

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 *

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

Date Reported: 12/27/88

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. Contract: Gibbs & Hill ROUX ASSOC. MW-8
Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____
Matrix: Water Lab Sample ID: 872482
Sample Vol: 5 ml Lab File ID: PU9343
Level: Low Date Received: 11/11/88
% Moisture: Not dec. -- Date Analyzed: 11/16/88
Column: Pack Dilution Factor: 1.0

Number TICs found: 3 Concentration Units: ug/l

CAS	Compound Name	RT	Est.	Q
75718	Dichlorodifluoromethane	2:45	78	JB
629141	1,2-Diethoxyethane	8:57	11	J
	Unknown alkene	13:22	17	JB

Date Reported: 12/27/88

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

ENVIRONMENTAL and INDUSTRIAL ANALYTICAL LABORATORY

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: H2M Labs, Inc. Lab Sample ID: 872483 Sample No. Field Blank
 Lab Code: --- Case No. --- SAS No.: --- SDG No.: ---
 Matrix: Water Lab File ID: PU9344 ROUX ASSOCIATES
 Sample Vol: 5 ml Date Received: 11/11/88
 Level: Low Date Analyzed: 11/16/88
 % Moisture: not dec: -- Dilution Factor: 1.0
 Column: Pack South Montclair Avenue Landfill
 Groundwater Samples Target Compound List Parameters

C.A.S. Number	Compound	Concentration	Unit: ug/l
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	9	B
67-64-1	Acetone	14	B
75-15-0	Carbon Disulfide	1	J
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	1	J
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	3	JB
107-02-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	4	JB
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	2	J
10061-02-6	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	3	J
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	1	J
71-43-2	Benzene	2	J
10061-01-5	trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	1	J
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	2	JB
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	3	JB
108-90-7	Chlorobenzene	2	J
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	1	JB
1330-20-7	Xylene (total)	5	U

 * *John J. Molloy* *

Date Reported: 12/27/88

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

Lab Name: H2M Labs, Inc. Contract: Gibbs & Hill ROUX ASSOC. Field Blk
Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____
Matrix: Water Lab Sample ID: 872483
Sample Vol: 5 ml Lab File ID: PU9344
Level: Low Date Received: 11/11/88
% Moisture: Not dec. -- Date Analyzed: 11/16/88
Column: Pack Dilution Factor: 1.0

Number TICs found: 3 Concentration Units: ug/l

CAS	Compound Name	RT	Est. Conc.	Q
75718	Dichlorodifluoromethane	2:48	14	JB
	Unknown alkene	12:41	6	JB
	Unknown alkene	13:22	19	JB

Date Reported: 12/27/88

* *John J. Molloy* *

John J. Molloy, P.E.
Laboratory Director

ENVIRONMENTAL and INDUSTRIAL ANALYTICAL LABORATORY

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: H2M Labs, Inc. Lab Sample ID: 872484 Sample No. Trip Blank
 Lab Code: --- Case No. ----- SAS No.: ----- SDG No.: -----
 Matrix: Water Lab File ID: PU9361 ROUX ASSOCIATES
 Sample Vol: 5 ml Date Received: 11/11/88
 Level: Low Date Analyzed: 11/16/88
 % Moisture: not dec: -- Dilution Factor: 1.0
 Column: Pack South Montclair Avenue Landfill
 Groundwater Samples Target Compound List Parameters

C.A.S. Number	Compound	Concentration	Unit: ug/l
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	8	JB
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	1	J
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	2	J
107-02-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	8	
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	8	
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Xylene (total)	5	U

 * *John J. Molloy* *

Date Reported: 12/27/88

John J. Molloy, P.E.
 Laboratory Director

H2M LABS, INC.

575 Broad Hollow Road, Melville, N.Y. 117-
(516) 694-3040 FAX: (516) 694-4122

ENVIRONMENTAL and INDUSTRIAL ANALYTICAL LABORATORY

Lab Name: H2M Labs, Inc. Contract: Gibbs & Hill ROUX ASSOC. Trip Blk
Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____
Matrix: Water Lab Sample ID: 872484
Sample Vol: 5 ml Lab File ID: PU9361
Level: Low Date Received: 11/11/88
% Moisture: Not dec. -- Date Analyzed: 11/16/88
Column: Pack Dilution Factor: 1.0

Number TICs found: 3 Concentration Units: ug/l

CAS	Compound Name	RT	Est. Conc.	Q
	Unknown	2:07	87	J
	Unknown alkene	14:04	8	JB
	Unknown alkene	14:36	25	JB

Date Reported: 12/27/88

* *John J. Molloy* *

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.: -----

Matrix: (soil/water) WATER

Lab Sample ID: 872475

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: >P5176

Level: (low/med) LOW

Date Received: 11/11/88

Moisture: not dec.-- dec. --

Date Extracted: 11/14/88

Extraction: (Sepf/Cont/Sonc) SEPF

Date Analyzed: 11/23/88

PC 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
95-57-8	2-Chlorophenol	10.	U
100-51-6	Benzyl alcohol	10.	U
95-48-7	2-Methylphenol	10.	U
106-44-5	4-Methylphenol	10.	U
88-75-5	2-Nitrophenol	10.	U
105-67-9	2,4-Dimethylphenol	10.	U
65-85-0	Benzoic acid	50.	U
120-83-2	2,4-Dichlorophenol	10.	U
59-50-7	4-Chloro-3-methylphenol	10.	U
88-06-2	2,4,6-Trichlorophenol	10.	U
95-95-4	2,4,5-Trichlorophenol	50.	U
51-28-5	2,4-Dinitrophenol	50.	U
100-02-7	4-Nitrophenol	50.	U
534-52-1	4,6-Dinitro-2-methylphenol	50.	U
87-86-5	Pentachlorophenol	50.	U

FORM 1 SU-2

1/87 Rev.

* *JML* *

John J. Molloy, P.E.
Laboratory Director

18
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-1 BN RE

Lab Name: H2M LABS INC.

Contract: -----

Lab Code: ----- Case No.: ----- SAS No.: ----- SDG No.: -----

Matrix: (soil/water) WATER

Lab Sample ID: 872475 BN RE

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: >P5196

Level: (low/med) LOW

Date Received: 11/11/88

Moisture: not dec. -- dec. --

Date Extracted: 11/29/88

Extraction: (Sepf/Cont/Sonc) SEPF

Date Analyzed: 11/30/88


PC Cleanup: (Y/N) N pH: 7.2

Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
111-44-4	bis(2-Chloroethyl)Ether	10.	IU
541-73-1	1,3-Dichlorobenzene	10.	IU
106-46-7	1,4-Dichlorobenzene	10.	IU
95-50-1	1,2-Dichlorobenzene	10.	IU
39638-32-9	bis(2-chloroisopropyl)ether	10.	IU
621-64-7	N-Nitroso-Di-n-propylamine	10.	IU
67-72-1	Hexachloroethane	10.	IU
98-95-3	Nitrobenzene	10.	IU
78-59-1	Isophorone	10.	IU
111-91-1	bis(2-Chloroethoxy)methane	10.	IU
120-82-1	1,2,4-Trichlorobenzene	10.	IU
91-20-3	Naphthalene	10.	IU
106-47-8	4-Chloroaniline	10.	IU
87-68-3	Hexachlorobutadiene	10.	IU
91-57-6	2-Methylnaphthalene	10.	IU
77-47-4	Hexachlorocyclopentadiene	10.	IU
91-58-7	2-Chloronaphthalene	10.	IU
88-74-4	2-Nitroaniline	50.	IU
131-11-3	Dimethylphthalate	10.	IU
208-96-8	Acenaphthylene	10.	IU
606-20-2	2,6-Dinitrotoluene	10.	IU

FORM I SU-1

1/87 Rev.

*  *

John J. Molloy, P.E.
Laboratory Director

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-1 BN RE

Lab Name: H2M LABS INC.

Contract: -----

Lab Code: ----- Case No.: ----- SAS No.: ----- SDG No.: -----

Matrix: (soil/water) WATER

Lab Sample ID: 872475 BN RE

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: >P5196

Level: (low/med) LOW

Date Received: 11/11/88

Moisture: not dec. --- dec. --

Date Extracted: 11/29/88

Extraction: (Sepf/Cont/Sonc) SEPF

Date Analyzed: 11/30/88

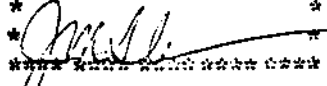
PC Cleanup: (Y/N) N pH: 7.2

Dilution Factor: 1.00000

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

(1) - Cannot be separated from Diphenylamine ****

FORM I SU-2

*

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

1/87 Rev.

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: 872475

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: >P5176

Level: (low/med) LOW

Date Received: 11/11/88

% Moisture: not dec. -- - dec. --

Date Extracted: 11/14/88

Extraction: (Sepf/Cont/Sonc) SEPF

Date Analyzed: 11/23/88

GC Cleanup: (Y/N) N pH: 7.2

Dilution Factor: 1.00000

Number TICs found: 8

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	Unk. Aliphatic Hydrocarbon	35.37	36.	U
2.	Unk. Aliphatic Hydrocarbon	36.33	46.	U
3. 55429840	Tetracosane, 11-decyl- (9CI)	38.17	64.	U
4.	Unk. Aliphatic Hydrocarbon	39.15	52.	U
5. 630079	Pentatriacontane (8CI9CI)	40.25	44.	U
6. 630068	Hexatriacontane (8CI9CI)	41.52	32.	U
7.	Unk. Aliphatic Hydrocarbon	42.97	20.	U
8. 7098228	Tetratetracontane (8CI9CI)	44.70	10.	U
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1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-1 BN RE

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

Lab Code: ----- Case No.: ----- SAS No.: ----- SDG No.: -----

Matrix: (soil/water) WATER Lab Sample ID: 872475 BN RE

Sample wt/vol: 1000 (g/mL) ML Lab File ID: >P5196

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

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

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 11/30/88

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

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	No TIC's Found.			
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*** **
* *John J. Molloy* *
*** **

18
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-2

Lab Name: H2M LABS INC.

Contract: -----

Lab Code: ----- Case No.: ----- SAS No.: ----- SDG No.: -----

Matrix: (soil/water) WATER

Lab Sample ID: 872476

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: >P5177

Level: (low/med) LOW

Date Received: 11/11/88

% Moisture: not dec. -- dec. --

Date Extracted: 11/14/88

Extraction: (Sepf/Cont/Sonc) SEPF

Date Analyzed: 11/23/88

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
111-44-4	bis(2-Chloroethyl)Ether	10.	IU
541-73-1	1,3-Dichlorobenzene	10.	IU
106-46-7	1,4-Dichlorobenzene	10.	IU
95-50-1	1,2-Dichlorobenzene	10.	IU
39638-32-9	bis(2-chloroisopropyl)ether	10.	IU
621-64-7	N-Nitroso-Di-n-propylamine	10.	IU
67-72-1	Hexachloroethane	10.	IU
98-95-3	Nitrobenzene	10.	IU
78-59-1	Isophorone	10.	IU
111-91-1	bis(2-Chloroethoxy)methane	10.	IU
120-82-1	1,2,4-Trichlorobenzene	10.	IU
91-20-3	Naphthalene	10.	IU
106-47-8	4-Chloroaniline	10.	IU
87-68-3	Hexachlorobutadiene	10.	IU
91-57-6	2-Methylnaphthalene	10.	IU
77-47-4	Hexachlorocyclopentadiene	10.	IU
91-58-7	2-Chloronaphthalene	10.	IU
88-74-4	2-Nitroaniline	50.	IU
131-11-3	Dimethylphthalate	10.	IU
208-96-8	Acenaphthylene	10.	IU
606-20-2	2,6-Dinitrotoluene	10.	IU

FORM I SU-1

1/87 Rev.

John J. Molloy

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.: -----

Matrix: (soil/water) WATER

Lab Sample ID: 872476

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: >P5177

Level: (low/med) LOW

Date Received: 11/11/88

% Moisture: not dec. -- dec. --

Date Extracted: 11/14/88

Extraction: (Sepf/Cont/Sonc) SEPF

Date Analyzed: 11/23/88


GPC Cleanup: (Y/N) N pH: 7.2

Dilution Factor: 1.00000

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
99-09-2-----	3-Nitroaniline_____	50.	IU
83-32-9-----	Acenaphthene_____	10.	IU
132-64-9-----	Dibenzofuran_____	10.	IU
121-14-2-----	2,4-Dinitrotoluene_____	10.	IU
84-66-2-----	Diethylphthalate_____	10.	IU
7005-72-3-----	4-Chlorophenyl-phenylether_____	10.	IU
86-73-7-----	Fluorene_____	10.	IU
100-01-6-----	4-Nitroaniline_____	50.	IU
86-30-6-----	N-Nitrosodiphenylamine (1)_____	10.	IU
101-55-3-----	4-Bromophenyl-phenylether_____	10.	IU
118-74-1-----	Hexachlorobenzene_____	10.	IU
85-01-8-----	Phenanthrene_____	10.	IU
120-12-7-----	Anthracene_____	10.	IU
84-74-2-----	Di-n-butylphthalate_____	10.	IU
206-44-0-----	Fluoranthene_____	10.	IU
129-00-0-----	Pyrene_____	10.	IU
85-68-7-----	Butylbenzylphthalate_____	79.	I
91-94-1-----	3,3'-Dichlorobenzidine_____	20.	IU
56-55-3-----	Benzo(a)anthracene_____	10.	IU
218-01-9-----	Chrysene_____	10.	IU
117-81-7-----	bis(2-Ethylhexyl)phthalate_____	10.	I B
117-84-0-----	Di-n-octylphthalate_____	10.	IU
205-99-2-----	Benzo(b)fluoranthene_____	10.	IU
207-08-9-----	Benzo(k)fluoranthene_____	10.	IU
50-32-8-----	Benzo(a)pyrene_____	10.	IU
193-39-5-----	Indeno(1,2,3-cd)pyrene_____	10.	IU
53-70-3-----	Dibenzo(a,h)anthracene_____	10.	IU
191-24-2-----	Benzo(g,h,i)perylene_____	10.	IU

(1) - Cannot be separated from Diphenylamine

*  *
John J. Molloy, P.E.
Director

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-2 AE RE

Lab Name: H2M LABS INC.

Contract: -----

Lab Code: ----- Case No.: ----- SAS No.: ----- SDG No.: -----

Matrix: (soil/water) WATER

Lab Sample ID: 872476 AE RE

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: >P5197

Level: (low/med) LOW

Date Received: 11/11/88

% Moisture: not dec. -- dec. --

Date Extracted: 11/29/88

Extraction: (Sepf/Cont/Sonc) SEPF

Date Analyzed: 11/30/88

GPC Cleanup: (Y/N) N pH: 7.2

Dilution Factor: 1.00000

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

CAS NO.

COMPOUND

Q

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
108-95-2	Phenol	10.	IU
95-57-8	2-Chlorophenol	10.	IU
100-51-6	Benzyl alcohol	10.	IU
95-48-7	2-Methylphenol	10.	IU
106-44-5	4-Methylphenol	10.	IU
88-75-5	2-Nitrophenol	10.	IU
105-67-9	2,4-Dimethylphenol	10.	IU
65-85-0	Benzoic acid	50.	IU
120-83-2	2,4-Dichlorophenol	10.	IU
59-50-7	4-Chloro-3-methylphenol	10.	IU
88-06-2	2,4,6-Trichlorophenol	10.	IU
95-95-4	2,4,5-Trichlorophenol	50.	IU
51-28-5	2,4-Dinitrophenol	50.	IU
100-02-7	4-Nitrophenol	50.	IU
534-52-1	4,6-Dinitro-2-methylphenol	50.	IU
87-86-5	Pentachlorophenol	50.	IU

FORM I SU-2

1/87 Rev.

* * * * *

* *John J. McElroy* *

* * * * *

John J. McElroy, P.E.
Laboratory Director

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: 872476

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: >P5177

Level: (low/med) LOW

Date Received: 11/11/88

% Moisture: not dec. -- dec. --

Date Extracted: 11/14/88

Extraction: (Sepf/Cont/Sonc) SEPF

Date Analyzed: 11/23/88

GPC Cleanup: (Y/N) N pH: 7.2

Dilution Factor: 1.00000

Number TICs found: 11

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	Unknown	11.33	32.	J
2. 21964498	1,13-Tetradecadiene (8CI9CI)	29.67	20.	JB
3. 629992	Pentacosane (8CI9CI)	33.31	8.	J
4. 630024	Octacosane (8CI9CI)	35.37	30.	J
5.	Unk. Aliphatic Hydrocarbon	36.33	38.	J
6. 7098228	Unk. Aliphatic Hydrocarbon	37.27	48.	J
7.	Unk. Aliphatic Hydrocarbon	38.16	48.	J
8.	Unk. Aliphatic Hydrocarbon	39.15	38.	J
9. 630079	Pentatriacontane (8CI9CI)	40.25	32.	J
10.	Unk. Aliphatic Hydrocarbon	41.49	24.	J
11.	Unk. Aliphatic Hydrocarbon	42.96	14.	J
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* *John T. McEvoy* *

John T. McEvoy, P.E.

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-2 AE RE

Lab Name: H2M LABS INC.

Contract: -----

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

Matrix: (soil/water) WATER

Lab Sample ID: 872476 AE RE

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: >P5197

Level: (low/med) LOW

Date Received: 11/11/88

% Moisture: not dec.-- dec. --

Date Extracted: 11/29/88

Extraction: (Sepf/Cont/Sonc) SEPF

Date Analyzed: 11/30/88

GPC Cleanup: (Y/N) N pH: 7.2

Dilution Factor: 1.00000

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	No TIC's Found.			
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*
John I. McLoey
 *

 John I. McLoey, P.E.

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.: -----

Matrix: (soil/water) WATER

Lab Sample ID: 872477

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: >P5178

Level: (low/med) LOW

Date Received: 11/11/88

% Moisture: not dec.-- dec. --

Date Extracted: 11/14/88

Extraction: (Sepf/Cont/Sonc) SEPF

Date Analyzed: 11/24/88

GPC Cleanup: (Y/N) N pH: 7.2

Dilution Factor: 1.00000

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
109-95-2	Phenol	10.	IU
111-44-4	bis(2-Chloroethyl)Ether	10.	IU
95-57-8	2-Chlorophenol	10.	IU
541-73-1	1,3-Dichlorobenzene	10.	IU
106-46-7	1,4-Dichlorobenzene	10.	IU
100-51-6	Benzyl alcohol	10.	IU
95-50-1	1,2-Dichlorobenzene	10.	IU
95-48-7	2-Methylphenol	10.	IU
39638-32-9	bis(2-chloroisopropyl)ether	10.	IU
106-44-5	4-Methylphenol	10.	IU
621-64-7	N-Nitroso-Di-n-propylamine	10.	IU
67-72-1	Hexachloroethane	10.	IU
98-95-3	Nitrobenzene	10.	IU
78-59-1	Isophorone	10.	IU
88-75-5	2-Nitrophenol	10.	IU
105-67-9	2,4-Dimethylphenol	10.	IU
65-85-0	Benzoic acid	50.	IU
111-91-1	bis(2-Chloroethoxy)methane	10.	IU
120-83-2	2,4-Dichlorophenol	10.	IU
120-82-1	1,2,4-Trichlorobenzene	10.	IU
91-20-3	Naphthalene	10.	IU
106-47-8	4-Chloroaniline	10.	IU
87-68-3	Hexachlorobutadiene	10.	IU
59-50-7	4-Chloro-3-methylphenol	10.	IU
91-57-6	2-Methylnaphthalene	10.	IU
77-47-4	Hexachlorocyclopentadiene	10.	IU
88-06-2	2,4,6-Trichlorophenol	10.	IU
95-95-4	2,4,5-Trichlorophenol	50.	IU
91-58-7	2-Chloronaphthalene	10.	IU
88-74-4	2-Nitroaniline	50.	IU
131-11-3	Dimethylphthalate	10.	IU
208-96-8	Acenaphthylene	10.	IU
606-20-2	2,6-Dinitrotoluene	10.	IU

* *John J. Molloy* *

John J. Molloy, I
Laboratory Director

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.: -----

Matrix: (soil/water) WATER

Lab Sample ID: 872477

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: >P5178

Level: (low/med) LDW

Date Received: 11/11/88

% Moisture: not dec.-- dec. --

Date Extracted: 11/14/88

Extraction: (Sepf/Cont/Sonc) SEPF

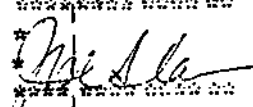
Date Analyzed: 11/24/88

GPC Cleanup: (Y/N) N pH: 7.2

Dilution Factor: 1.00000

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
99-09-2-----	3-Nitroaniline	50.	IU
83-32-9-----	Acenaphthene	10.	IU
51-28-5-----	2,4-Dinitrophenol	50.	IU
100-02-7-----	4-Nitrophenol	50.	IU
132-64-9-----	Dibenzofuran	10.	IU
121-14-2-----	2,4-Dinitrotoluene	10.	IU
84-66-2-----	Diethylphthalate	10.	IU
7005-72-3-----	4-Chlorophenyl-phenylether	10.	IU
86-73-7-----	Fluorene	10.	IU
100-01-6-----	4-Nitroaniline	50.	IU
534-52-1-----	4,6-Dinitro-2-methylphenol	50.	IU
86-30-6-----	N-Nitrosodiphenylamine (1)	10.	IU
101-55-3-----	4-Bromophenyl-phenylether	10.	IU
118-74-1-----	Hexachlorobenzene	10.	IU
87-86-5-----	Pentachlorophenol	50.	IU
85-01-8-----	Phenanthrene	10.	IU
120-12-7-----	Anthracene	10.	IU
84-74-2-----	Di-n-butylphthalate	10.	IU
206-44-0-----	Fluoranthene	10.	IU
129-00-0-----	Pyrene	10.	IU
85-68-7-----	Butylbenzylphthalate	75.	I
91-94-1-----	3,3'-Dichlorobenzidine	20.	IU
56-55-3-----	Benzo(a)anthracene	10.	IU
218-01-9-----	Chrysene	10.	IU
117-81-7-----	bis(2-Ethylhexyl)phthalate	16.	B
117-84-0-----	Di-n-octylphthalate	10.	IU
205-99-2-----	Benzo(b)fluoranthene	10.	IU
207-08-9-----	Benzo(k)fluoranthene	10.	IU
50-32-8-----	Benzo(a)pyrene	10.	IU
193-39-5-----	Indeno(1,2,3-cd)pyrene	10.	IU
53-70-3-----	Dibenzo(a,h)anthracene	10.	IU
191-24-2-----	Benzo(g,h,i)perylene	10.	IU


 John J. Molloy,
 Laboratory Director

(1) - Cannot be separated from Diphenylamine

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: 872477

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: >P5178

Level: (low/med) LOW

Date Received: 11/11/88

% Moisture: not dec. -- dec. --

Date Extracted: 11/14/88

Extraction: (Sepf/Cont/Sonc) SEPF

Date Analyzed: 11/24/88

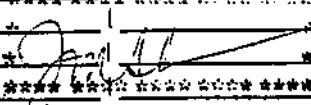
GPC Cleanup: (Y/N) N pH: 7.2

Dilution Factor: 1.00000

Number TICs found: 12

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	Unknown	11.35	52.	J
2.	21368683 Bicyclo[2.2.1]heptan-2-one,	15.16	10.	J
3.	Unknown	29.67	14.	J
4.	630024 Octacosane (8CI9CI)	35.37	44.	J
5.	630035 Nonacosane (8CI9CI)	36.35	62.	J
6.	Unk. Aliphatic Hydrocarbon	37.27	100.	J
7.	Unk. Aliphatic Hydrocarbon	38.19	100.	J
8.	Unk. Aliphatic Hydrocarbon	39.17	88.	J
9.	630079 Pentatriacontane (8CI9CI)	40.26	78.	J
10.	630068 Hexatriacontane (8CI9CI)	41.52	58.	J
11.	Unk. Aliphatic Hydrocarbon	42.99	38.	J
12.	Unk. Aliphatic Hydrocarbon	44.73	22.	J
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 **** *
 John J. Molloy, P.E.

18
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-4

Lab Name: H2M LABS INC.

Contract: -----

Lab Code: ----- Case No.: ----- SAS No.: ----- SDG No.: -----

Matrix: (soil/water) WATER

Lab Sample ID: 872478

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: >P5179

Level: (low/med) LOW

Date Received: 11/11/88

% Moisture: not dec. -- dec. --

Date Extracted: 11/14/88

Extraction: (Sepf/Cont/Sonc) SEPF

Date Analyzed: 11/24/88

PC 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.	IU
111-44-4	bis(2-Chloroethyl)Ether	10.	IU
95-57-8	2-Chlorophenol	10.	IU
541-73-1	1,3-Dichlorobenzene	10.	IU
106-46-7	1,4-Dichlorobenzene	10.	IU
100-51-6	Benzyl alcohol	10.	IU
95-50-1	1,2-Dichlorobenzene	10.	IU
95-48-7	2-Methylphenol	10.	IU
39638-32-9	bis(2-chloroisopropyl)ether	10.	IU
106-44-5	4-Methylphenol	10.	IU
621-64-7	N-Nitroso-Di-n-propylamine	10.	IU
67-72-1	Hexachloroethane	10.	IU
98-95-3	Nitrobenzene	10.	IU
78-59-1	Isophorone	10.	IU
88-75-5	2-Nitrophenol	10.	IU
105-67-9	2,4-Dimethylphenol	10.	IU
65-85-0	Benzoic acid	50.	IU
111-91-1	bis(2-Chloroethoxy)methane	10.	IU
120-83-2	2,4-Dichlorophenol	10.	IU
120-82-1	1,2,4-Trichlorobenzene	10.	IU
91-20-3	Naphthalene	10.	IU
106-47-8	4-Chloroaniline	10.	IU
87-68-3	Hexachlorobutadiene	10.	IU
59-50-7	4-Chloro-3-methylphenol	10.	IU
91-57-6	2-Methylnaphthalene	10.	IU
77-47-4	Hexachlorocyclopentadiene	10.	IU
88-06-2	2,4,6-Trichlorophenol	10.	IU
95-95-4	2,4,5-Trichlorophenol	50.	IU
91-58-7	2-Chloronaphthalene	10.	IU
88-74-4	2-Nitroaniline	50.	IU
131-11-3	Dimethylphthalate	10.	IU
208-96-8	Acenaphthylene	10.	IU
606-20-2	2,6-Dinitrotoluene	10.	IU

John J. Molloy
John J. Molloy, PE

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.: -----

Matrix: (soil/water) WATER

Lab Sample ID: 872478

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: >P5179

Level: (low/med) LOW

Date Received: 11/11/88

% Moisture: not dec. -- dec. --

Date Extracted: 11/14/88

Extraction: (Sepf/Cont/Sonc) SEPF

Date Analyzed: 11/24/88

PC Cleanup: (Y/N) N pH: 7.2

Dilution Factor: 1.00000

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
99-09-2	3-Nitroaniline	50.	IU
83-32-9	Acenaphthene	10.	IU
51-28-5	2,4-Dinitrophenol	50.	IU
100-02-7	4-Nitrophenol	50.	IU
132-64-9	Dibenzofuran	10.	IU
121-14-2	2,4-Dinitrotoluene	10.	IU
84-66-2	Diethylphthalate	10.	IU
7005-72-3	4-Chlorophenyl-phenylether	10.	IU
86-73-7	Fluorene	10.	IU
100-01-6	4-Nitroaniline	50.	IU
534-52-1	4,6-Dinitro-2-methylphenol	50.	IU
86-30-6	N-Nitrosodiphenylamine (1)	10.	IU
101-55-3	4-Bromophenyl-phenylether	10.	IU
118-74-1	Hexachlorobenzene	10.	IU
87-86-5	Pentachlorophenol	50.	IU
85-01-8	Phenanthrene	10.	IU
120-12-7	Anthracene	10.	IU
84-74-2	Di-n-butylphthalate	10.	IU
206-44-0	Fluoranthene	10.	IU
129-00-0	Pyrene	10.	IU
85-68-7	Butylbenzylphthalate	77.	I
91-94-1	3,3'-Dichlorobenzidine	20.	IU
56-55-3	Benzo(a)anthracene	10.	IU
218-01-9	Chrysene	10.	IU
117-81-7	bis(2-Ethylhexyl)phthalate	8.	IJB
117-84-0	Di-n-octylphthalate	10.	IU
205-99-2	Benzo(b)fluoranthene	10.	IU
207-08-9	Benzo(k)fluoranthene	10.	IU
50-32-8	Benzo(a)pyrene	10.	IU
193-39-5	Indeno(1,2,3-cd)pyrene	10.	IU
53-70-3	Dibenzo(a,h)anthracene	10.	IU
191-24-2	Benzo(g,h,i)perylene	10.	IU

(1) - Cannot be separated from Diphenylamine *

James

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

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: 872478

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: >P5179

Level: (low/med) LOW

Date Received: 11/11/88

% Moisture: not dec. -- dec. --

Date Extracted: 11/14/88

Extraction: (Sepf/Cont/Sonc) SEPF

Date Analyzed: 11/24/88

PC Cleanup: (Y/N) N pH: 7.2

Dilution Factor: 1.00000

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

Number TICs found: 11

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 934349	2(3H)-Benzothiazolone (9CI)	24.32	10.	13
2.	Unknown	26.94	28.	13
3.	Unknown Alkane	35.37	40.	13
4.	Unknown	36.35	54.	13
5.	Unk. Aliphatic Hydrocarbon	37.28	70.	13
6. 7225641	19-octyl-Heptadecane (8CI9CI)	38.18	72.	13
7.	Unk. Aliphatic Hydrocarbon	39.16	60.	13
8.	Unk. Aliphatic Hydrocarbon	40.27	52.	13
9. 630068	Hexatriacontane (8CI9CI)	41.52	40.	13
10.	Unk. Aliphatic Hydrocarbon	42.99	26.	13
11.	Unk. Aliphatic Hydrocarbon	44.72	16.	13
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1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-5

Lab Name: H2M LABS INC.

Contract: -----

Lab Code: ----- Case No.: ----- SAS No.: ----- SDG No.: -----

Matrix: (soil/water) WATER Lab Sample ID: 872479

Sample wt/vol: 1000 (g/mL) ML Lab File ID: >P5180

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

% Moisture: not dec.-- dec. -- Date Extracted: 11/14/88

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 11/24/88

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

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

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

**** **

John J. Molloy

**** **

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-5

Lab Name: H2M LABS INC.

Contract: -----

Lab Code: ----- Case No.: ----- SAS No.: ----- SDG No.: -----

Matrix: (soil/water) WATER

Lab Sample ID: 872479

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: >P5180

Level: (low/med) LOW

Date Received: 11/11/88

% Moisture: not dec. -- dec. --

Date Extracted: 11/14/88

Extraction: (Sepf/Cont/Sonc) SEPF


Date Analyzed: 11/24/88

PC 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.	IU
83-32-9	Acenaphthene	10.	IU
51-28-5	2,4-Dinitrophenol	50.	IU
100-02-7	4-Nitrophenol	50.	IU
132-64-9	Dibenzofuran	10.	IU
121-14-2	2,4-Dinitrotoluene	10.	IU
84-66-2	Diethylphthalate	10.	IU
7005-72-3	4-Chlorophenyl-phenylether	10.	IU
86-73-7	Fluorene	10.	IU
100-01-6	4-Nitroaniline	50.	IU
534-52-1	4,6-Dinitro-2-methylphenol	50.	IU
86-30-6	N-Nitrosodiphenylamine (1)	10.	IU
101-55-3	4-Bromophenyl-phenylether	10.	IU
118-74-1	Hexachlorobenzene	10.	IU
87-86-5	Pentachlorophenol	50.	IU
85-01-8	Phenanthrene	10.	IU
120-12-7	Anthracene	10.	IU
84-74-2	Di-n-butylphthalate	10.	IU
206-44-0	Fluoranthene	10.	IU
129-00-0	Pyrene	10.	IU
85-68-7	Butylbenzylphthalate	10.	IU
91-94-1	3,3'-Dichlorobenzidine	20.	IU
56-55-3	Benzo(a)anthracene	10.	IU
218-01-9	Chrysene	10.	IU
117-81-7	bis(2-Ethylhexyl)phthalate	20.	I B
117-84-0	Di-n-octylphthalate	10.	IU
205-99-2	Benzo(b)fluoranthene	10.	IU
207-08-9	Benzo(k)fluoranthene	10.	IU
50-32-8	Benzo(a)pyrene	10.	IU
193-39-5	Indeno(1,2,3-cd)pyrene	10.	IU
53-70-3	Dibenzo(a,h)anthracene	10.	IU
191-24-2	Benzo(g,h,i)perylene	10.	IU

(1) - Cannot be separated from Diphenylamine



1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-5

Lab Name: H2M LABS INC.

Contract: -----

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

Matrix: (soil/water) WATER

Lab Sample ID: 872479

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: >P5180

Level: (low/med) LOW

Date Received: 11/11/88

% Moisture: not dec. -- dec. --

Date Extracted: 11/14/88

Extraction: (Sepf/Cont/Sonc) SEPF

Date Analyzed: 11/24/88

PC Cleanup: (Y/N) N pH: 7.2

Dilution Factor: 1.00000

Number TICs found: 4

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 585342	Phenol, 3-(1,1-dimethylethyl)	19.05	28.	J
2. 934349	2(3H)-Benzothiazolone (9CI)	24.39	44.	J
3. 80397	Benzenesulfonamide, N-ethyl-	24.98	10.	J
4. 21964498	1,13-Tetradecadiene (8CI9CI)	29.50	10.	JB
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* *John J. Molloy* *

18
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-6

Lab Name: H2M LABS INC.

Contract: -----

Lab Code: ----- Case No.: ----- SAS No.: ----- SDG No.: -----

Matrix: (soil/water) WATER

Lab Sample ID: 872480

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: >P5181

Level: (low/med) LOW

Date Received: 11/11/88

% Moisture: not dec. -- dec. --

Date Extracted: 11/14/88

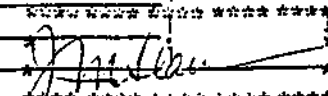
Extraction: (Sepf/Cont/Sonc) SEPF

Date Analyzed: 11/24/88

PC 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.	IU
111-44-4	bis(2-Chloroethyl)Ether	10.	IU
95-57-8	2-Chlorophenol	10.	IU
541-73-1	1,3-Dichlorobenzene	10.	IU
106-46-7	1,4-Dichlorobenzene	10.	IU
100-51-6	Benzyl alcohol	10.	IU
95-50-1	1,2-Dichlorobenzene	10.	IU
95-48-7	2-Methylphenol	10.	IU
39638-32-9	bis(2-chloroisopropyl)ether	10.	IU
106-44-5	4-Methylphenol	10.	IU
621-64-7	N-Nitroso-Di-n-propylamine	10.	IU
67-72-1	Hexachloroethane	10.	IU
98-95-3	Nitrobenzene	10.	IU
78-59-1	Isophorone	10.	IU
88-75-5	2-Nitrophenol	10.	IU
105-67-9	2,4-Dimethylphenol	10.	IU
65-85-0	Benzoic acid	50.	IU
111-91-1	bis(2-Chloroethoxy)methane	10.	IU
120-83-2	2,4-Dichlorophenol	10.	IU
120-82-1	1,2,4-Trichlorobenzene	10.	IU
91-20-3	Naphthalene	10.	IU
106-47-8	4-Chloroaniline	10.	IU
87-68-3	Hexachlorobutadiene	10.	IU
59-50-7	4-Chloro-3-methylphenol	10.	IU
91-57-6	2-Methylnaphthalene	10.	IU
77-47-4	Hexachlorocyclopentadiene	10.	IU
88-06-2	2,4,6-Trichlorophenol	10.	IU
95-95-4	2,4,5-Trichlorophenol	50.	IU
91-58-7	2-Chloronaphthalene	10.	IU
88-74-4	2-Nitroaniline	50.	IU
131-11-3	Dimethylphthalate	10.	IU
208-96-8	Acenaphthylene	10.	IU
606-20-2	2,6-Dinitrotoluene	10.	IU


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1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-6

Lab Name: H2M LABS INC.

Contract: -----

Lab Code: ----- Case No.: ----- SAS No.: ----- SDG No.: -----

Matrix: (soil/water) WATER

Lab Sample ID: 872480

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: >P5181

Level: (low/med) LOW

Date Received: 11/11/88

% Moisture: not dec. -- dec. --

Date Extracted: 11/14/88

Extraction: (Sepf/Cont/Sonc) SEPF

Date Analyzed: 11/24/88

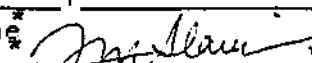
PC Cleanup: (Y/N) N pH: 7.2

Dilution Factor: 1.00000

CAS NO. COMPOUND CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/L Q

99-09-2-----	3-Nitroaniline	50.	IU
83-32-9-----	Acenaphthene	10.	IU
51-28-5-----	2,4-Dinitrophenol	50.	IU
100-02-7-----	4-Nitrophenol	50.	IU
132-64-9-----	Dibenzofuran	10.	IU
121-14-2-----	2,4-Dinitrotoluene	10.	IU
84-66-2-----	Diethylphthalate	10.	IU
7005-72-3-----	4-Chlorophenyl-phenylether	10.	IU
86-73-7-----	Fluorene	10.	IU
100-01-6-----	4-Nitroaniline	50.	IU
534-52-1-----	4,6-Dinitro-2-methylphenol	50.	IU
86-30-6-----	N-Nitrosodiphenylamine (1)	10.	IU
101-55-3-----	4-Bromophenyl-phenylether	10.	IU
118-74-1-----	Hexachlorobenzene	10.	IU
87-86-5-----	Pentachlorophenol	50.	IU
85-01-8-----	Phenanthrene	10.	IU
120-12-7-----	Anthracene	10.	IU
84-74-2-----	Di-n-butylphthalate	10.	IU
206-44-0-----	Fluoranthene	10.	IU
129-00-0-----	Pyrene	10.	IU
85-68-7-----	Butylbenzylphthalate	10.	IU
91-94-1-----	3,3'-Dichlorobenzidine	20.	IU
56-55-3-----	Benzo(a)anthracene	10.	IU
218-01-9-----	Chrysene	10.	IU
117-81-7-----	bis(2-Ethylhexyl)phthalate	8.	IJB
117-84-0-----	Di-n-octylphthalate	10.	IU
205-99-2-----	Benzo(b)fluoranthene	10.	IU
207-08-9-----	Benzo(k)fluoranthene	10.	IU
50-32-8-----	Benzo(a)pyrene	10.	IU
193-39-5-----	Indeno(1,2,3-cd)pyrene	10.	IU
53-70-3-----	Dibenzo(a,h)anthracene	10.	IU
191-24-2-----	Benzo(g,h,i)perylene	10.	IU

(1) - Cannot be separated from Diphenylamine


 John J. Moiloy, P.E.

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-6

Lab Name: H2M LABS INC.

Contract: -----

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

Matrix: (soil/water) WATER

Lab Sample ID: 872490

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: >P5181

Level: (low/med) LOW

Date Received: 11/11/88

% Moisture: not dec. -- dec. --

Date Extracted: 11/14/88

Extraction: (Sepf/Cont/Sonc) SEPF

Date Analyzed: 11/24/88

TPC Cleanup: (Y/N) N pH: 7.2

Dilution Factor: 1.00000

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

Number TICs found: 8

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 585342	Phenol, 3-(1,1-dimethylethyl)	18.05	32.	J
2. 134623	Benzamide, N,N-diethyl-3-met	22.95	10.	J
3. 934349	2(3H)-Benzothiazolone (9CI)	24.39	34.	J
4.	Unknown Alcohol	24.73	10.	J
5. 80397	Benzenesulfonamide, N-ethyl-	25.00	10.	J
6.	Unknown	26.25	10.	J
7.	Unknown	26.90	14.	J
8. 21964498	1,13-Tetradecadiene (8CI9CI)	29.49	24.	JB
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18
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-7

Lab Name: H2M LABS INC.

Contract: -----

Lab Code: ----- Case No.: ----- SAS No.: ----- SDG No.: -----

Matrix: (soil/water) WATER

Lab Sample ID: 872481

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: >P5198

Level: (low/med) LOW

Date Received: 11/11/88

% Moisture: not dec. -- dec. --

Date Extracted: 11/14/88

Extraction: (Sepf/Cont/Sonc) SEPF

Date Analyzed: 11/30/88

PC Cleanup: (Y/N) N pH: 7.2

Dilution Factor: 1.00000

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

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

John J. Molloy

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-7

Lab Name: H2M LABS INC.

Contract: -----

Lab Code: ----- Case No.: ----- SAS No.: ----- SDG No.: -----

Matrix: (soil/water) WATER

Lab Sample ID: 872481

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: >P5198

Level: (low/med) LOW

Date Received: 11/11/88

% Moisture: not dec. -- dec. --

Date Extracted: 11/14/88

Extraction: (Sepf/Cont/Sonc) SEPF

Date Analyzed: 11/30/88

SPC 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.	IU
83-32-9	Acenaphthene	10.	IU
51-28-5	2,4-Dinitrophenol	50.	IU
100-02-7	4-Nitrophenol	50.	IU
132-64-9	Dibenzofuran	10.	IU
121-14-2	2,4-Dinitrotoluene	10.	IU
84-66-2	Diethylphthalate	10.	IU
7005-72-3	4-Chlorophenyl-phenylether	10.	IU
86-73-7	Fluorene	10.	IU
100-01-6	4-Nitroaniline	50.	IU
534-52-1	4,6-Dinitro-2-methylphenol	50.	IU
86-30-6	N-Nitrosodiphenylamine (1)	10.	IU
101-55-3	4-Bromophenyl-phenylether	10.	IU
118-74-1	Hexachlorobenzene	10.	IU
87-86-5	Pentachlorophenol	50.	IU
85-01-8	Phenanthrene	10.	IU
120-12-7	Anthracene	10.	IU
84-74-2	Di-n-butylphthalate	10.	IU
206-44-0	Fluoranthene	10.	IU
129-00-0	Pyrene	10.	IU
85-68-7	Butylbenzylphthalate	10.	IU
91-94-1	3,3'-Dichlorobenzidine	20.	IU
56-55-3	Benzo(a)anthracene	10.	IU
218-01-9	Chrysene	10.	IU
117-81-7	bis(2-Ethylhexyl)phthalate	47.	I B
117-84-0	Di-n-octylphthalate	10.	IU
205-99-2	Benzo(b)fluoranthene	10.	IU
207-08-9	Benzo(k)fluoranthene	10.	IU
50-32-8	Benzo(a)pyrene	10.	IU
193-39-5	Indeno(1,2,3-cd)pyrene	10.	IU
53-70-3	Dibenzo(a,h)anthracene	10.	IU
191-24-2	Benzo(g,h,i)perylene	10.	IU

(1) - Cannot be separated from Diphenylamine

John J. Molloy
John J. Molloy, P.E.

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-7.

Lab Name: H2M LABS INC.

Contract: -----

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

Matrix: (soil/water) WATER

Lab Sample ID: 872481

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: >P5198

Level: (low/med) LOW

Date Received: 11/11/88

% Moisture: not dec. -- dec. --

Date Extracted: 11/14/88

Extraction: (Sepf/Cont/Sonc) SEPF

Date Analyzed: 11/30/88

GC 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. 21964498	1,13-Tetradecadiene (8CI9CI)	29.95	12.	JB
2.				
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* *John J. Molloy* *

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-8

Lab Name: H2M LABS INC.

Contract: -----

Lab Code: ----- Case No.: ----- SAS No.: ----- SDG No.: -----

Matrix: (soil/water) WATER

Lab Sample ID: 872482

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: >P5201

Level: (low/med) LOW

Date Received: 11/11/88

* Moisture: not dec. -- dec. --

Date Extracted: 11/14/88

Extraction: (Sepf/Cont/Sonc) SEPF

Date Analyzed: 12/01/88

PC 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.	IU
111-44-4	bis(2-Chloroethyl)Ether	10.	IU
95-57-8	2-Chlorophenol	10.	IU
541-73-1	1,3-Dichlorobenzene	10.	IU
106-46-7	1,4-Dichlorobenzene	6.	IJ
100-51-6	Benzyl alcohol	10.	IU
95-50-1	1,2-Dichlorobenzene	10.	IU
95-48-7	2-Methylphenol	10.	IU
39638-32-9	bis(2-chloroisopropyl)ether	10.	IU
106-44-5	4-Methylphenol	10.	IU
621-64-7	N-Nitroso-Di-n-propylamine	10.	IU
67-72-1	Hexachloroethane	10.	IU
98-95-3	Nitrobenzene	10.	IU
78-59-1	Isophorone	10.	IU
88-75-5	2-Nitrophenol	10.	IU
105-67-9	2,4-Dimethylphenol	10.	IU
65-85-0	Benzoic acid	50.	IU
111-91-1	bis(2-Chloroethoxy)methane	10.	IU
120-83-2	2,4-Dichlorophenol	10.	IU
120-82-1	1,2,4-Trichlorobenzene	10.	IU
91-20-3	Naphthalene	10.	IU
106-47-8	4-Chloroaniline	10.	IU
87-68-3	Hexachlorobutadiene	10.	IU
59-50-7	4-Chloro-3-methylphenol	10.	IU
91-57-6	2-Methylnaphthalene	10.	IU
77-47-4	Hexachlorocyclopentadiene	10.	IU
88-06-2	2,4,6-Trichlorophenol	10.	IU
95-95-4	2,4,5-Trichlorophenol	50.	IU
91-58-7	2-Chloronaphthalene	10.	IU
88-74-4	2-Nitroaniline	50.	IU
131-11-3	Dimethylphthalate	10.	IU
208-96-8	Acenaphthylene	10.	IU
606-20-2	2,6-Dinitrotoluene	10.	IU

* *John J. Molloy* *
*** **

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-8

Lab Name: H2M LABS INC.

Contract: -----

Lab Code: ----- Case No.: ----- SAS No.: ----- SDG No.: -----

Matrix: (soil/water) WATER

Lab Sample ID: 872482

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: >P5201

Level: (low/med) LOW

Date Received: 11/11/88

* Moisture: not dec.-- dec. --

Date Extracted: 11/14/88

Extraction: (Sepf/Cont/Sonc) SEPF

Date Analyzed: 12/01/88

PC 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.	IU
83-32-9	Acenaphthene	10.	IU
51-28-5	2,4-Dinitrophenol	50.	IU
100-02-7	4-Nitrophenol	50.	IU
132-64-9	Dibenzofuran	10.	IU
121-14-2	2,4-Dinitrotoluene	10.	IU
84-66-2	Diethylphthalate	10.	IU
7005-72-3	4-Chlorophenyl-phenylether	10.	IU
86-73-7	Fluorene	10.	IU
100-01-6	4-Nitroaniline	50.	IU
534-52-1	4,6-Dinitro-2-methylphenol	50.	IU
86-30-6	N-Nitrosodiphenylamine (1)	10.	IU
101-55-3	4-Bromophenyl-phenylether	10.	IU
118-74-1	Hexachlorobenzene	10.	IU
87-86-5	Pentachlorophenol	50.	IU
85-01-8	Phenanthrene	10.	IU
120-12-7	Anthracene	10.	IU
84-74-2	Di-n-butylphthalate	10.	IU
206-44-0	Fluoranthene	10.	IU
129-00-0	Pyrene	10.	IU
85-68-7	Butylbenzylphthalate	10.	IU
91-94-1	3,3'-Dichlorobenzidine	20.	IU
56-55-3	Benzo(a)anthracene	10.	IU
218-01-9	Chrysene	10.	IU
117-81-7	bis(2-Ethylhexyl)phthalate	6.	IJB
117-84-0	Di-n-octylphthalate	10.	IU
205-99-2	Benzo(b)fluoranthene	10.	IU
207-08-9	Benzo(k)fluoranthene	10.	IU
50-32-8	Benzo(a)pyrene	10.	IU
193-39-5	Indeno(1,2,3-cd)pyrene	10.	IU
53-70-3	Dibenzo(a,h)anthracene	10.	IU
191-24-2	Benzo(g,h,i)perylene	10.	IU

(1) - Cannot be separated from Diphenylamine

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

Lab Name: H2M LABS INC.

Contract: -----

MW-8

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

Matrix: (soil/water) WATER

Lab Sample ID: 872482

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: >P5201

Level: (low/med) LOW

Date Received: 11/11/88

% Moisture: not dec. -- dec. --

Date Extracted: 11/14/88

Extraction: (Sepf/Cont/Sonc) SEPF

Date Analyzed: 12/01/88

PC Cleanup: (Y/N) N pH: 7.2

Dilution Factor: .50000

Number TICs found: 8

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 585342	Phenol, 3-(1,1-dimethylethyl)	18.08	32.	U
2. 134623	Benzamide, N,N-diethyl-3-met	22.96	10.	U
3. 934349	2(3H)-Benzothiazolone (9CI)	24.39	38.	U
4.	Unknown	24.74	10.	U
5. 80397	Benzenesulfonamide, N-ethyl-	25.00	8.	U
6.	Unknown	26.25	12.	U
7. 700732	3-Pyridinemethanol, 4,5-dihy	26.91	16.	U
8.	Unknown	33.51	10.	U
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* *John J. Molloy* *

18
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

FIELD BLANK

Lab Name: H2M LABS INC.

Contract: -----

Lab Code: ----- Case No.: ----- SAS No.: ----- SDG No.: -----

Matrix: (soil/water) WATER

Lab Sample ID: 872483

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: >P5202

Level: (low/med) LOW

Date Received: 11/11/88

% Moisture: not dec. -- dec. --

Date Extracted: 11/14/88

Extraction: (Sepf/Cont/Sonc) SEPF

Date Analyzed: 12/01/88

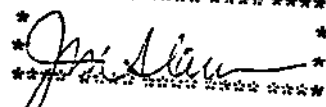
PC Cleanup: (Y/N) N pH: 7.2

Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L		Q
108-95-2	Phenol	10.	1U	
95-57-8	2-Chlorophenol	10.	1U	
100-51-6	Benzyl alcohol	10.	1U	
95-48-7	2-Methylphenol	10.	1U	
106-44-5	4-Methylphenol	10.	1U	
88-75-5	2-Nitrophenol	10.	1U	
105-67-9	2,4-Dimethylphenol	10.	1U	
65-85-0	Benzoic acid	50.	1U	
120-83-2	2,4-Dichlorophenol	10.	1U	
59-50-7	4-Chloro-3-methylphenol	10.	1U	
88-06-2	2,4,6-Trichlorophenol	10.	1U	
95-95-4	2,4,5-Trichlorophenol	50.	1U	
51-28-5	2,4-Dinitrophenol	50.	1U	
100-02-7	4-Nitrophenol	50.	1U	
534-52-1	4,6-Dinitro-2-methylphenol	50.	1U	
87-86-5	Pentachlorophenol	50.	1U	

FORM I SU-2

1/87 Rev.



 John J. Molloy, P.E.
 Laboratory Director

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

F. BLK BN RE

Lab Name: H2M LABS INC.

Contract: -----

Lab Code: ----- Case No.: ----- SAS No.: ----- SDG No.: -----

Matrix: (soil/water) WATER

Lab Sample ID: 872483 BN RE

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: >P5224

Level: (low/med) LOW

Date Received: 11/11/88

% Moisture: not dec. -- dec. --

Date Extracted: 12/01/88

Extraction: (Sepf/Cont/Sonc) SEPF

Date Analyzed: 12/02/88

GC Cleanup: (Y/N) N pH: 7.2

Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
111-44-4	bis(2-Chloroethyl)Ether	10.	IU
541-73-1	1,3-Dichlorobenzene	10.	IU
106-46-7	1,4-Dichlorobenzene	10.	IU
95-50-1	1,2-Dichlorobenzene	10.	IU
39638-32-9	bis(2-chloroisopropyl)ether	10.	IU
621-64-7	N-Nitroso-Di-n-propylamine	10.	IU
67-72-1	Hexachloroethane	10.	IU
98-95-3	Nitrobenzene	10.	IU
78-59-1	Isophorone	10.	IU
111-91-1	bis(2-Chloroethoxy)methane	10.	IU
120-82-1	1,2,4-Trichlorobenzene	10.	IU
91-20-3	Naphthalene	10.	IU
106-47-8	4-Chloroaniline	10.	IU
87-68-3	Hexachlorobutadiene	10.	IU
91-57-6	2-Methylnaphthalene	10.	IU
77-47-4	Hexachlorocyclopentadiene	10.	IU
91-58-7	2-Chloronaphthalene	10.	IU
88-74-4	2-Nitroaniline	50.	IU
131-11-3	Dimethylphthalate	10.	IU
208-96-8	Acenaphthylene	10.	IU
606-20-2	2,6-Dinitrotoluene	10.	IU

FORM I SU-1

1/87 Rev.

John J. Molloy

 John J. Molloy, P.E.
 Laboratory Director

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

F. BLK BN RE

Lab Name: H2M LABS INC.

Contract: -----

Lab Code: ----- Case No.: ----- SAS No.: ----- SDG No.: -----

Matrix: (soil/water) WATER

Lab Sample ID: 872483 BN RE

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: >P5224

Level: (low/med) LDW

Date Received: 11/11/88

% Moisture: not dec. -- dec. --

Date Extracted: 12/01/88

Extraction: (Sepf/Cont/Sonc) SEPF

Date Analyzed: 12/02/88


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.	IU
83-32-9	Acenaphthene	10.	IU
132-64-9	Dibenzofuran	10.	IU
121-14-2	2,4-Dinitrotoluene	10.	IU
84-66-2	Diethylphthalate	10.	IU
7005-72-3	4-Chlorophenyl-phenylether	10.	IU
86-73-7	Fluorene	10.	IU
100-01-6	4-Nitroaniline	50.	IU
86-30-6	N-Nitrosodiphenylamine (1)	10.	IU
101-55-3	4-Bromophenyl-phenylether	10.	IU
118-74-1	Hexachlorobenzene	10.	IU
85-01-8	Phenanthrene	10.	IU
120-12-7	Anthracene	10.	IU
84-74-2	Di-n-butylphthalate	10.	IU
206-44-0	Fluoranthene	10.	IU
129-00-0	Pyrene	10.	IU
85-68-7	Butylbenzylphthalate	10.	IU
91-94-1	3,3'-Dichlorobenzidine	20.	IU
56-55-3	Benzo(a)anthracene	10.	IU
218-01-9	Chrysene	10.	IU
117-81-7	bis(2-Ethylhexyl)phthalate	40.	I B
117-84-0	Di-n-octylphthalate	10.	IU
205-99-2	Benzo(b)fluoranthene	10.	IU
207-08-9	Benzo(k)fluoranthene	10.	IU
50-32-8	Benzo(a)pyrene	10.	IU
193-39-5	Indeno(1,2,3-cd)pyrene	10.	IU
53-70-3	Dibenzo(a,h)anthracene	10.	IU
191-24-2	Benzo(g,h,i)perylene	10.	IU

(1) - Cannot be separated from Diphenylamine

FORM I SU-2

*  * 1/87 Rev.

John J. Molloy, P.E.
Laboratory Director

1F
 SEMI-VOLATILE 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: 872483

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: >P5202

Level: (low/med) LOW

Date Received: 11/11/88

% Moisture: not dec. -- dec. --

Date Extracted: 11/14/88

Extraction: (Sepf/Cont/Sonc) SEPF

Date Analyzed: 12/01/88

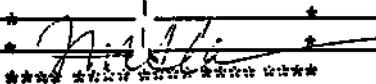
GC Cleanup: (Y/N) N pH: 7.2

Dilution Factor: .50000

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	No TIC's Found.			
2.				
3.				
4.				
5.				
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 John J. Molloy, P.E.

1F
 SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
 TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

F. BLK BN RE

Lab Name: H2M LABS INC.

Contract: -----

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

Matrix: (soil/water) WATER

Lab Sample ID: 872483 BN RE

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: >P5224

Level: (low/med) LOW

Date Received: 11/11/88

Moisture: not dec. --- dec. --

Date Extracted: 12/01/88

Extraction: (Sepf/Cont/Sonc) SEPF

Date Analyzed: 12/02/88

PC Cleanup: (Y/N) N pH: 7.2

Dilution Factor: .50000

Number TICs found: 2

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	Unknown	9.42	<i>GKB</i> 13.25	J
2.	Unknown	40.69	4.8	J
3.				
4.				
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30.				

John J. Molloy
 John J. Molloy, P.E.

ENVIRONMENTAL and INDUSTRIAL ANALYTICAL LABORATORY**INORGANIC ANALYSIS DATA SHEET**

MW #1 / ROUX ASSOC.
S. MONTCLAIR AVE.
LANDFILL SITE

Lab Name: H2M LABS, INC. Contract: GIBBS & HILLMatrix (soil/water): WATERLab Sample ID: 872485Level (low/med): LOWDate Received: 11/11/88% Solids : --Concentration Units (ug/L or mg/kg dry weight) ug/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	66800			A
7440-36-0	Antimony	10	U	N	F
7440-38-2	Arsenic	45			F
7440-39-3	Barium	200	U		A
7440-41-7	Beryllium	8			A
7440-43-9	Cadmium	10			A
7440-70-2	Calcium	72700		N	A
7440-47-3	Chromium	150			A
7440-48-4	Cobalt	140			A
7440-50-8	Copper	130			A
7439-89-6	Iron	43400			A
7439-92-1	Lead	77			F
7439-95-4	Magnesium	17200		N	A
7439-96-5	Manganese	4200			A
7439-97-6	Mercury	0.2	U		CV
7440-02-0	Nickel	130			A
7440-09-7	Potassium	29100		N	A
7782-49-2	Selenium	5	U	N	F
7440-22-4	Silver	30		*	A
7440-23-5	Sodium	40900			A
7440-28-0	Thallium	5	U	WN	F
7440-62-2	Vanadium	50	U		A
7440-66-6	Zinc	210			A
	Cyanide	10	U		C

Color Before: TAN
Color After: COLORLESSClarity Before: CLOUDY
Clarity After: CLEARTexture: =
Artifacts: NONEDate Reported: 12/27/88

*  *

John J. Molloy, P.E.
Laboratory Director

ENVIRONMENTAL and INDUSTRIAL ANALYTICAL LABORATORY

INORGANIC ANALYSIS DATA SHEET

Lab Name: H2M LABS, INC. Contract: GIBBS & HILL MW #2 / ROUX ASSOC.
 S. MONTCLAIR AVE.
 LANDFILL SITE

Matrix (soil/water): WATER Lab Sample ID: 872486

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

% Solids : --

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	3800			A
7440-36-0	Antimony	10	U	N	F
7440-38-2	Arsenic	5	U		F
7440-39-3	Barium	200	U		A
7440-41-7	Beryllium	7			A
7440-43-9	Cadmium	2	U		A
7440-70-2	Calcium	23400		N	A
7440-47-3	Chromium	60			A
7440-48-4	Cobalt	120			A
7440-50-8	Copper	30			A
7439-89-6	Iron	30300			A
7439-92-1	Lead	9			F
7439-95-4	Magnesium	5200		N	A
7439-96-5	Manganese	7700			A
7439-97-6	Mercury	0.2	U		CV
7440-02-0	Nickel	110			A
7440-09-7	Potassium	7300		N	A
7782-49-2	Selenium	5	U	WN	F
7440-22-4	Silver	10		*	A
7440-23-5	Sodium	16300			A
7440-28-0	Thallium	5	U	N	F
7440-62-2	Vanadium	50	U		A
7440-66-6	Zinc	30			A
	Cyanide	10	U		C

Color Before: TAN Clarity Before: CLOUDY Texture: -
 Color After: COLORLESS Clarity After: CLEAR Artifacts: NONE

Date Reported: 12/27/88

 * *J. Molloy* *

John J. Molloy, P.E.
 Laboratory Director

ENVIRONMENTAL and INDUSTRIAL ANALYTICAL LABORATORY

INORGANIC ANALYSIS DATA SHEET

Lab Name: H2M LABS, INC. Contract: GIBBS & HILL MW #3 / ROUX ASSOC.
S. MONTCLAIR AVE.
LANDFILL SITE

Matrix (soil/water): WATER Lab Sample ID: 872487

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

% Solids : --

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	2500			A
7440-36-0	Antimony	10	U	WN	F
7440-38-2	Arsenic	5	U		F
7440-39-3	Barium	200	U		A
7440-41-7	Beryllium	5	U		A
7440-43-9	Cadmium	10			A
7440-70-2	Calcium	67200		N	A
7440-47-3	Chromium	70			A
7440-48-4	Cobalt	120			A
7440-50-8	Copper	40			A
7439-89-6	Iron	25900			A
7439-92-1	Lead	21			F
7439-95-4	Magnesium	6500		N	A
7439-96-5	Manganese	12500			A
7439-97-6	Mercury	0.2	U		CV
7440-02-0	Nickel	130			A
7440-09-7	Potassium	6800		N	A
7782-49-2	Selenium	5	U	N	F
7440-22-4	Silver	10	U	*	A
7440-23-5	Sodium	77700			A
7440-28-0	Thallium	5	U	N	F
7440-62-2	Vanadium	50	U		A
7440-66-6	Zinc	40			A
	Cyanide	10	U		C

Color Before: BEIGE Clarity Before: CLOUDY Texture: -
 Color After: COLORLESS Clarity After: CLEAR Artifacts: NONE

Date Reported: 12/27/88

 *
 * *John J. Molloy* *
 *

 John J. Molloy, P.E.
 Laboratory Director

ENVIRONMENTAL and INDUSTRIAL ANALYTICAL LABORATORY

INORGANIC ANALYSIS DATA SHEET

Lab Name: H2M LABS, INC. Contract: GIBBS & HILL MW #4 / ROUX ASSOC.
S. MONTCLAIR AVE.
LANDFILL SITE

Matrix (soil/water): WATER Lab Sample ID: 872488

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

% Solids : --

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	19900			A
7440-36-0	Antimony	10	U	N	F
7440-38-2	Arsenic	36			F
7440-39-3	Barium	270			A
7440-41-7	Beryllium	5	U		A
7440-43-9	Cadmium	10			A
7440-70-2	Calcium	101700		N	A
7440-47-3	Chromium	110			A
7440-48-4	Cobalt	70			A
7440-50-8	Copper	130			A
7439-89-6	Iron	46400			A
7439-92-1	Lead	48			F
7439-95-4	Magnesium	36400		N	A
7439-96-5	Manganese	950			A
7439-97-6	Mercury	0.2	U		CV
7440-02-0	Nickel	130			A
7440-09-7	Potassium	38800		N	A
7782-49-2	Selenium	5	U	NW	F
7440-22-4	Silver	40		*	A
7440-23-5	Sodium	72000			A
7440-28-0	Thallium	5	U	NW	F
7440-62-2	Vanadium	80			A
7440-66-6	Zinc	90			A
	Cyanide	10	U		C

Color Before: TAN Clarity Before: CLOUDY Texture: -
Color After: COLORLESS Clarity After: CLEAR Artifacts: NONE

Date Reported: 12/27/88

*
* *J. Molloy* *

John J. Molloy, P.E.
Laboratory Director

ENVIRONMENTAL and INDUSTRIAL ANALYTICAL LABORATORY

INORGANIC ANALYSIS DATA SHEET

Lab Name: H2M LABS, INC. Contract: GIBBS & HILL MW #5 / ROUX ASSOC.
 S. MONTCLAIR AVE.
 LANDFILL SITE

Matrix (soil/water): WATER Lab Sample ID: 872489

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

% Solids : --

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	18100			A
7440-36-0	Antimony	10	U	N	F
7440-38-2	Arsenic	25			F
7440-39-3	Barium	200	U		A
7440-41-7	Beryllium	8			A
7440-43-9	Cadmium	10			A
7440-70-2	Calcium	10000		N	A
7440-47-3	Chromium	90			A
7440-48-4	Cobalt	50			A
7440-50-8	Copper	160			A
7439-89-6	Iron	43800			A
7439-92-1	Lead	32		S	F
7439-95-4	Magnesium	15500		N	A
7439-96-5	Manganese	880			A
7439-97-6	Mercury	0.2	U		CV
7440-02-0	Nickel	140			A
7440-09-7	Potassium	84900		N	A
7782-49-2	Selenium	5	U	N	F
7440-22-4	Silver	10	U	*	A
7440-23-5	Sodium	25300			A
7440-28-0	Thallium	5	U	N	F
7440-62-2	Vanadium	50	U		A
7440-66-6	Zinc	90			A
	Cyanide	10	U		C

Color Before: TAN Clarity Before: CLOUDY Texture: -
 Color After: COLORLESS Clarity After: CLEAR Artifacts: NONE

Date Reported: 12/27/88

 * *John J. Molloy* *

 John J. Molloy, P.E.
 Laboratory Director

ENVIRONMENTAL and INDUSTRIAL ANALYTICAL LABORATORY**INORGANIC ANALYSIS DATA SHEET**

MW #6 / ROUX ASSOC.
S. MONTCLAIR AVE.
LANDFILL SITE

Lab Name: H2M LABS, INC. Contract: GIBBS & HILLMatrix (soil/water): WATERLab Sample ID: 872490Level (low/med): LOWDate Received: 11/11/88% Solids : --Concentration Units (ug/L or mg/kg dry weight) ug/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	6900			A
7440-36-0	Antimony	10	U	N	F
7440-38-2	Arsenic	31			F
7440-39-3	Barium	220			A
7440-41-7	Beryllium	5	U		A
7440-43-9	Cadmium	10			A
7440-70-2	Calcium	69900		N	A
7440-47-3	Chromium	80			A
7440-48-4	Cobalt	100			A
7440-50-8	Copper	70			A
7439-89-6	Iron	34100			A
7439-92-1	Lead	33			F
7439-95-4	Magnesium	35500		N	A
7439-96-5	Manganese	3700			A
7439-97-6	Mercury	0.2	U		CV
7440-02-0	Nickel	170			A
7440-09-7	Potassium	35300		N	A
7782-49-2	Selenium	5	U	NW	F
7440-22-4	Silver	10	U	*	A
7440-23-5	Sodium	93100			A
7440-28-0	Thallium	5	U	NW	F
7440-62-2	Vanadium	50	U		A
7440-66-6	Zinc	80			A
	Cyanide	10	U		C

Color Before: TANClarity Before: CLOUDYTexture: -Color After: COLORLESSClarity After: CLEARArtifacts: NONEDate Reported: 12/27/88

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

ENVIRONMENTAL and INDUSTRIAL ANALYTICAL LABORATORY

INORGANIC ANALYSIS DATA SHEET

MW #7 / ROUX ASSOC.
 S. MONTCLAIR AVE.
 LANDFILL SITE

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

Matrix (soil/water): WATER Lab Sample ID: 872491

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

% Solids : --

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	28900			A
7440-36-0	Antimony	10	U	N	F
7440-38-2	Arsenic	26			F
7440-39-3	Barium	240			A
7440-41-7	Beryllium	5	U		A
7440-43-9	Cadmium	10			A
7440-70-2	Calcium	112000		N	A
7440-47-3	Chromium	110			A
7440-48-4	Cobalt	50			A
7440-50-8	Copper	70			A
7439-89-6	Iron	44000			A
7439-92-1	Lead	29			F
7439-95-4	Magnesium	32400		N	A
7439-96-5	Manganese	770			A
7439-97-6	Mercury	0.2	U		CV
7440-02-0	Nickel	100			A
7440-09-7	Potassium	31000		N	A
7782-49-2	Selenium	5	U	W	F
7440-22-4	Silver	10		*N	A
7440-23-5	Sodium	57900			A
7440-28-0	Thallium	5	U	W	F
7440-62-2	Vanadium	50	U		A
7440-66-6	Zinc	90			A
	Cyanide	10	U		C

Color Before: TAN Clarity Before: CLOUDY Texture: -
 Color After: COLORLESS Clarity After: CLEAR Artifacts: NONE

Date Reported: 12/27/88

 * *John J. 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

INORGANIC ANALYSIS DATA SHEET

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

MW #8 / ROUX ASSOC.
S. MONTCLAIR AVE.
LANDFILL SITE

Matrix (soil/water): WATER

Lab Sample ID: 872492

Level (low/med): LOW

Date Received: 11/11/88

% Solids : --

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	8300			A
7440-36-0	Antimony	10	U	N	F
7440-38-2	Arsenic	29			F
7440-39-3	Barium	310			A
7440-41-7	Beryllium	5	U		A
7440-43-9	Cadmium	10			A
7440-70-2	Calcium	73100		N	A
7440-47-3	Chromium	60			A
7440-48-4	Cobalt	80			A
7440-50-8	Copper	70			A
7439-89-6	Iron	33800			A
7439-92-1	Lead	31			F
7439-95-4	Magnesium	36100		N	A
7439-96-5	Manganese	3900			A
7439-97-6	Mercury	0.2	U		CV
7440-02-0	Nickel	120			A
7440-09-7	Potassium	600		N	A
7782-49-2	Selenium	5	U	WN	F
7440-22-4	Silver	20		*	A
7440-23-5	Sodium	96700			A
7440-28-0	Thallium	5	U	WN	F
7440-62-2	Vanadium	50	U		A
7440-66-6	Zinc	70			A
	Cyanide	10	U		C

Color Before: TAN

Clarity Before: CLOUDY

Texture: ---

Color After: COLORLESS

Clarity After: CLEAR

Artifacts: NONE

Date Reported: 12/27/88

* *J. Molloy* *

John J. Molloy, P.E.
Laboratory Director

ENVIRONMENTAL and INDUSTRIAL ANALYTICAL LABORATORY

INORGANIC ANALYSIS DATA SHEET

Lab Name: H2M LABS, INC. Contract: GIBBS & HILL FIELD BLANK / ROUX
S. MONTCLAIR AVE.
LANDFILL SITE

Matrix (soil/water): WATER Lab Sample ID: 872493

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

% Solids : --

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

CAS No.	Analyte	Concentration	CMC	QC	Method
7429-90-5	Aluminum	200	U		A
7440-36-0	Antimony	10	U	N	F
7440-38-2	Arsenic	5	U		F
7440-39-3	Barium	200	U		A
7440-41-7	Beryllium	5	U		A
7440-43-9	Cadmium	2	U		A
7440-70-2	Calcium	700		N	A
7440-47-3	Chromium	40			A
7440-48-4	Cobalt	50	U		A
7440-50-8	Copper	25	U		A
7439-89-6	Iron	100	U		A
7439-92-1	Lead	5	U		F
7439-95-4	Magnesium	200	U	N	A
7439-96-5	Manganese	15	U		A
7439-97-6	Mercury	0.2	U		CV
7440-02-0	Nickel	40	U		A
7440-09-7	Potassium	200	U	N	A
7782-49-2	Selenium	5	U	N	F
7440-22-4	Silver	10	U	*	A
7440-23-5	Sodium	200	U		A
7440-28-0	Thallium	5	U	N	F
7440-62-2	Vanadium	50	U		A
7440-66-6	Zinc	20	U		A
	Cyanide	10	U		C

Handwritten notes:
 P = ICP
 F = Furnace
 A = Flame
 CV = Cold Vapor
 C = CVM

Color Before: COLORLESS Clarity Before: CLEAR Texture: -
 Color After: COLORLESS Clarity After: CLEAR Artifacts: NONE

Date Reported: 12/27/88

U or B

Under or Between

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

N + E + S + W

ENVIRONMENTAL and INDUSTRIAL ANALYTICAL LABORATORY

PESTICIDE ORGANICS ANALYSIS DATA SHEET

Lab Name: H2M LABS, INC.	Contract: GIBBS & HILL	MW-1 / ROUX ASSOC. S. MONTCLAIR AVE. LANDFILL GROUNDWATER SAMPLES
Matrix: WATER	Lab Sample ID: 872475	
Sample vol: 1000 mL	Lab File ID: 219 / 710	
Level: LOW	Date Received: 11/11/88	
% Moisture: not dec. X dec.	Date Extracted: 11/14/88	
Extraction: SEPF	Date Analyzed: 12/03/88 P/ 12/13/88 C	
GPC Cleanup: -- 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
319-84-8	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	0.04		B, J
1024-57-3	Heptachlor epoxide	0.06		
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
12672-24-6	Aroclor-1248	0.5		U
11097-69-1	Aroclor-1254	1.0		U
11096-82-5	Aroclor-1260	1.0		U

Date Reported: 12/28/88

John J. Molloy

John J. Molloy, P.E.
 Laboratory Director

ENVIRONMENTAL and INDUSTRIAL ANALYTICAL LABORATORY

PESTICIDE ORGANICS ANALYSIS DATA SHEET

Lab Name: H2M LABS, INC.

Contract: GIBBS &
HILLMW-2 / ROUX ASSOC.
S. MONTCLAIR AVE.
LANDFILL
GROUNDWATER SAMPLES

Matrix: WATER

Lab Sample ID: 872476

Sample vol: 1000 mL

Lab File ID: 220 / 711

Level: LOW

Date Received: 11/11/88

% Moisture: not dec. X dec.

Date Extracted: 11/14/88

Extraction: SEPF

Date Analyzed: 12/03/88 P/ 12/13/88 C

GPC Cleanup: -- pH:

Dilution Factor: 1

CAS NO.	COMPOUND	CONCENTRATION	UNITS: ug/l	Q
319-84-6	alpha-BHC	0.03		J
319-85-7	beta-BHC	0.03		U
319-86-8	delta-BHC	0.03		U
58-89-9	gamma-BHC (Lindane)	0.03		U
76-44-8	Heptachlor	0.05		U
309-00-2	Aldrin	0.03		E, 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
72-84-8	4,4'-DDD	0.10		U
1024-07-8	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
11104-22-2	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: 12/28/88

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

ENVIRONMENTAL and INDUSTRIAL ANALYTICAL LABORATORY

PESTICIDE ORGANICS ANALYSIS DATA SHEET

Lab Name: H2M LABS, INC.

Contract: GIBBS &
HILLMW-3 / ROUX ASSOC.
S. MONTCLAIR AVE.
LANDFILL
GROUNDWATER SAMPLES

Matrix: WATER

Lab Sample ID: 872477

Sample vol: 1000 mL

Lab File ID: 221 / 713

Level: LOW

Date Received: 11/11/88

% Moisture: not dec. X dec.

Date Extracted: 11/14/88

Extraction: SEPF

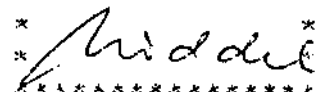
Date Analyzed: 12/03/88 P/ 12/13/88 C

GPC Cleanup: -- PH:

Dilution Factor: 1

CAS NO.	COMPOUND	CONCENTRATION	UNITS: us/l	0
319-84-6	alpha-BHC	0.05		U
319-85-7	beta-BHC	0.05		U
319-84-8	delta-BHC	0.05		U
58-89-9	gamma-BHC (lindane)	0.05		U
76-44-3	Heptachlor	0.05		U
309-00-2	Aldrin	0.03		B, J
1024-57-3	Heptachlor epoxide	0.02		J
959-98-8	Endosulfen I	0.05		U
60-57-1	Dieldrin	0.10		U
72-55-9	4,4'-DDE	0.10		U
72-20-3	Endrin	0.10		U
33213-65-9	Endosulfan II	0.10		U
72-54-8	4,4'-DDD	0.10		U
1031-07-6	Endosulfen 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: 12/28/88

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

ENVIRONMENTAL and INDUSTRIAL ANALYTICAL LABORATORY**PESTICIDE ORGANICS ANALYSIS DATA SHEET**

Lab Name: H2M LABS, INC. Contract: GIBBS & HILL
Matrix: WATER Lab Sample ID: 872478
Sample vol: 1000 mL Lab File ID: 267 / 714
Level: LOW Date Received: 11/11/88
% Moisture: not dec. X dec. Date Extracted: 11/14/88
Extraction: SEPF Date Analyzed: 12/03/88 P/ 12/13/88 C
GPC Cleanup: -- pH: Dilution Factor: 1

MW-4 / ROUX ASSOC.
S. MONTCLAIR AVE.
LANDFILL
GROUNDWATER SAMPLES

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
58-37-9	gamma-BHC (lindane)	0.05		U
76-44-8	Heptachlor	0.05		U
309-00-2	Aldrin	0.08		B
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: 12/28/88

* *John J. Molloy* *

John J. Molloy, P.E.
Laboratory Director

ENVIRONMENTAL and INDUSTRIAL ANALYTICAL LABORATORY

PESTICIDE ORGANICS ANALYSIS DATA SHEET

Lab Name: H2M LABS, INC.

Contract: GIBBS &
HILLMW-5 / ROUX ASSOC.
S. MONTCLAIR AVE.
LANDFILL
GROUNDWATER SAMPLES

Matrix: WATER

Lab Sample ID: 872479

Sample vol: 1000 mL

Lab File ID: 268 / 715

Level: LOW

Date Received: 11/11/88

% Moisture: not dec. X dec.

Date Extracted: 11/14/88

Extraction: SEPF

Date Analyzed: 12/08/88 P/ 12/13/88 C

GPC Cleanup: -- pH:

Dilution Factor: 1

CAS NO.	COMPOUND	CONCENTRATION	UNITS: ug/l	Q
319-84-6	alpha-BHC	0.06		
319-85-7	beta-BHC	0.05		U
319-86-8	delta-BHC	0.05		U
50-89-7	gamma-BHC (Lindane)	0.05		U
76-44-8	Heptachlor	0.05		U
309-00-2	Aldrin	0.09		B
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
72-54-3	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: 12/28/88

John J. Molloy

John J. Molloy, P.E.
Laboratory Director

ENVIRONMENTAL and INDUSTRIAL ANALYTICAL LABORATORY

PESTICIDE ORGANICS ANALYSIS DATA SHEET

Lab Name: H2M LABS, INC.

Contract: GIBBS & HILL

MW-6 / ROUX ASSOC.
 S. MONTCLAIR AVE.
 LANDFILL
 GROUNDWATER SAMPLES

Matrix: WATER

Lab Sample ID: 872430

Sample vol: 1000 mL

Lab File ID: 269 / 716

Level: LOW

Date Received: 11/11/88

% Moisture: not dec. X dec.

Date Extracted: 11/14/88

Extraction: SEPF


Date Analyzed: 12/08/88 P/ 12/13/88 C

GPC Cleanup: -- 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
53-19-9	gamma-BHC (lindane)	0.05		U
76-44-8	Heptachlor	0.05		U
309-00-2	Aldrin	0.04		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
33213-66-9	Endosulfan II	0.10		U
72-54-8	4,4'-DDD	0.10		U
1031-07-2	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-1243	0.5		U
11097-69-1	Aroclor-1254	1.0		U
11096-82-5	Aroclor-1260	1.0		U

Date Reported: 12/28/88

*  *

John J. Molloy, P.E.
 Laboratory Director

ENVIRONMENTAL and INDUSTRIAL ANALYTICAL LABORATORY

PESTICIDE ORGANICS ANALYSIS DATA SHEET

Lab Name: H2M LABS, INC.

Contract: GIBBS &
HILLMW-7 / ROUX ASSOC.
S. MONTCLAIR AVE.
LANDFILL
GROUNDWATER SAMPLES

Matrix: WATER

Lab Sample ID: 872481

Sample vol: 1000 mL

Lab File ID: 222 / 717

Level: LOW

Date Received: 11/11/88

% Moisture: not dec. X dec.

Date Extracted: 11/14/88

Extraction: SEPF

Date Analyzed: 12/03/88 P/ 12/13/88 C

GPC Cleanup: -- pH:

Dilution Factor: 1

CAS NO.	COMPOUND	CONCENTRATION	UNITS: ug/l	D
319-84-6	alpha-BHC	0.05		U
319-85-7	beta-BHC	0.05		U
319-86-1	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
72-54-3	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
53489-21-9	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: 12/28/88

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

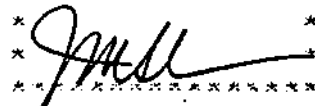
ENVIRONMENTAL and INDUSTRIAL ANALYTICAL LABORATORY

PESTICIDE ORGANICS ANALYSIS DATA SHEET

Lab Name: H2M LABS, INC.	Contract: GIBBS & HILL	MW-8 / ROUX ASSOC. S. MONTCLAIR AVE. LANDFILL GROUNDWATER SAMPLES
Matrix: WATER	Lab Sample ID: 872482	
Sample vol: 1000 mL	Lab File ID: 223 / 719	
Level: LOW	Date Received: 11/11/88	
% Moisture: not dec. X dec.	Date Extracted: 11/14/88	
Extraction: SEPF	Date Analyzed: 12/03/88 P / 12/13/88 C	
GPC Cleanup: -- 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	gamma-BHC	0.05		U
58-29-9	gamma-BHC (Lindane)	0.05		U
76-44-8	Heptachlor	0.05		U
309-00-2	Aldrin	0.04		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
53474-70-5	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: 12/28/88

 *  *

John J. Molloy, P.E.
 Laboratory Director

ENVIRONMENTAL and INDUSTRIAL ANALYTICAL LABORATORY

PESTICIDE ORGANICS ANALYSIS DATA SHEET

Lab Name: H2M LABS, INC.

Contract: GIBBS &
HILLFIELD BLANK / ROUX
S. MONTCLAIR AVE.
LANDFILL
GROUNDWATER SAMPLES

Matrix: WATER

Lab Sample ID: 872433

Sample vol: 1000 mL

Lab File ID: 225 / 720

Level: LOW

Date Received: 11/11/88

% Moisture: not dec. X dec.

Date Extracted: 11/14/88

Extraction: SEPF

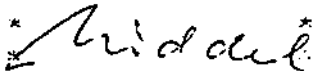
Date Analyzed: 12/03/88 P/ 12/13/88 C

GPC Cleanup: -- pH: .

Dilution Factor: 1

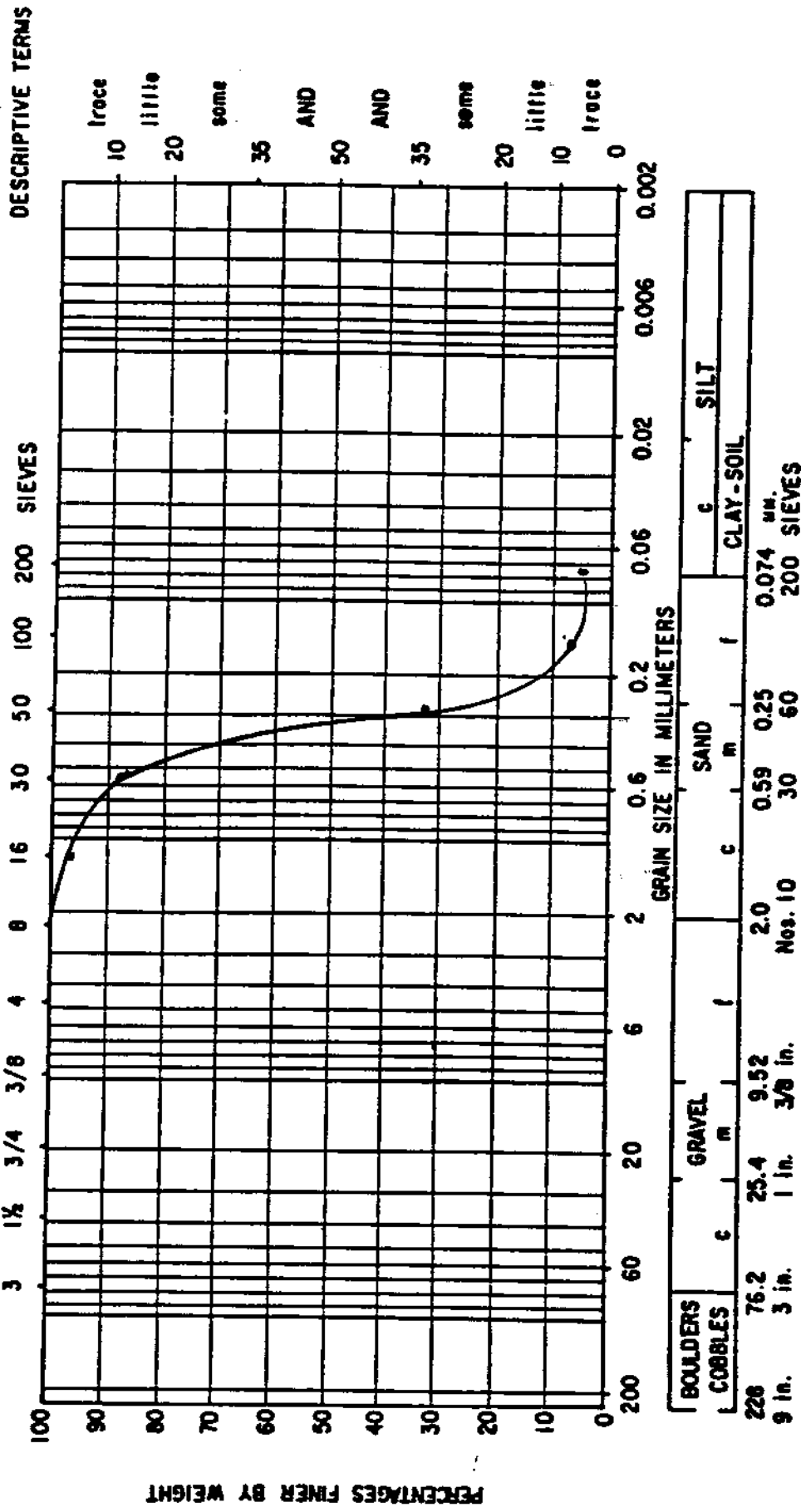
CAS NO.	COMPOUND	CONCENTRATION	UNITS: ug/l	g
319-84-6	alpha-BHC	0.05		U
319-85-7	beta-BHC	0.05		U
319-86-8	delta-BHC	0.05		U
58-39-9	gamma-BHC (Lindane)	0.05		U
76-44-8	Heptachlor	0.05		U
309-00-2	Aldrin	0.05		g.
1024-57-3	Heptachlor epoxide	0.05		U
959-98-8	Endosulfan I	0.05		U
60-57-1	Dieldrin	0.10		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: 12/28/88



John J. Molloy, P.E.
Laboratory Director

GRAIN SIZE ANALYSIS



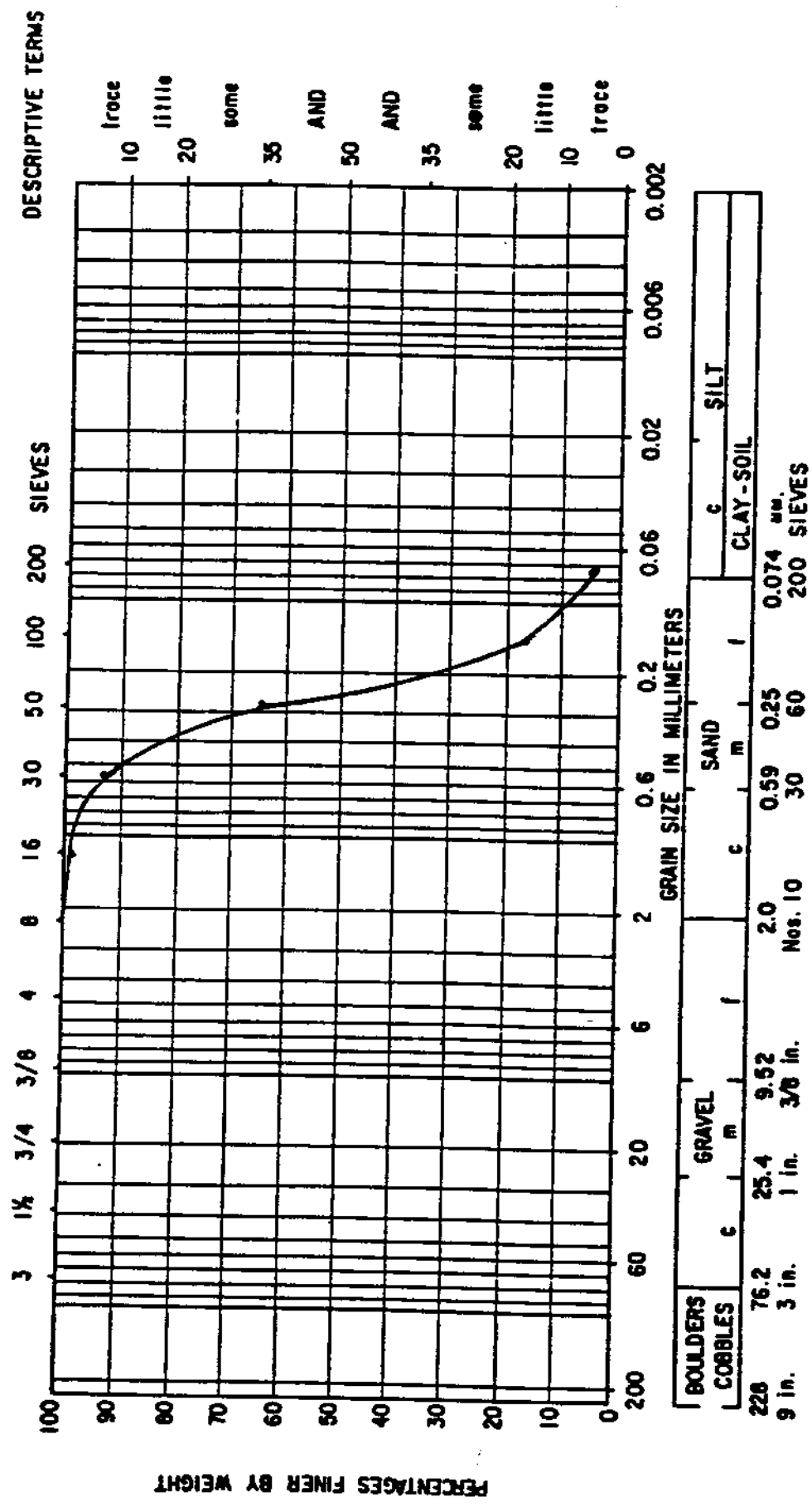
Soil Classification	Grain Size Range (mm)	Percentage
BOULDERS	> 75	0
COBBLES	25.4 - 75	0
GRAVEL	4.75 - 25.4	0
SAND	0.075 - 4.75	35
CLAY-SOIL	< 0.075	65
SILT	< 0.075	65

Project: South Montclair Avenue Site

Sample: MW-1

Depth: 40' - 42'

GRAIN SIZE ANALYSIS

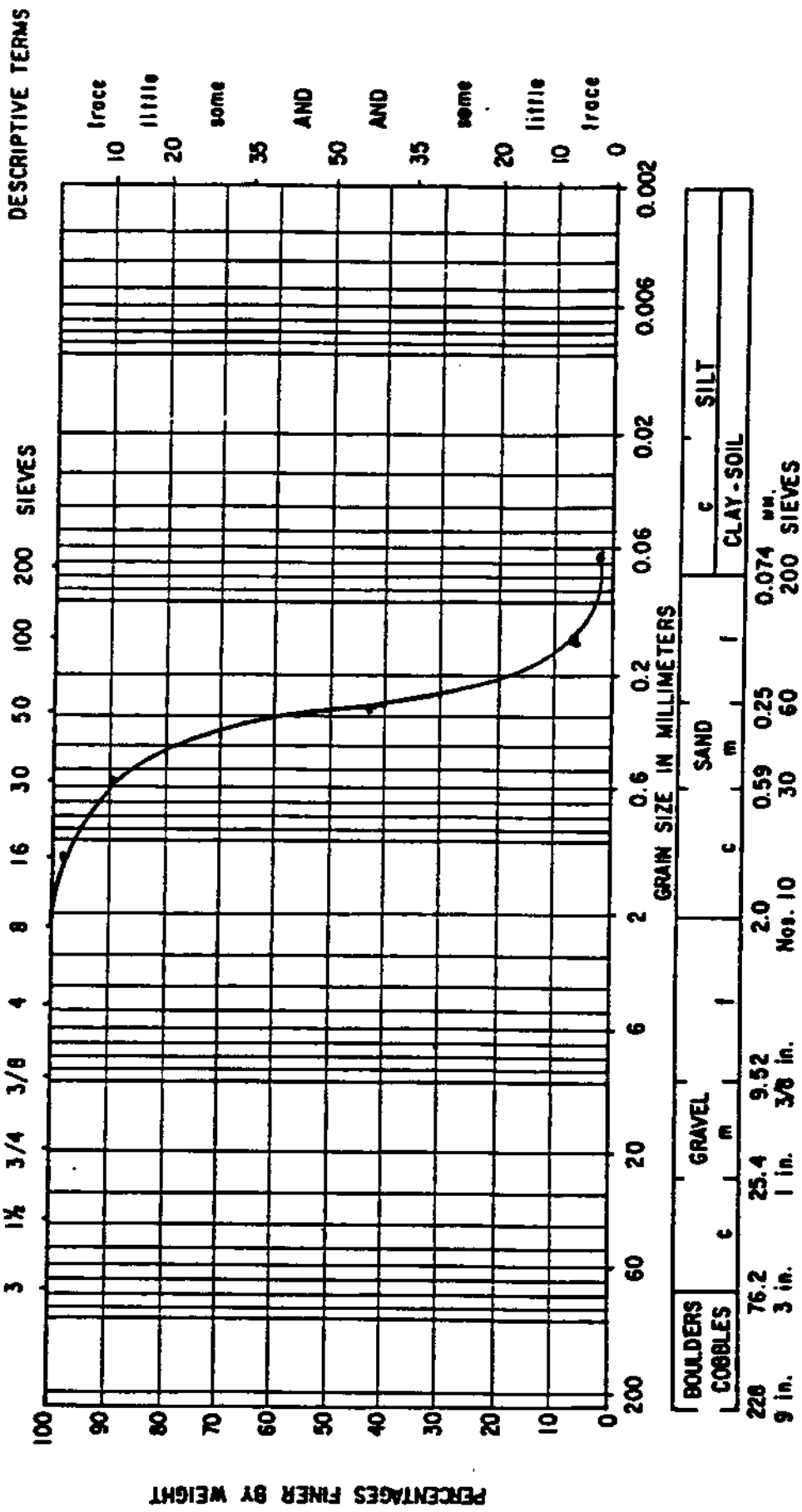


Project: South Montclair Avenue Site

Sample: MW-2

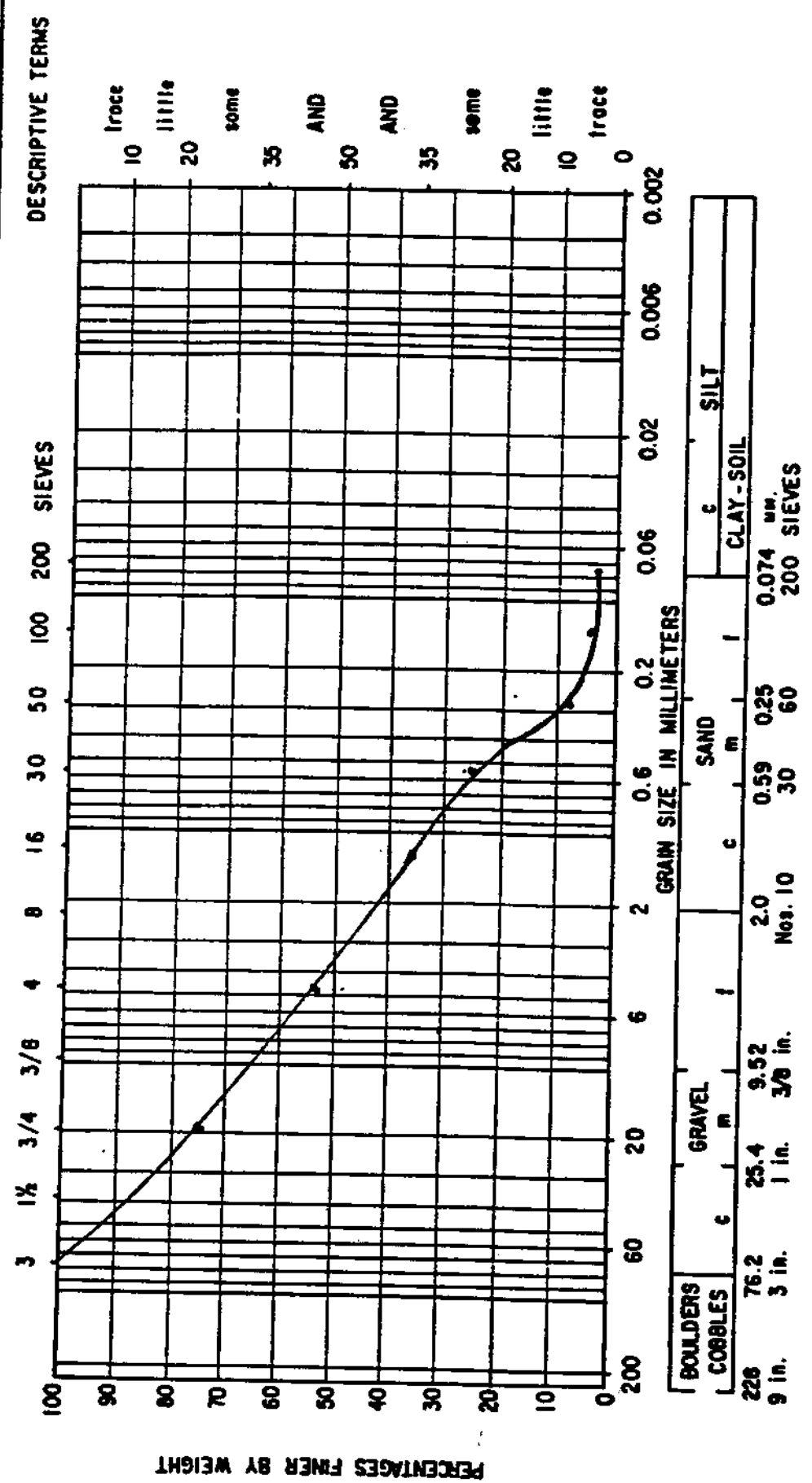
Depth: 50' - 52'

GRAIN SIZE ANALYSIS



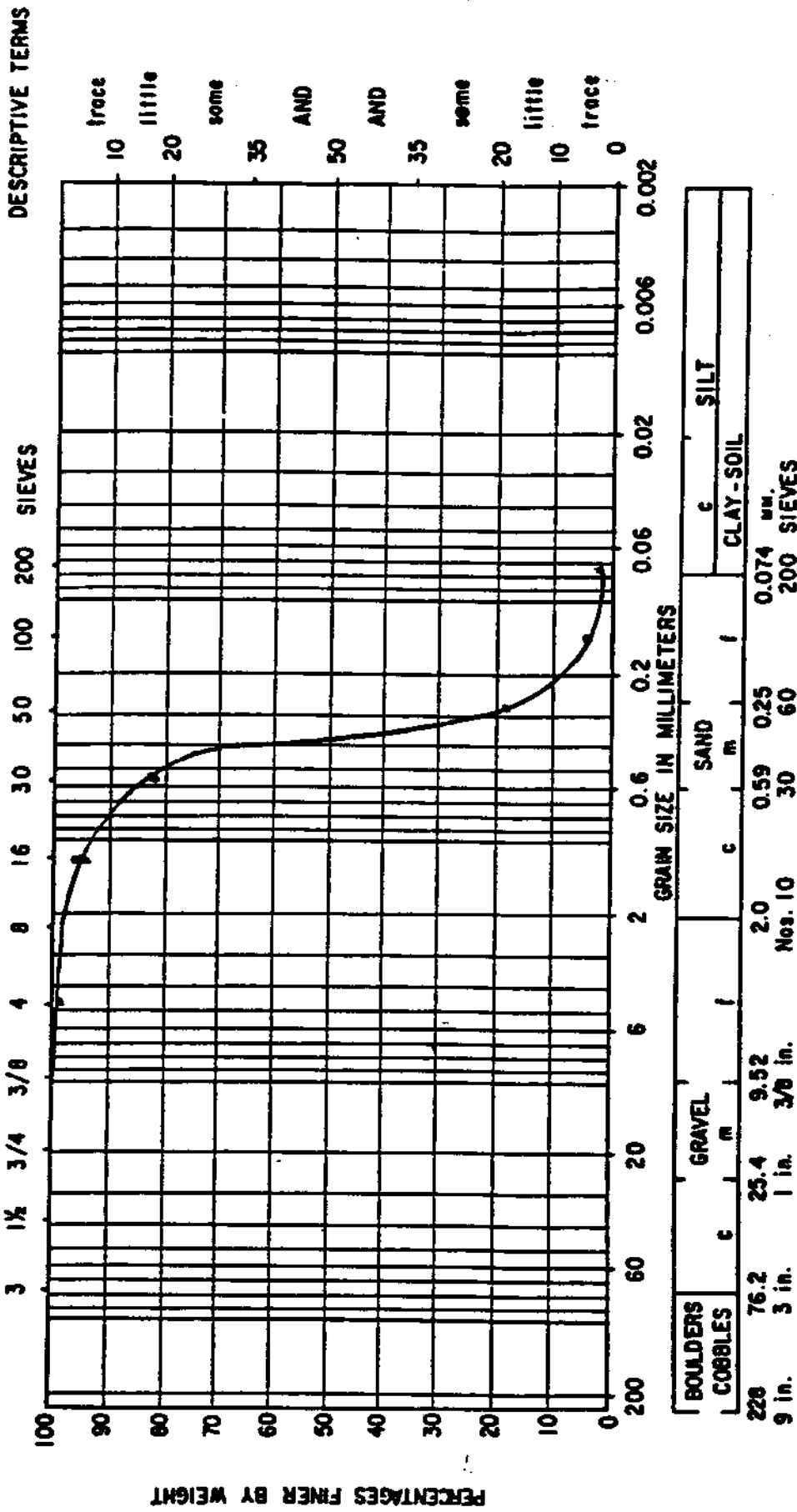
Project: South Montclair Avenue Site
 Sample: MW-3
 Depth: 55' - 57'

GRAIN SIZE ANALYSIS



Project: South Montclair Avenue Site
 Sample: MW-4
 Depth: 55' - 57'

GRAIN SIZE ANALYSIS



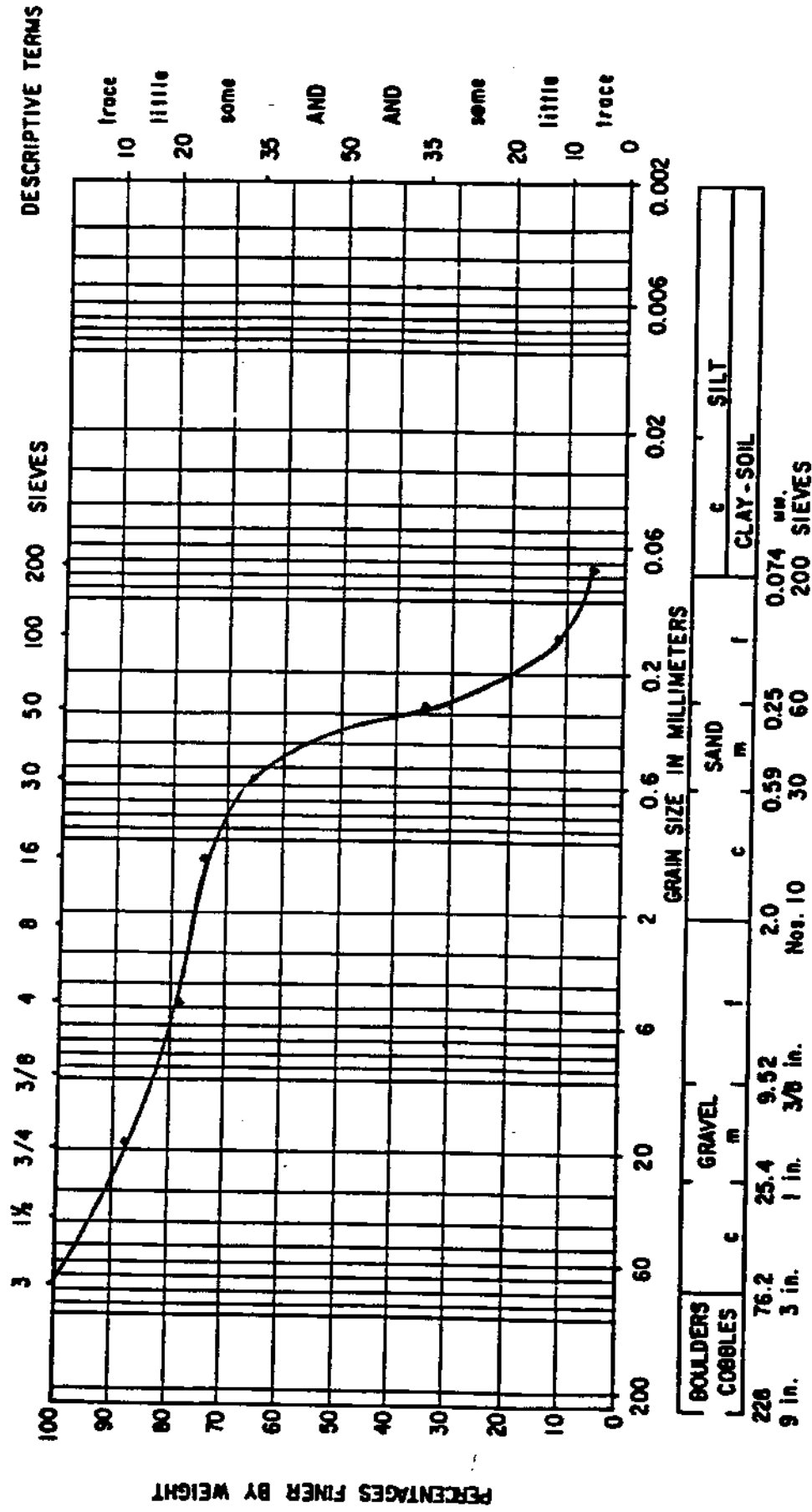
BOULDERS		COBBLES		GRAVEL		SAND		CLAY-SOIL	
c	m	c	m	c	m	c	m	c	m
228	76.2	25.4	9.52	2.0	0.59	0.25	0.074	0.074	0.002
9 in.	3 in.	1 in.	3/8 in.	Nos. 10	30	60	200 SIEVES		

Project: South Montclair Avenue Site

Sample: MW-5

Depth: 70' - 72'

GRAIN SIZE ANALYSIS

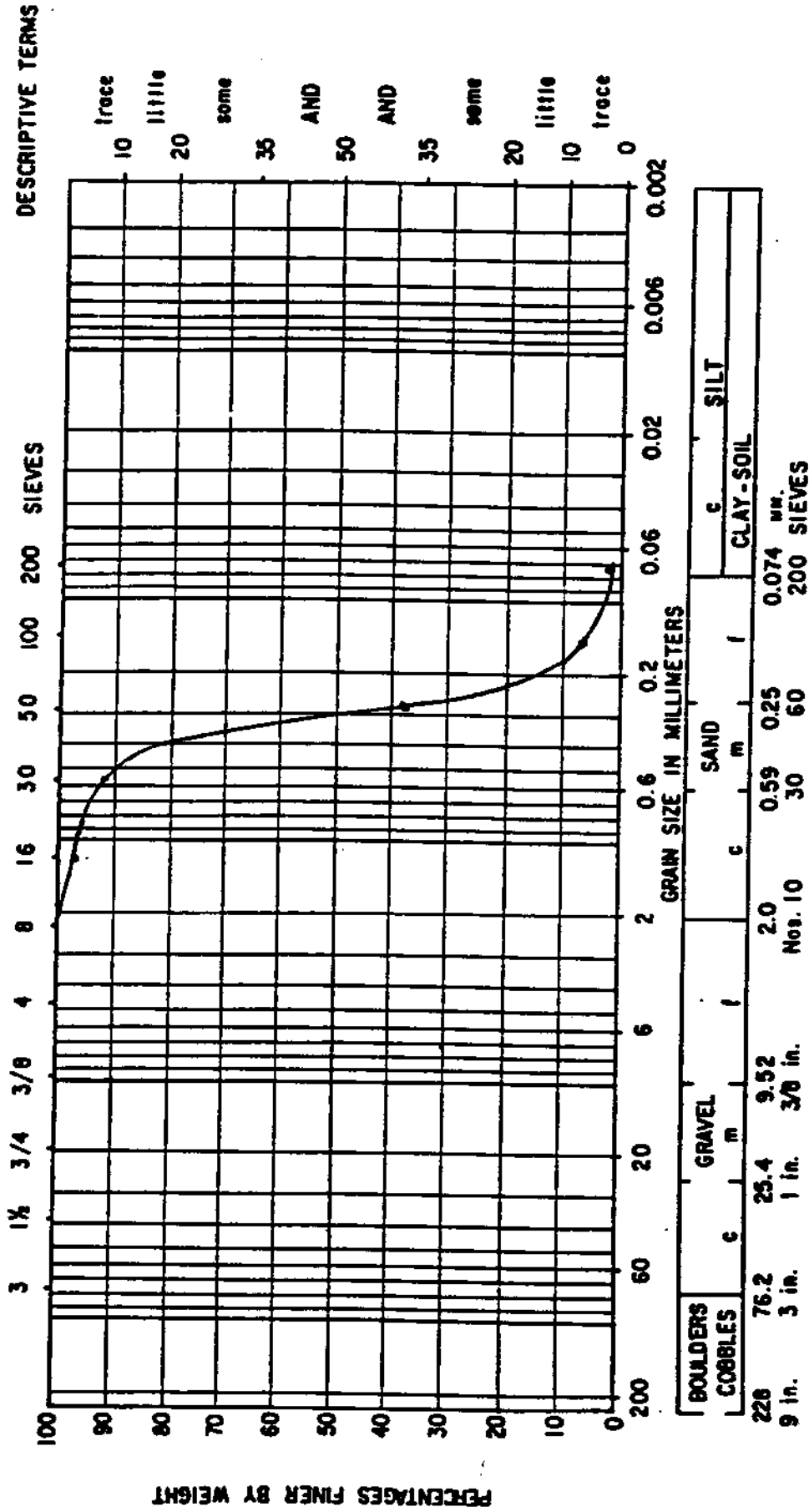


Project: South Montclair Avenue Site

Sample: MW-6

Depth: 60' - 62'

GRAIN SIZE ANALYSIS



Project: South Montclair Avenue Site

Sample: MW-7

Depth: 55' - 57'



February 6, 1989

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

Re: Data Validation
File: 4398-001-517

Dear Larry,

Please find enclosed the report on the validation of data packages submitted by H2M Labs, Inc. The samples validated were collected from the South Montclair Avenue Site on 11-11-88. The following table itemizes the site identification laboratory sample number and parameters validated.

SITE ID	LABORATORY SAMPLE NUMBER	PARAMETERS				
		VOA	BNA	PEST	METALS	CN
MW-1	872475 & 872485	X	X	X	X	X
MW-2	872476 & 872486	X	X	X	X	X
MW-3	872477 & 872487	X	X	X	X	X
MW-4	872478 & 872488	X	X	X	X	X
MW-5	872479 & 872489	X	X	X	X	X
MW-6	872480 & 872490	X	X	X	X	X
MW-7	872481 & 872491	X	X	X	X	X
MW-8	872482 & 872492	X	X	X	X	X
Field Blank	872483 & 872493	X	X	X	X	X
Trip Blank	872484	X				

The data packages were received at OBG Laboratories, Inc. on December 30, 1988. Following the review by our chemists a report is typed identifying the excursions from the 1987 NYS DEC CLP requirements.

Should you have any questions pertaining to the comments please feel free to contact us.

Very truly yours,
OBG Laboratories, Inc.

David R. Hill
Vice President

enc.
cc:Mr. Norman Hinsey, Gibbs & Hill

SOUTH MONTCLAIR AVENUE LANDFILL SITE VOLATILES

I IDENTIFICATION OF ANALYTES

The following do not meet the requirements of quantitative verification (as detailed in Exhibit E, Page E-25, Section 6.1.3.1.1). Ions that are above 10% in the standard, but not present in the sample, are not accounted for. Also ions that are above 10% in the sample, but not present in the standard, are not accounted for:

<u>Sample</u>	<u>Analytes</u>
MW-1	Chloroform
MW-2	Chloromethane, 1,1,1-Trichloroethane
MW-3	Chlorobenzene
MW-4	Chloroform, 1,1,1-Trichloroethane
MW-5	1,1-Dichloroethane
MW-7	1,1-Dichloroethane, Tetrachloroethene
MW-8	Benzene, Tetrachloroethene, Styrene
Field Blank	1,1,2-Trichloroethane, Benzene, Tetrachloroethene, Styrene
Trip Blank	1,1-Dichloroethene
PU9342 Inst.Blank	Tetrachloroethene, Toluene, Ethylbenzene, Styrene, Ortho/Para-Xylene
PU9352 Inst.Blank	Methylene Chloride

In sample MW-7, acetone and 2-Hexanone were listed in the quantitation report, and were not eliminated from the report due to misidentification, yet not mass spectra were included in the data package for these two compounds. In the data form, acetone is listed as 5µg/L, but 2-Hexanone is listed as being undetected. See Exhibit B, Page B-11).

II TENTATIVELY IDENTIFIED COMPOUNDS

In Sample MW-4, the scan 56 peak was not library searched although its response appeared to be greater than 10% of the nearest internal standard. See Exhibit D, D-II-30).

In Sample MW-5, the scan 56 peak was quantitated using the internal standard at scan 335, rather than that at scan 147 which is the nearest internal standard which is free of interferences. See Exhibit E, Page E-26, Section 6.1.4.2.

In Samples MW-6 and MW-7, peaks are present which appear to be greater than 10% of the nearest internal standard, but were not library searched. See Exhibit D, D-II-35.

III QUANTITATION

Total xylenes are to be quantitated as m-Xylene. M-Xylene is not listed in either initial or continuous calibration quantitation reports. See Exhibit D, D-II-33, Section 9.2.2.

1,2-Dichloroethene (cis and trans) are to be reported as 1,2-Dichloroethene (Total). Only Trans-1,2-Dichloroethene is listed in the initial and continuous calibration. See Exhibit D, D-II-33, Section 9.4.3.

SOUTH MONTCLAIR AVENUE LANDFILL SITE VOLATILES CONT'D.

Toluene d-8 was quantitated using ion 100 rather than 98 as is required by the method. See Exhibit D, D-II-36.

2-Butanone was quantitated using ion 43 rather than 72 as is required by the method. See Exhibit D, D-II-36.

IV CALIBRATION

For the daily calibration of 11/15/88 and 11/16/88, the following analytes have %D greater than 50%:

<u>Calibration</u>	<u>Analyte</u>	<u>% Difference</u>
11/15/88	Methylene Chloride	63
11/15/88	1,1-Dichloroethane	55
11/15/88	Bromodichloromethane	67
11/16/88	1,1,1-Trichloroethane	105
11/16/88	Carbon Tetrachloride	73
11/16/88	Bromodichloromethane	89

In the 20µg/L standard, PU9196, the bromomethane RRF calculation is:

$$\frac{14054 \times 50}{48795 \times 20} = 0.720$$

However, 0.570 RRF was reported on the initial calibration form. Either the RRF is incorrect or the true value of the bromomethane is 25.3µg/L which is not reflected in the quantitation report. See Exhibit E, E-13.

V ANALYSES

In the injection logbook, the field blank and trip blank appear to have been analyzed several times, however, these analyses were unaccounted for in the data package.

VI MATRIX SPIKE/MATRIX SPIKE DUPLICATE

The % recovery for chlorobenzene on the MW-7MS form is 112 instead of 110. See Exhibit E, E-22.

VII DATA CORRELATION

Chlorobenzene appears in the following samples:

<u>Sample</u>	<u>Amount in Volatile Analysis</u>	<u>TIC in BNA</u>
MW-5	40µg/L	Yes
MW-6	10µg/L	Yes
MW-8	15µg/L	Yes
Field Blank	2µg/L	-

VIII BLANKS

In lab file PU9342, chlorobenzene was detected, but was not reflected on the data form. Chlorobenzene was also detected in Samples MW-8, Field Blank, MW-3, MW-4 and MW-5. However, only the MW-5 entry for chlorobenzene listed "B" as the Q-flag. See Exhibit B, B-36.

SOUTH MONTCLAIR AVENUE LANDFILL SITE VOLATILES CONT'D.

IX MISCELLANEOUS

RICs are not normalized to the largest non-solvent components. See Exhibit B, B-10.

Internal standard and surrogate spiking compounds are not labeled by name or retention time, but by scan number on the RIC. See Exhibit B, B-10.

GC/MS instrument ID needs to be listed on the quantitation report, RICs and mass spectra. See Exhibit B, B-10 and B-11.

The MS/MSD form should read % RPD rather than % REC. See Exhibit B, B-38.

Rounding rules were not followed in the following (see Exhibit B, B-33):

<u>Sample</u>	<u>Analyte</u>	<u>Quant Report</u>	<u>Data Report (Corrected)</u>
MW-5	1,1,1-Trichloroethane	2.563	3(2)
MW-6	Methylene Chloride	4.504	5(4)
MW-7	Vinyl Acetate	1.740	10U(2)
MW-8	1,1-Dichloroethene	2.553	3(2)

In blank 11/16/88, acetone was listed in the quantitation report as 5.118µg/L, but on the analysis data sheet, acetone is listed as 5µg/L J. The J flag is used when the result is less than the sample quantitation limit (5), but greater than zero. See Exhibit B, B-35.

On the analysis data sheet, TIC, the retention time should be listed as minutes and decimal minutes, not minutes:seconds. See Exhibit B, B-37.

On the analysis data sheet for MW-1, MW-2, MW-4 and MW-4, 2-Butanone should be listed as 10U not 5U. See Exhibit C, C-9, C-10.

On the surrogate recovery form, all water samples are low level, therefore, level is not listed. See Exhibit B, B-37.

On the tuning form, the tune criteria for 173 is less than 2.01 of 174, not the base peak. See Exhibit E, E-11.

On the internal standard form, an appropriate entry for column is Pack rather than Low. See Exhibit B, B-41.

All reports and documentation should be paginated. See Exhibit B, B-6.

On the Continuing Calibration Check Form, vinyl chloride, 1,2-Dichloropropane and toluene should be marked as CCC compounds. See Exhibit E, E-16.

Several copies of documents included in the package are not legible. These include the injection logbook, chain of custody and the RIC for the 20µg/L standard of 10/22/88. See Exhibit B, B-6.

SOUTH MONTCLAIR AVENUE LANDFILL SITE SEMIVOLATILES

I EXTRACTIONS

All samples were initially extracted within the contract-specific holding time of five days from verified time of sample receipt (VTSR).

Three samples had to be re-extracted, but were not done so within the five day holding period:

<u>Sample</u>	<u>Number of Days from VTSR</u>
MW-1 B/N RE	18
MW-2 AE RE	18
Field Blank BN	20

II ANALYSES

All extracts were analyzed within forty days of extraction.

III SURROGATE RECOVERIES

All surrogate recoveries were within contract-specified QC limits. It was noted that for many of the samples, the value on Form 2C did not match that listed in the Quant report (e.g., for SBLK 428, 2FP is 45% versus 42% listed on Form 2c).

Three samples (MW-1, MW-2 and Field Blank) had surrogate recoveries initially outside of QC limits, so these samples were re-extracted.

As documented in Exhibit E, E-38, Section 4.3.2.1.2, these extracts should have first been reanalyzed, then the samples re-extracted if the problem was not solved. For the three re-extracted samples the extraction log shows that samples were only re-extracted for the type of surrogate that failed to pass (e.g., only Base/Neutrals for MW-1 re-extracted). This is not a strict following of the extraction methodology as explained in Exhibit D, D-III-8,9,10, Section 5.

IV MATRIX SPIKE/MATRIX SPIKE DUPLICATES (MS/MSD)

As noted in the case narrative, four % RPD were outside of QC limits (1,4-Dichlorobenzene, 1,2,4-Trichlorobenzene, Acenaphthene, Pyrene). See Exhibit E, E-41, Section 5.5. Some analytes were spiked at slightly higher amounts than the contract-specified amounts of 100µg/L (Base/Neutral) and 200µg/L (Acid). See Exhibit D, D-III-20, Section 2.4.7.1.

V INITIAL CALIBRATION

All CCCs and SPCCs passed criteria.

VI CONTINUING CALIBRATIONS

11/23/88: All CCCs and SPCCs pass.

All RRFs for 2,4-Dinitrophenol (-54.9%) and 3,3'-Dichlorobenzidine (+73.9%) had % DS greater than 50%.

ID file did not automatically identify Hexacyclopentadiene and 4,6-Dinitro-2-Methylphenol (no q value), and some of the q values are low (less than 50). Some impurities may be present (peak @ 27.8 minutes in >P5171).

SOUTH MONTCLAIR AVENUE LANDFILL SITE SEMIVOLATILES CONT'D.

- 11/30/88: All CCCs and SPCCs pass.
RRF for benzoic acid (-68.6%) had %D greater than 50%.
ID file did not automatically identify hexachlorocyclopentadiene, and some of the q values are low.
- 12/2/88: All CCCs and SPCCs pass.
RRF for 4-Nitrophenol (+54.9%) had %D greater than 50%.
ID file did not automatically identify hexachlorocyclopentadiene and 4,6-Dinitro-2-methylphenol. Some of the q values are low.

VII INTERNAL STANDARD AREA CONSISTENCY

All internal standard areas and retention times pass contract-specified criteria.

VIII TUNING

All DFTPPs passed contract-specified criteria. There is, however, a concern of system performance based upon examination of the associated total ion chromatograms of DFTPP in particular, TIC for >DF330 exhibits much background interference with the height of the peak at 4.38 minutes over twice that of DFTPP at 4.04 minutes. Also, >DF334 exhibits a high signal in the early part of the run.

IX METHOD BLANK ANALYSIS

Form 1C should have "B" as a qualifier for Bis(2-ethyl-hexyl)phthalate for SBLK414, SBLK427 and SBLK428, since this analyte was found in associated samples as well. See Exhibit B, B-36, Section B.1.

X ANALYTE IDENTIFICATIONS

The reference mass spectrum for Bis(2-ethylhexyl)phthalate is missing for comparison in MW-3.

XI LIBRARY SEARCHES

Using the 10% rule documented in Exhibit D, D-III-37, Section 6.2.1., the following peaks required library searching:

<u>Sample</u>	<u>Retention Time of Peak(s)</u>
MW-5	7.82 minutes
MW-6	7.82 minutes Appears to be Chlorobenzene
MW-8	7.84 minutes
SBLK414	5.56,34.6 minutes
SBLK427	34.6 minutes
SBLK428	12.42 minutes

SOUTH MONTCLAIR AVENUE LANDFILL SITE SEMIVOLATILES CONT'D.

XII TOTAL ION CHROMATOGRAM INTERRELATIONSHIPS

Examination of the TICs revealed some inconsistencies, detailed as follows:

1. MW-1 exhibits aliphatic hydrocarbons, yet MW-1 Base/N-RE does not.
2. MW-2 exhibits aliphatic hydrocarbons, yet MW-2 AE RE does not.
3. TIC not full (to 45 minutes) for MW-8.
4. Bis(2-ethylhexyl)phthalate present in field blank BN RE at a concentration of 40 μ g/L, but not in the initial analysis.

SOUTH MONTCLAIR AVENUE LANDFILL SITE PESTICIDE/PCBs

I HOLDING TIMES

All water samples extracted within five days. All water samples analyzed within forty days.

II METHOD BLANK ANALYSIS

As noted in the case narrative, the method blank violates Exhibit E-46, 1.2.1.1 criteria. Aldrin contamination was detected above the CRQL on both primary and confirmation columns in the method blank B-11/14/88 and all samples in varying amounts.

III MATRIX SPIKE/MATRIX SPIKE DUPLICATES (MS/MSD)

As noted in the case narrative, twelve out of twelve spike recoveries for MW#7 are outside limits. In all cases, the recoveries are too high (150%-289%). The RPD for all instances were good, however.

IV SURROGATE SPIKE ANALYSIS

The case narrative and Water Pesticide Surrogate Recovery forms show that two out twelve samples are outside the advisory QC limits (24%-154%) for DBC percent recovery. Using the calibration factors from the Pesticide Evaluation Standards Summary, the percent recoveries were calculated incorrectly. For example, Sample MW#1 has 42% recorded for percent recovery. Using the calibration factor from the primary analysis on 12/2/88, the percent recovery should be 208% (See Exhibit D-IV-44, Section 8):

$$\text{Area} \div \text{Califactor} \div \frac{\text{Mass}}{\text{Injected}} \div \frac{\text{Sample}}{\text{Size}} \times \frac{\text{Extract}}{\text{Volume}} \times 1000 \div \frac{\text{Conc.}}{\text{DBC Added}} \times 100$$
$$1266000 \div 2436000 \div 5\mu\text{l} \div 1000\text{ml} \times 20\text{ml} \times 1000 \div 1.0\mu\text{g/L} \times 100 = 208\%$$

V PESTICIDE ORGANICS ANALYSIS

For all samples reported, the Pesticide Organics Analysis Form reports the dilution factor as "1". For water samples, however, this dilution factor should apply only to samples with an extract volume of 10.0mls. According to the GC shot log, the actual extract volume analyzed was 20.0mls and the dilution factor should be (0.50). This would change the given detection limits by a factor of two. The water samples should be analyzed at 10.0ml extract volume in order to achieve the given detection limits.

VI EVALUATION STANDARDS SUMMARY

Linearity, 4,4'DDT and Endrin breakdown, and DBC retention time shift meet the criteria in all cases.

VII PESTICIDE/PCB STANDARDS SUMMARY

All calibration factors are incorrectly calculated by area divided by picograms instead of area divided by nanograms injected as outlined in Exhibit B-46 (Equation 1.6).

SOUTH MONTCLAIR AVENUE LANDFILL SITE PESTICIDE/PCBs CONT'D.

The identification of alpha and gamma chlordane is reversed on the 1.5% SP2250 + 1.95% SP2401 column. Gamma chlordane elutes before alpha chlordane on this column. See Exhibit D-IV-47 (Table 7).

Heptachlor falls outside its retention time window:

<u>Pest/PCB</u>	<u>R.T.</u>	<u>R.T. Window</u>	<u>Column/Date</u>	<u>Standard ID</u>
Heptachlor	6.68	6.25-6.51	Primary/12/2/88	INDA/INDB Run 167/168

VIII CHROMATOGRAPHY

The computer reproductions of chromatograms are not attenuated to ensure that peak response is >25% of full scale deflection necessary to be visually within the linear range. This is important for pattern recognition of multicomponent compounds and individual compounds of interest. It appears that computer reproduction of chromatograms were attenuated at varying scales, making visual comparisons of chromatograms difficult. See Exhibit D-IV-39, 6.2.1.-6.2.5.

SOUTH MONCLAIR AVENUE LANDFILL SITE INORGANICS

I ANALYSIS DATA SHEETS

All reported data is contract compliant.

II INITIAL AND CONTINUING CALIBRATION VERIFICATIONS

The CCV data for cyanide is missing. Therefore, all cyanide is not contract compliant. A chromium CCV value of 2010ppb, which represents an 80.0% recovery, is documented in the raw data but not listed on Form 2A. Therefore, Samples 872492 and 872493 for chromium are not contract compliant.

III CRDL STANDARDS

All contract-specific criteria was met and is contract compliant. The CRDL percent recovery for lead was mistakenly reported as 90%. The correct percent recovery is 80%.

IV BLANKS

The CCB data for cyanide is missing. Therefore, all cyanide data is not contract compliant. All other reported data is contract compliant.

V ICP INTERFERENCE CHECK SAMPLE

ICP techniques were not performed on this SDG.

VI SPIKE RECOVERIES

The spike recoveries for iron is not calculated. A review of the raw data has shown, however, that the "four times" rule of Exhibit E, Page 76 applies.

Antimony was spiked to ICP levels, but analyzed by Furnace AA techniques. These samples should have been redigested, respiked at the proper levels and reanalyzed. All antimony results are not contract compliant.

VII DUPLICATE RESULTS

The RPD value for silver does not meet the contract-specified requirements and is not flagged with an "*" on Form 6. They are, however, flagged on Form 1.

VIII LABORATORY CONTROL SAMPLE RESULTS

All results are contract compliant.

IX STANDARD ADDITION RESULTS

All data is contract compliant.

X ICP SERIAL DILUTION RESULTS

ICP techniques were not employed in performing these analyses.

XI HOLDING TIMES

All analyses were conducted within the prescribed holding times.

SOUTH MONTCLAIR AVENUE LANDFILL SITE INORGANICS CONT'D.

XII DETECTION LIMITS

IDLs are not supplied for the PD 5100 Furnace System. Lead, antimony and selenium were all analyzed on the PE 5100 System, and are, therefore, not in compliance.

XIII COMMENTS

The rounding rules of Exhibit B, Page 21, are not being adhered to the Flame AA raw data is not being supplied as specified in Exhibit B, Page 22. The summary forms are not being submitted in the proper order as specified in Exhibit B, Page 21.

The source and prep date of the calibration standards and the instrument system used to perform the results are not clearly supplied as specified in Exhibit B, Page 23.

Many Flame AA analyses are not being initially analyzed undiluted as specified in Exhibit A, Page 6.

APPENDIX F
Aquifer Testing Data

Saved Recorder Status

Type: 2109-5

Range: 0.00 - 11.80 feet

Recorder ID: 3745

Time at Recorder: 04/12/89 14:00:03

Last Update: 04/12/89 13:57:25

Signal process: Not Available

Values being saved:

averages

Alarm status: Low alarm @ 0.05 is OFF

Upper alarm @ 11.77 is OFF

Current averaging period: 00:00:01

Amount of time history data recorded:

00:02:29

Storage Capacity: 6515 values records:

01:48:35

Output compressed by a factor of 1

Date	Time	Avg	
04/12/89	13:57:34	8.40	*
04/12/89	13:57:35	8.40	*
04/12/89	13:57:36	8.40	*
04/12/89	13:57:37	8.41	*
04/12/89	13:57:38	8.41	*
04/12/89	13:57:39	8.40	*
04/12/89	13:57:40	8.41	*
04/12/89	13:57:41	8.40	*
04/12/89	13:57:42	8.41	*
04/12/89	13:57:43	8.40	*
04/12/89	13:57:44	8.41	*
04/12/89	13:57:45	8.40	*
04/12/89	13:57:46	8.41	*
04/12/89	13:57:47	8.40	*
04/12/89	13:57:48	8.41	*
04/12/89	13:57:49	8.40	*
04/12/89	13:57:50	8.41	*
04/12/89	13:57:51	8.40	*
04/12/89	13:57:52	8.41	*
04/12/89	13:57:53	8.40	*
04/12/89	13:57:54	8.41	*
04/12/89	13:57:55	8.40	*
04/12/89	13:57:56	8.41	*
04/12/89	13:57:57	8.41	*
04/12/89	13:57:58	8.41	*
04/12/89	13:57:59	8.40	*
04/12/89	13:58:00	8.41	*
04/12/89	13:58:01	8.41	*
04/12/89	13:58:02	8.41	*
04/12/89	13:58:03	8.41	*
04/12/89	13:58:04	8.41	*
04/12/89	13:58:05	8.40	*
04/12/89	13:58:06	8.40	*
04/12/89	13:58:07	8.40	*
04/12/89	13:58:08	8.40	*
04/12/89	13:58:09	8.40	*
04/12/89	13:58:10	8.40	*
04/12/89	13:58:11	8.40	*
04/12/89	13:58:12	8.40	*
04/12/89	13:58:13	8.40	*
04/12/89	13:58:14	8.40	*
04/12/89	13:58:15	8.40	*
04/12/89	13:58:16	8.39	*
04/12/89	13:58:17	8.41	*
04/12/89	13:58:18	8.40	*
04/12/89	13:58:19	8.41	*
04/12/89	13:58:20	8.41	*
04/12/89	13:58:21	8.41	*
04/12/89	13:58:22	8.41	*
04/12/89	13:58:23	8.42	*
04/12/89	13:58:24	8.40	*

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04/12/89 13:59:35 8.42
04/12/89 13:59:36 8.42
04/12/89 13:59:37 8.42
04/12/89 13:59:38 7.54 *
04/12/89 13:59:39 7.87
04/12/89 13:59:40 7.89
04/12/89 13:59:41 8.21
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04/12/89 13:59:46 8.40
04/12/89 13:59:47 8.40
04/12/89 13:59:48 8.41
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04/12/89 13:59:57 8.42
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04/12/89 14:00:01 8.42

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Type: 2109-5
9.34

feet

Header ID: 3745

South Montclair Ave. Landfill
Slug Test Data Well #1-1
April 12, 1989

Falling head test

8.97

8.60

8.24

7.87

7.50

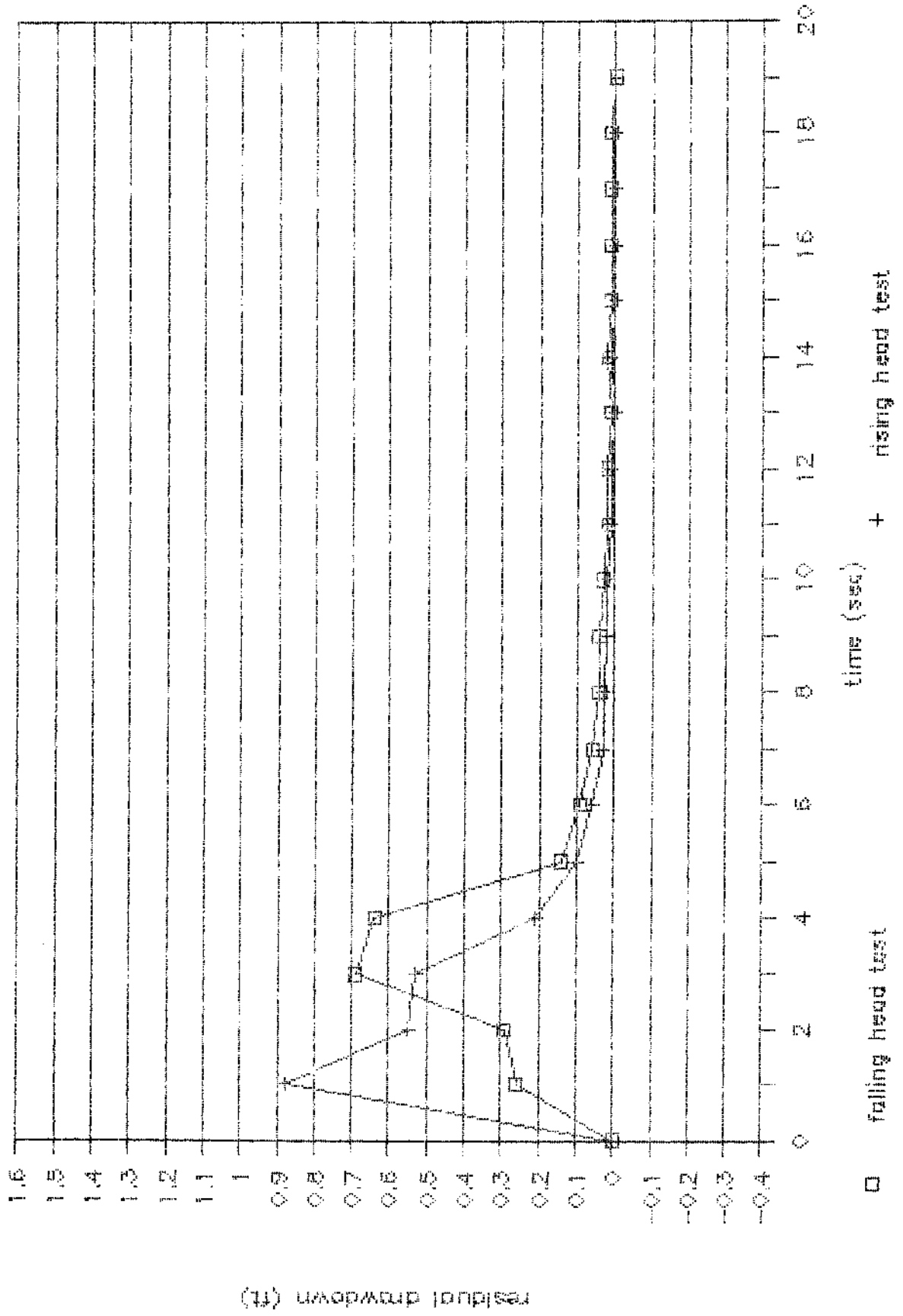
rising
head
test

04/12/89
13:57:34

04/12/89
13:58:48

04/12/89
14:00:02

well 1



Saved Recorder Status

Type: 2109-E

Range: 0.00 - 11.80 feet

Recorder ID: 3745

Time at Recorder: 04/12/89 13:43:47 Last Update: 04/12/89 13:39:08

Signal process: Not Available

Values being saved:

averages

Alarm status: Low alarm @ 0.05 is OFF Upper alarm @ 11.77 is OFF

Current averaging period: 00:00:01

Amount of time history data recorded: 00:01:52

Storage Capacity: 6515 values records: 01:48:35

Output compressed by a factor of 1

Date	Time	Avg	
04/12/89	13:41:55	8.04	*
04/12/89	13:41:56	8.05	*
04/12/89	13:41:57	8.04	*
04/12/89	13:41:58	8.03	*
04/12/89	13:41:59	8.04	*
04/12/89	13:42:00	8.04	*
04/12/89	13:42:01	8.04	*
04/12/89	13:42:02	8.04	*
04/12/89	13:42:03	8.04	*
04/12/89	13:42:04	8.04	*
04/12/89	13:42:05	8.04	*
04/12/89	13:42:06	8.04	*
04/12/89	13:42:07	8.04	*
04/12/89	13:42:08	8.04	*
04/12/89	13:42:09	8.04	*
04/12/89	13:42:10	8.04	*
04/12/89	13:42:11	8.04	*
04/12/89	13:42:12	8.04	*
04/12/89	13:42:13	8.04	*
04/12/89	13:42:14	8.04	*
04/12/89	13:42:15	8.04	*
04/12/89	13:42:16	8.04	*
04/12/89	13:42:17	8.04	*
04/12/89	13:42:18	8.04	*
04/12/89	13:42:19	8.04	*
04/12/89	13:42:20	8.04	*
04/12/89	13:42:21	8.04	*
04/12/89	13:42:22	8.04	*
04/12/89	13:42:23	8.04	*
04/12/89	13:42:24	8.04	*
04/12/89	13:42:25	8.04	*
04/12/89	13:42:26	8.04	*
04/12/89	13:42:27	8.04	*
04/12/89	13:42:28	8.04	*
04/12/89	13:42:29	8.04	*
04/12/89	13:42:30	8.04	*
04/12/89	13:42:31	8.04	*
04/12/89	13:42:32	8.04	*
04/12/89	13:42:33	8.04	*
04/12/89	13:42:34	8.03	*
04/12/89	13:42:35	8.04	*
04/12/89	13:42:36	8.04	*
04/12/89	13:42:37	8.03	*
04/12/89	13:42:38	8.04	*
04/12/89	13:42:39	8.04	*
04/12/89	13:42:40	8.04	*
04/12/89	13:42:41	8.03	*
04/12/89	13:42:42	8.03	*
04/12/89	13:42:43	8.04	*
04/12/89	13:42:44	8.04	*
04/12/89	13:42:45	8.04	*

Type: 2109-5

8.54

Feet

Recorder ID: 3745

South Montclair Ave. Laundromat
sluq Test Data Well M-2
Apr 12, 1989

failing head test

8.35

8.17

7.98

7.80

7.61

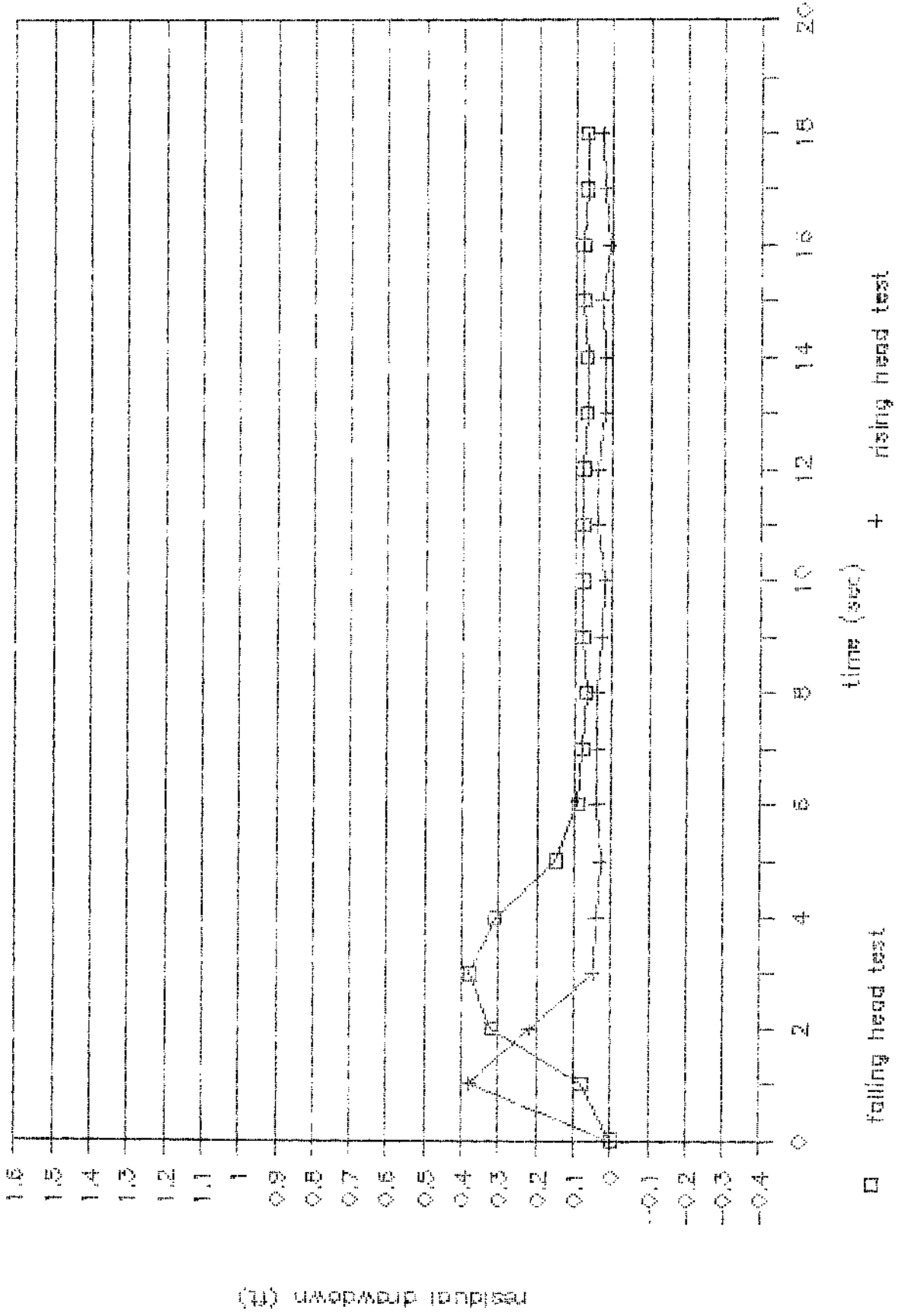
vising
head
test

04/12/89
13:41:55

04/12/89
13:42:51

04/12/89
13:43:47

well 2



Saved Recorder Status

Type: 2109-B

Range: 0.00 - 11.50 feet

Recorder ID: 3745

Time at Recorder: 04/12/89 11:21:09

Last Update: 04/12/89 11:07:30

Signal process: Not Available

Values being saved:

averages

Alarm status: Low alarm @ 0.05 is OFF

Upper alarm @ 11.77 is OFF

Current averaging period: 00:00:01

Amount of time history data recorded:

00:10:04

Storage Capacity: 6515 values records:

01:48:35

Output compressed by a factor of 1

Date	Time	Avg	
04/12/89	11:11:05	8.99	*
04/12/89	11:11:06	8.99	*
04/12/89	11:11:07	8.99	*
04/12/89	11:11:08	8.99	*
04/12/89	11:11:09	8.97	*
04/12/89	11:11:10	8.99	*
04/12/89	11:11:11	8.99	*
04/12/89	11:11:12	8.99	*
04/12/89	11:11:13	8.99	*
04/12/89	11:11:14	8.99	*
04/12/89	11:11:15	8.97	*
04/12/89	11:11:16	8.97	*
04/12/89	11:11:17	8.99	*
04/12/89	11:11:18	8.97	*
04/12/89	11:11:19	8.97	*
04/12/89	11:11:20	8.99	*
04/12/89	11:11:21	8.99	*
04/12/89	11:11:22	8.97	*
04/12/89	11:11:23	9.00	*
04/12/89	11:11:24	8.99	*
04/12/89	11:11:25	8.97	*
04/12/89	11:11:26	8.97	*
04/12/89	11:11:27	8.99	*
04/12/89	11:11:28	8.99	*
04/12/89	11:11:29	8.97	*
04/12/89	11:11:30	8.97	*
04/12/89	11:11:31	8.97	*
04/12/89	11:11:32	8.99	*
04/12/89	11:11:33	8.99	*
04/12/89	11:11:34	8.97	*
04/12/89	11:11:35	8.99	*
04/12/89	11:11:36	8.97	*
04/12/89	11:11:37	8.99	*
04/12/89	11:11:38	8.99	*
04/12/89	11:11:39	8.99	*
04/12/89	11:11:40	8.97	*
04/12/89	11:11:41	8.97	*
04/12/89	11:11:42	8.97	*
04/12/89	11:11:43	8.99	*
04/12/89	11:11:44	8.99	*
04/12/89	11:11:45	8.99	*
04/12/89	11:11:46	8.99	*
04/12/89	11:11:47	8.97	*
04/12/89	11:11:48	8.97	*
04/12/89	11:11:49	8.99	*
04/12/89	11:11:50	8.97	*
04/12/89	11:11:51	8.97	*
04/12/89	11:11:52	8.99	*
04/12/89	11:11:53	8.99	*
04/12/89	11:11:54	8.99	*
04/12/89	11:11:55	8.99	*

Saved Recorder Status

Type: 2109-5 Range: 0.00 - 11.80 feet Recorder ID: 3745
 Time at Recorder: 04/12/89 13:10:03 Last Update: 04/12/89 13:02:27
 Signal process: Not Available
 Values being saved: averages
 Alarm status: Low alarm @ 0.05 is OFF Upper alarm @ 11.77 is OFF
 Current averaging period: 00:00:01
 Amount of time history data recorded: 00:01:52
 Storage Capacity: 6515 values records: 01:48:35
 Output compressed by a factor of 1

Date	Time	Avg			
04/12/89	13:08:11	9.22	*		
04/12/89	13:08:12	9.22	*		
04/12/89	13:08:13	9.22	*		
04/12/89	13:08:14	9.22	*		
04/12/89	13:08:15	9.22	*		
04/12/89	13:08:16	9.23	*		
04/12/89	13:08:17	9.23	*		
04/12/89	13:08:18	9.23	*		
04/12/89	13:08:19	9.24	*		
04/12/89	13:08:20	9.23	*		
04/12/89	13:08:21	9.22	*		
04/12/89	13:08:22	9.22	*		
04/12/89	13:08:23	9.23	*		
04/12/89	13:08:24	9.23	*		
04/12/89	13:08:25	9.23	*		
04/12/89	13:08:26	9.23	*		
04/12/89	13:08:27	9.22	*		
04/12/89	13:08:28	9.22	*		
04/12/89	13:08:29	9.22	*		
04/12/89	13:08:30	9.22	*		
04/12/89	13:08:31	9.23	*		
04/12/89	13:08:32	9.23	*		
04/12/89	13:08:33	9.23	*		
04/12/89	13:08:34	9.24	*		
04/12/89	13:08:35	9.23	*		
04/12/89	13:08:36	9.23	*		
04/12/89	13:08:37	9.23	*		
04/12/89	13:08:38	9.22	*		
04/12/89	13:08:39	9.23	*		
04/12/89	13:08:40	9.23	*		
04/12/89	13:08:41	9.23	*		
04/12/89	13:08:42	9.22	*		
04/12/89	13:08:43	9.22	*		
04/12/89	13:08:44	9.22	*		
04/12/89	13:08:45	9.24	*		
04/12/89	13:08:46	9.23	*		
04/12/89	13:08:47	9.24	*		
04/12/89	13:08:48	9.24	*		
04/12/89	13:08:49	9.24	*		
04/12/89	13:08:50	9.34	*		
04/12/89	13:08:51	9.44	*		
04/12/89	13:08:52	9.24	*		
04/12/89	13:08:53	9.20	*		
04/12/89	13:08:54	9.22	*		
04/12/89	13:08:55	9.22	*		
04/12/89	13:08:56	9.46	*		
04/12/89	13:08:57	9.29	*		
04/12/89	13:08:58	9.29	*		
04/12/89	13:08:59	9.40	*		
04/12/89	13:09:00	10.02	*		
04/12/89	13:09:01	9.10	*		

04/12/89	13:09:02	9.24	*
04/12/89	13:09:03	9.24	*
04/12/89	13:09:04	9.24	*
04/12/89	13:09:05	9.23	*
04/12/89	13:09:06	9.24	*
04/12/89	13:09:07	9.24	*
04/12/89	13:09:08	9.23	*
04/12/89	13:09:09	9.23	*
04/12/89	13:09:10	9.23	*
04/12/89	13:09:11	9.23	*
04/12/89	13:09:12	9.24	*
04/12/89	13:09:13	9.24	*
04/12/89	13:09:14	9.24	*
04/12/89	13:09:15	9.24	*
04/12/89	13:09:16	9.23	*
04/12/89	13:09:17	9.23	*
04/12/89	13:09:18	9.23	*
04/12/89	13:09:19	9.23	*
04/12/89	13:09:20	9.24	*
04/12/89	13:09:21	9.24	*
04/12/89	13:09:22	9.24	*
04/12/89	13:09:23	9.23	*
04/12/89	13:09:24	9.22	*
04/12/89	13:09:25	9.22	*
04/12/89	13:09:26	9.25	*
04/12/89	13:09:27	9.23	*
04/12/89	13:09:28	9.24	*
04/12/89	13:09:29	8.98	*
04/12/89	13:09:30	8.90	*
04/12/89	13:09:31	8.94	*
04/12/89	13:09:32	9.19	*
04/12/89	13:09:33	9.20	*
04/12/89	13:09:34	9.20	*
04/12/89	13:09:35	9.22	*
04/12/89	13:09:36	9.22	*
04/12/89	13:09:37	9.22	*
04/12/89	13:09:38	9.22	*
04/12/89	13:09:39	9.22	*
04/12/89	13:09:40	9.22	*
04/12/89	13:09:41	9.22	*
04/12/89	13:09:42	9.22	*
04/12/89	13:09:43	9.22	*
04/12/89	13:09:44	9.23	*
04/12/89	13:09:45	9.23	*
04/12/89	13:09:46	9.24	*
04/12/89	13:09:47	9.23	*
04/12/89	13:09:48	9.22	*
04/12/89	13:09:49	9.20	*
04/12/89	13:09:50	9.20	*
04/12/89	13:09:51	9.20	*
04/12/89	13:09:52	9.20	*
04/12/89	13:09:53	9.22	*
04/12/89	13:09:54	9.22	*
04/12/89	13:09:55	9.22	*
04/12/89	13:09:56	9.20	*
04/12/89	13:09:57	9.20	*
04/12/89	13:09:58	9.20	*
04/12/89	13:09:59	9.20	*
04/12/89	13:10:00	9.20	*
04/12/89	13:10:01	9.22	*
04/12/89	13:10:02	9.22	*

Type: 2109-5
10.27 Recorder ID: 3745
feet

South Montclair Ave. Lanthier
slug Test Data 101 M15
April 12, 1989

Falling
head
test

9.99

9.71

9.44

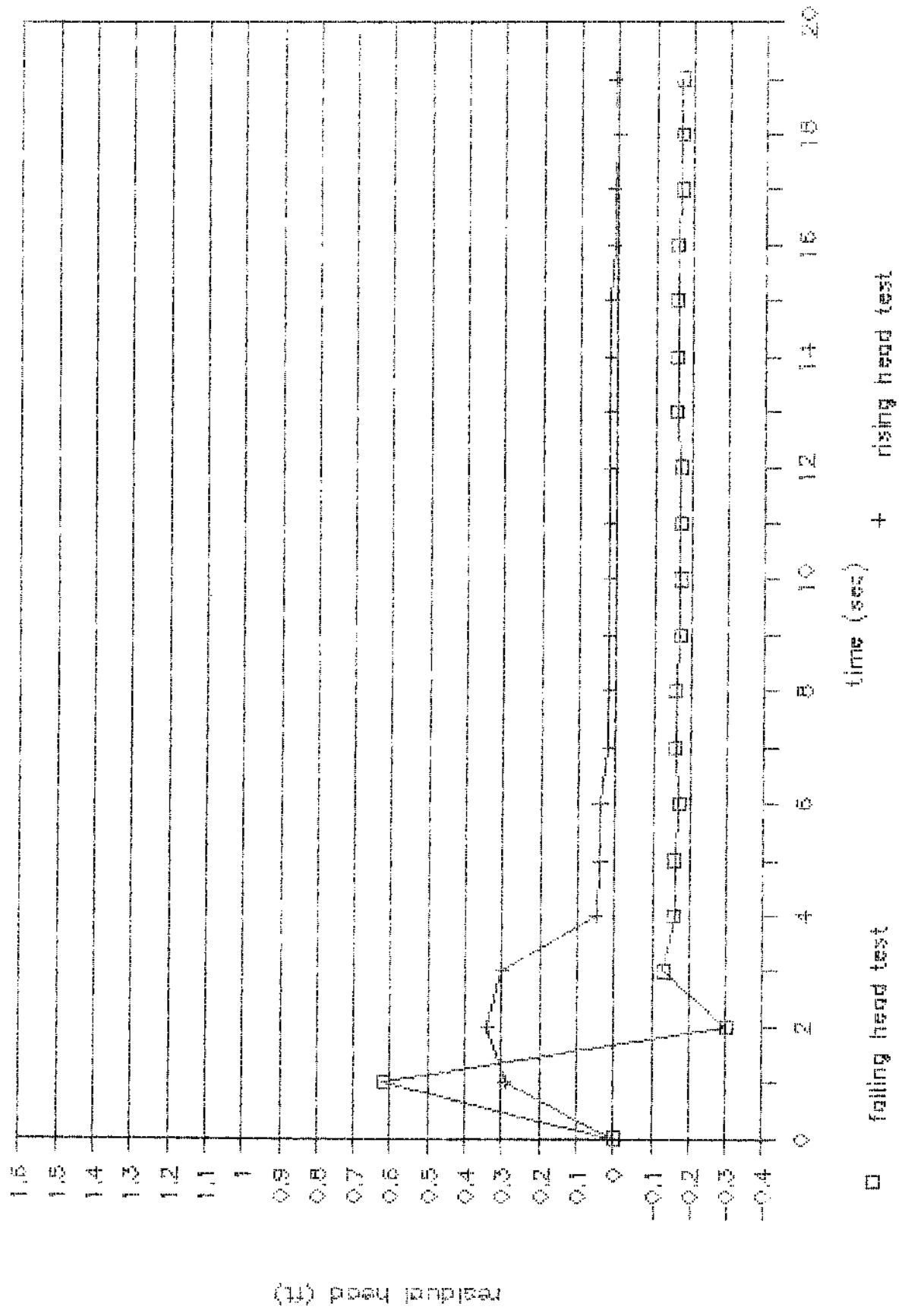
9.16

Rising
head
test

8.88

04/12/89 04/12/89
13:08:11 13:09:07
13:10:03

well 5



Saved Recorder Status

Type: 2109-5 Range: 0.00 - 11.80 feet Recorder ID: 3745
 Time at Recorder: 04/12/89 12:40:03 Last Update: 04/12/89 12:37:06
 Signal process: Not Available
 Values being saved: averages
 Alarm status: Low alarm @ 0.05 is OFF Upper alarm @ 11.77 is OFF
 Current averaging period: 00:00:01
 Amount of time history data recorded: 00:02:40
 Storage Capacity: 3515 values records: 01:48:35
 Output compressed by a factor of 1

Date	Time	Avg	
04/12/89	12:37:23	5.55	*
04/12/89	12:37:24	5.55	*
04/12/89	12:37:25	5.55	*
04/12/89	12:37:26	5.55	*
04/12/89	12:37:27	5.55	*
04/12/89	12:37:28	5.55	*
04/12/89	12:37:29	5.55	*
04/12/89	12:37:30	5.56	*
04/12/89	12:37:31	5.56	*
04/12/89	12:37:32	5.56	*
04/12/89	12:37:33	5.56	*
04/12/89	12:37:34	5.55	*
04/12/89	12:37:35	5.56	*
04/12/89	12:37:36	5.56	*
04/12/89	12:37:37	5.56	*
04/12/89	12:37:38	5.56	*
04/12/89	12:37:39	5.56	*
04/12/89	12:37:40	5.56	*
04/12/89	12:37:41	5.56	*
04/12/89	12:37:42	5.56	*
04/12/89	12:37:43	5.56	*
04/12/89	12:37:44	5.56	*
04/12/89	12:37:45	5.55	*
04/12/89	12:37:46	5.56	*
04/12/89	12:37:47	5.56	*
04/12/89	12:37:48	5.56	*
04/12/89	12:37:49	5.56	*
04/12/89	12:37:50	5.56	*
04/12/89	12:37:51	5.56	*
04/12/89	12:37:52	5.56	*
04/12/89	12:37:53	5.57	*
04/12/89	12:37:54	5.57	*
04/12/89	12:37:55	5.57	*
04/12/89	12:37:56	5.57	*
04/12/89	12:37:57	5.57	*
04/12/89	12:37:58	5.56	*
04/12/89	12:37:59	5.57	*
04/12/89	12:38:00	5.57	*
04/12/89	12:38:01	5.57	*
04/12/89	12:38:02	5.57	*
04/12/89	12:38:03	5.57	*
04/12/89	12:38:04	5.57	*
04/12/89	12:38:05	5.57	*
04/12/89	12:38:06	5.56	*
04/12/89	12:38:07	5.56	*
04/12/89	12:38:08	5.56	*
04/12/89	12:38:09	5.57	*
04/12/89	12:38:10	5.57	*
04/12/89	12:38:11	5.57	*
04/12/89	12:38:12	5.57	*
04/12/89	12:38:13	5.57	*

04/12/89 12:39:21 5.48
04/12/89 12:39:22 5.56
04/12/89 12:39:23 5.58
04/12/89 12:39:24 5.58
04/12/89 12:39:25 5.58
04/12/89 12:39:26 5.58
04/12/89 12:39:27 5.58
04/12/89 12:39:28 5.58
04/12/89 12:39:29 5.58
04/12/89 12:39:30 5.58
04/12/89 12:39:31 5.58
04/12/89 12:39:32 5.07
04/12/89 12:39:33 5.58
04/12/89 12:39:34 5.58
04/12/89 12:39:35 5.58
04/12/89 12:39:36 5.58
04/12/89 12:39:37 5.58
04/12/89 12:39:38 5.58
04/12/89 12:39:39 5.58
04/12/89 12:39:40 5.58
04/12/89 12:39:41 5.58
04/12/89 12:39:42 5.58
04/12/89 12:39:43 5.58
04/12/89 12:39:44 5.58
04/12/89 12:39:45 5.58
04/12/89 12:39:46 5.57
04/12/89 12:39:47 5.58
04/12/89 12:39:48 5.58
04/12/89 12:39:49 5.58
04/12/89 12:39:50 5.58
04/12/89 12:39:51 5.07
04/12/89 12:39:52 5.58
04/12/89 12:39:53 5.58
04/12/89 12:39:54 5.58
04/12/89 12:39:55 5.58
04/12/89 12:39:56 5.58
04/12/89 12:39:57 5.58
04/12/89 12:39:58 5.58
04/12/89 12:39:59 5.58
04/12/89 12:40:00 5.58
04/12/89 12:40:01 5.58
04/12/89 12:40:02 5.58

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Type: 2109-5 Recorder ID: 3745

6.00 feet

South Portland Ave. Traffic
Signal Test Data 12:10:06
April 12, 1989

5.81
5.63
5.44
5.26
5.08

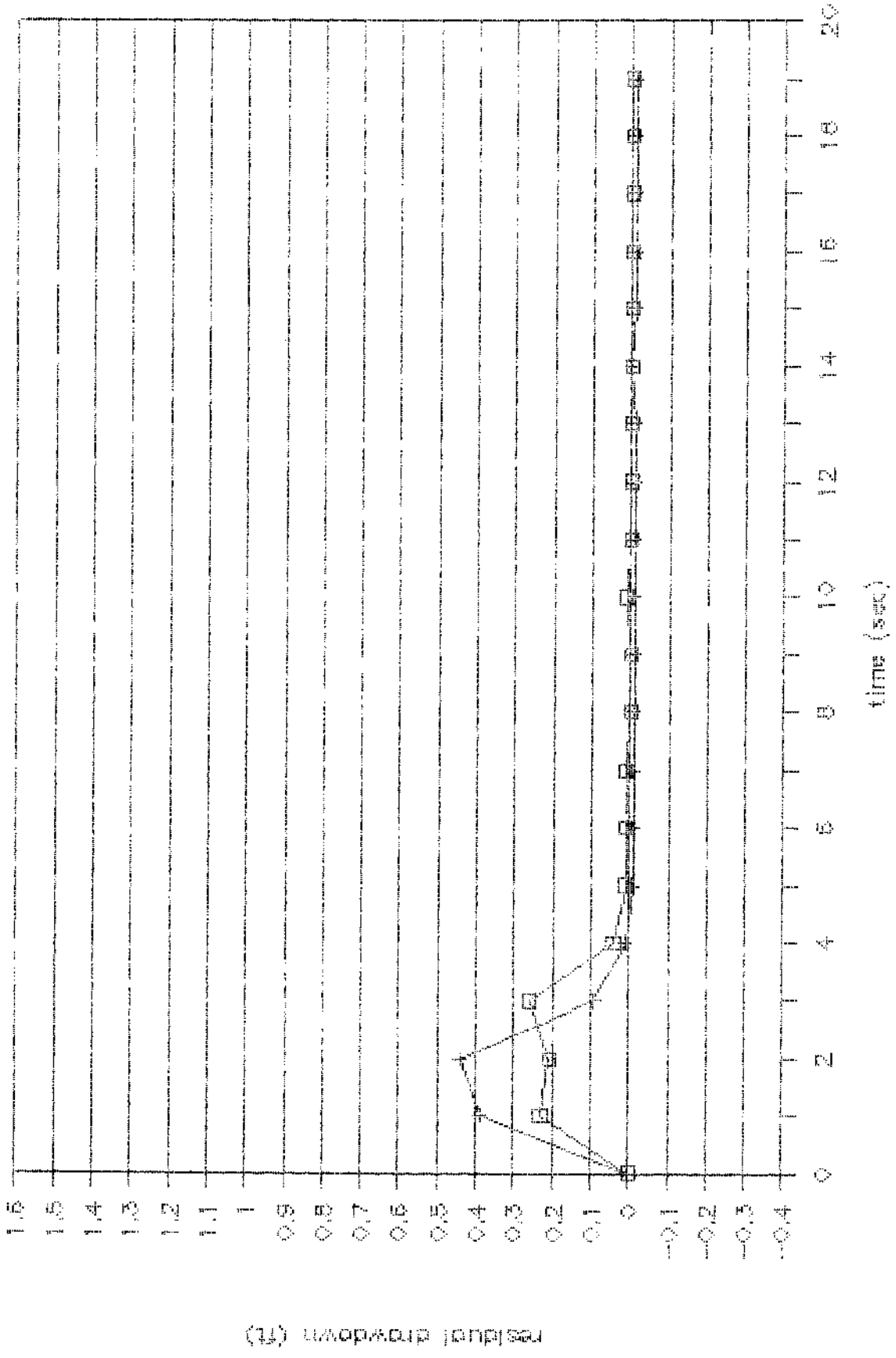
rising
head
test

04/12/89
12:40:03

04/12/89
12:38:43

04/12/89
12:37:23

well 6



Saved Recorder Status

Type: 2109-5

Range: 0.00 - 11.80 feet

Recorder ID: 3745

Time at Recorder: 04/12/89 12:17:18 Last Update: 04/12/89 12:14:21

Signal process: Not Available

Values being saved: averages

Alarm status: Low alarm @ 0.05 is OFF Upper alarm @ 11.77 is OFF

Current averaging period: 00:00:01

Amount of time history data recorded: 00:02:49

Storage Capacity: 6515 values recorded: 01:48:35

Output compressed by a factor of 1

Date	Time	Avg	
04/12/89	12:14:29	7.90	*
04/12/89	12:14:30	7.90	*
04/12/89	12:14:31	7.89	*
04/12/89	12:14:32	7.90	*
04/12/89	12:14:33	7.90	*
04/12/89	12:14:34	7.90	*
04/12/89	12:14:35	7.90	*
04/12/89	12:14:36	7.89	*
04/12/89	12:14:37	7.90	*
04/12/89	12:14:38	7.90	*
04/12/89	12:14:39	7.90	*
04/12/89	12:14:40	7.90	*
04/12/89	12:14:41	7.90	*
04/12/89	12:14:42	7.89	*
04/12/89	12:14:43	7.90	*
04/12/89	12:14:44	7.90	*
04/12/89	12:14:45	7.90	*
04/12/89	12:14:46	7.89	*
04/12/89	12:14:47	7.90	*
04/12/89	12:14:48	7.91	*
04/12/89	12:14:49	7.90	*
04/12/89	12:14:50	7.90	*
04/12/89	12:14:51	7.90	*
04/12/89	12:14:52	7.90	*
04/12/89	12:14:53	7.90	*
04/12/89	12:14:54	7.89	*
04/12/89	12:14:55	7.89	*
04/12/89	12:14:56	7.90	*
04/12/89	12:14:57	7.89	*
04/12/89	12:14:58	7.90	*
04/12/89	12:14:59	7.90	*
04/12/89	12:15:00	7.90	*
04/12/89	12:15:01	7.90	*
04/12/89	12:15:02	7.90	*
04/12/89	12:15:03	7.90	*
04/12/89	12:15:04	7.90	*
04/12/89	12:15:05	7.90	*
04/12/89	12:15:06	7.90	*
04/12/89	12:15:07	7.90	*
04/12/89	12:15:08	7.90	*
04/12/89	12:15:09	7.90	*
04/12/89	12:15:10	7.90	*
04/12/89	12:15:11	7.90	*
04/12/89	12:15:12	7.90	*
04/12/89	12:15:13	7.89	*
04/12/89	12:15:14	7.90	*
04/12/89	12:15:15	7.90	*
04/12/89	12:15:16	7.90	*
04/12/89	12:15:17	7.91	*
04/12/89	12:15:18	7.90	*
04/12/89	12:15:19	7.90	*

04/12/89	12:16:27	7.88	*
04/12/89	12:16:28	7.89	*
04/12/89	12:16:29	7.89	*
04/12/89	12:16:30	7.89	*
04/12/89	12:16:31	7.89	*
04/12/89	12:16:32	7.89	*
04/12/89	12:16:33	7.89	*
04/12/89	12:16:34	7.89	*
04/12/89	12:16:35	7.90	*
04/12/89	12:16:36	7.88	*
04/12/89	12:16:37	7.89	*
04/12/89	12:16:38	7.89	*
04/12/89	12:16:39	7.89	*
04/12/89	12:16:40	7.90	*
04/12/89	12:16:41	7.88	*
04/12/89	12:16:42	7.88	*
04/12/89	12:16:43	7.89	*
04/12/89	12:16:44	7.89	*
04/12/89	12:16:45	7.89	*
04/12/89	12:16:46	7.89	*
04/12/89	12:16:47	7.89	*
04/12/89	12:16:48	7.89	*
04/12/89	12:16:49	7.89	*
04/12/89	12:16:50	7.89	*
04/12/89	12:16:51	7.84	*
04/12/89	12:16:52	7.95	*
04/12/89	12:16:53	7.87	*
04/12/89	12:16:54	7.91	*
04/12/89	12:16:55	7.89	*
04/12/89	12:16:56	7.90	*
04/12/89	12:16:57	7.89	*
04/12/89	12:16:58	7.88	*
04/12/89	12:16:59	7.89	*
04/12/89	12:17:00	7.87	*
04/12/89	12:17:01	7.56	*
04/12/89	12:17:02	7.57	*
04/12/89	12:17:03	7.53	*
04/12/89	12:17:04	7.82	*
04/12/89	12:17:05	7.87	*
04/12/89	12:17:06	7.88	*
04/12/89	12:17:07	7.88	*
04/12/89	12:17:08	7.89	*
04/12/89	12:17:09	7.88	*
04/12/89	12:17:10	7.89	*
04/12/89	12:17:11	7.89	*
04/12/89	12:17:12	7.89	*
04/12/89	12:17:13	7.89	*
04/12/89	12:17:14	7.90	*
04/12/89	12:17:15	7.88	*
04/12/89	12:17:16	7.88	*

Type: 2100-5

8.41

Test

Recorder ID: 3745

04/12/89
12:12:19

test
test

8.79

8.47

8.14

7.82

using
head
test

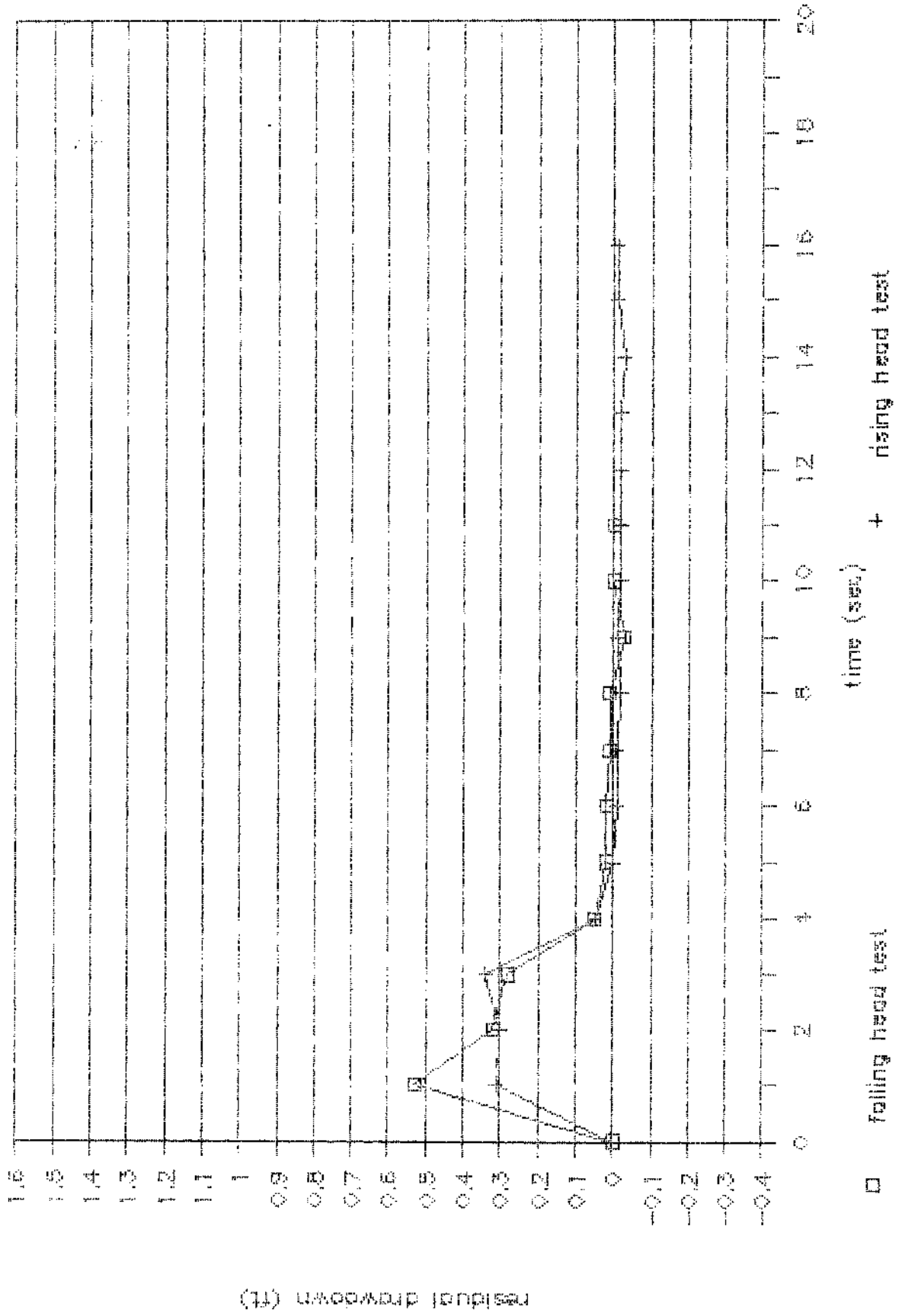
7.50

04/12/89
12:14:29

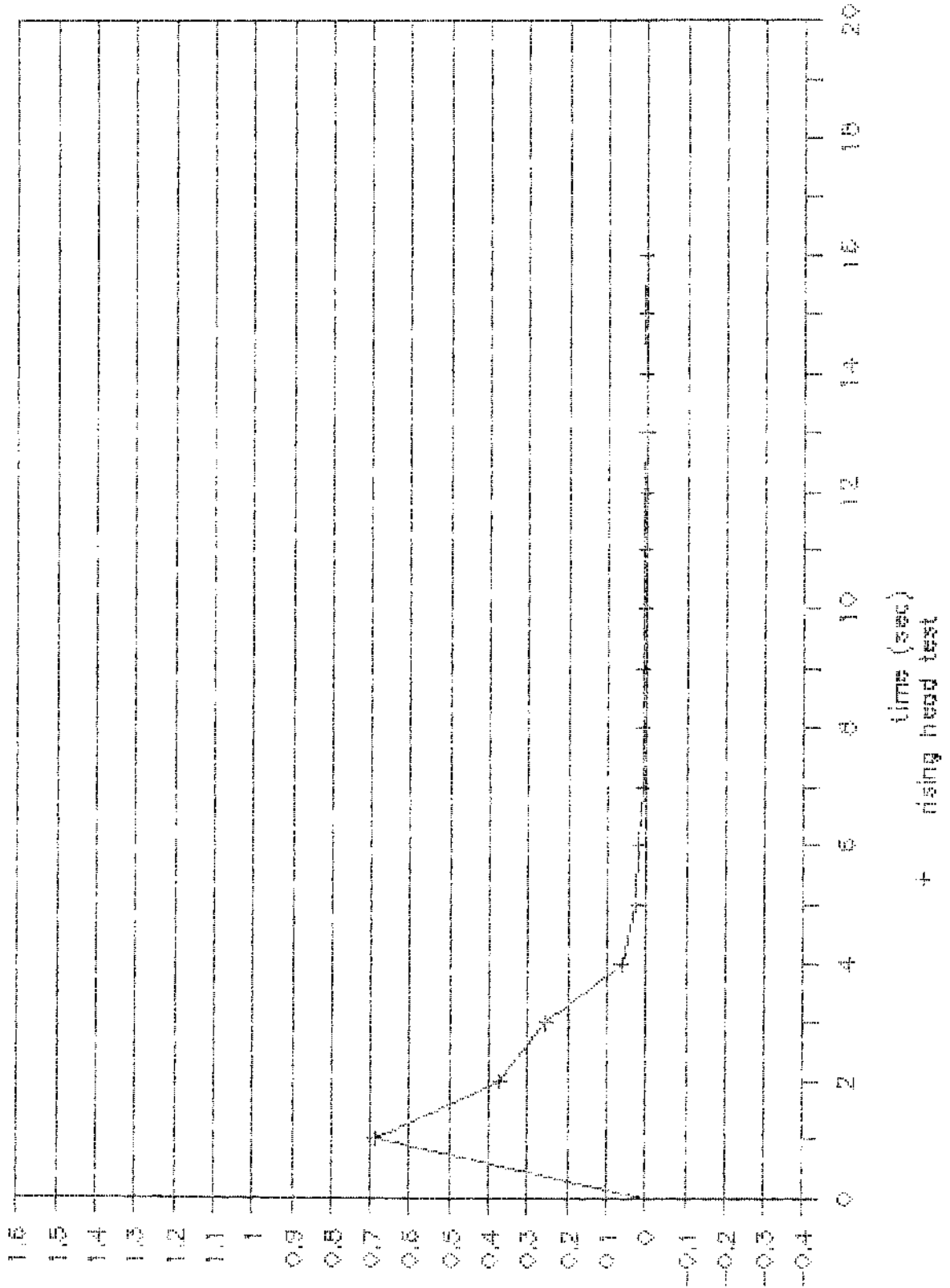
04/12/89
12:15:53

04/12/89
12:17:17

well 7

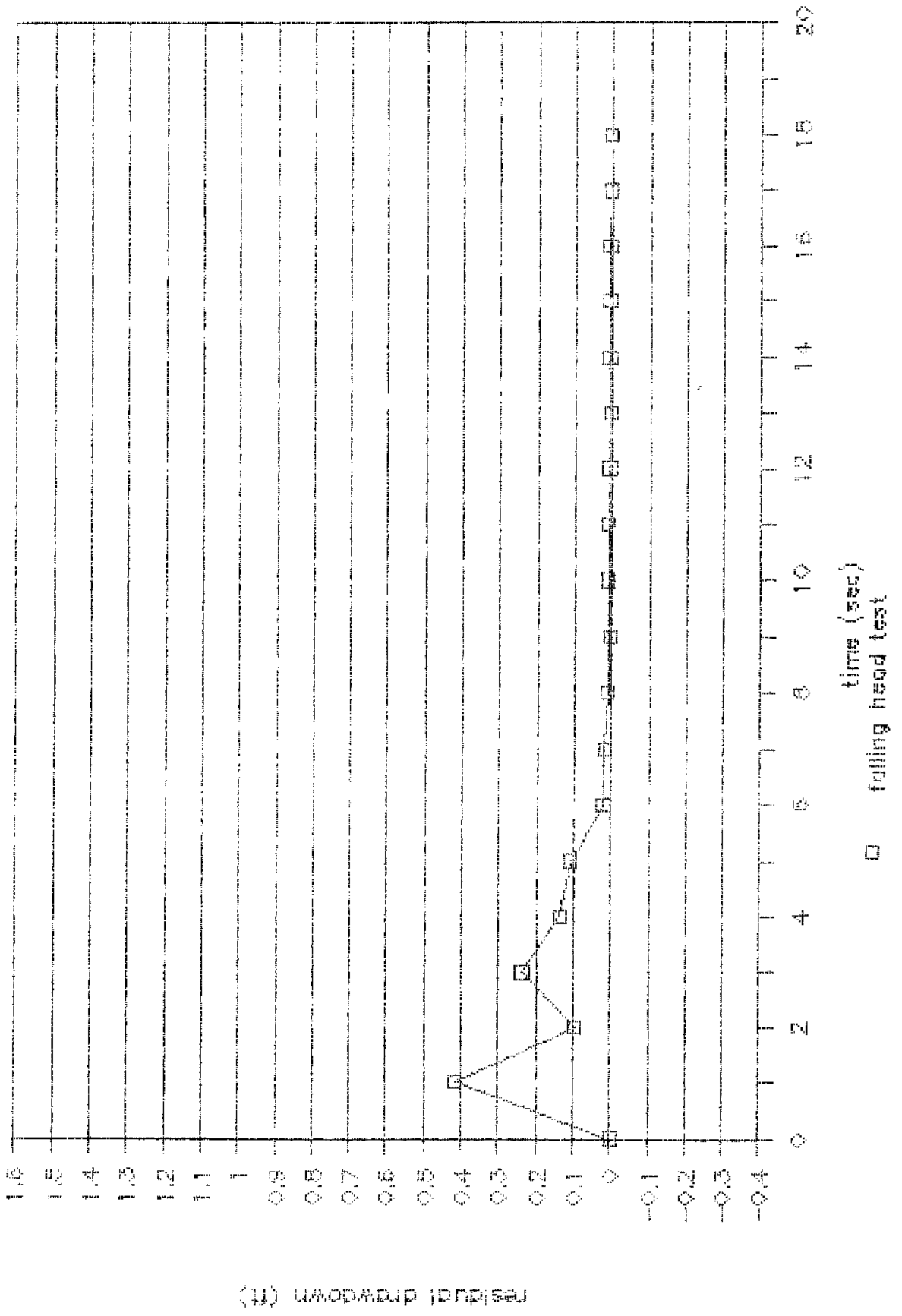


average of wells 1--7

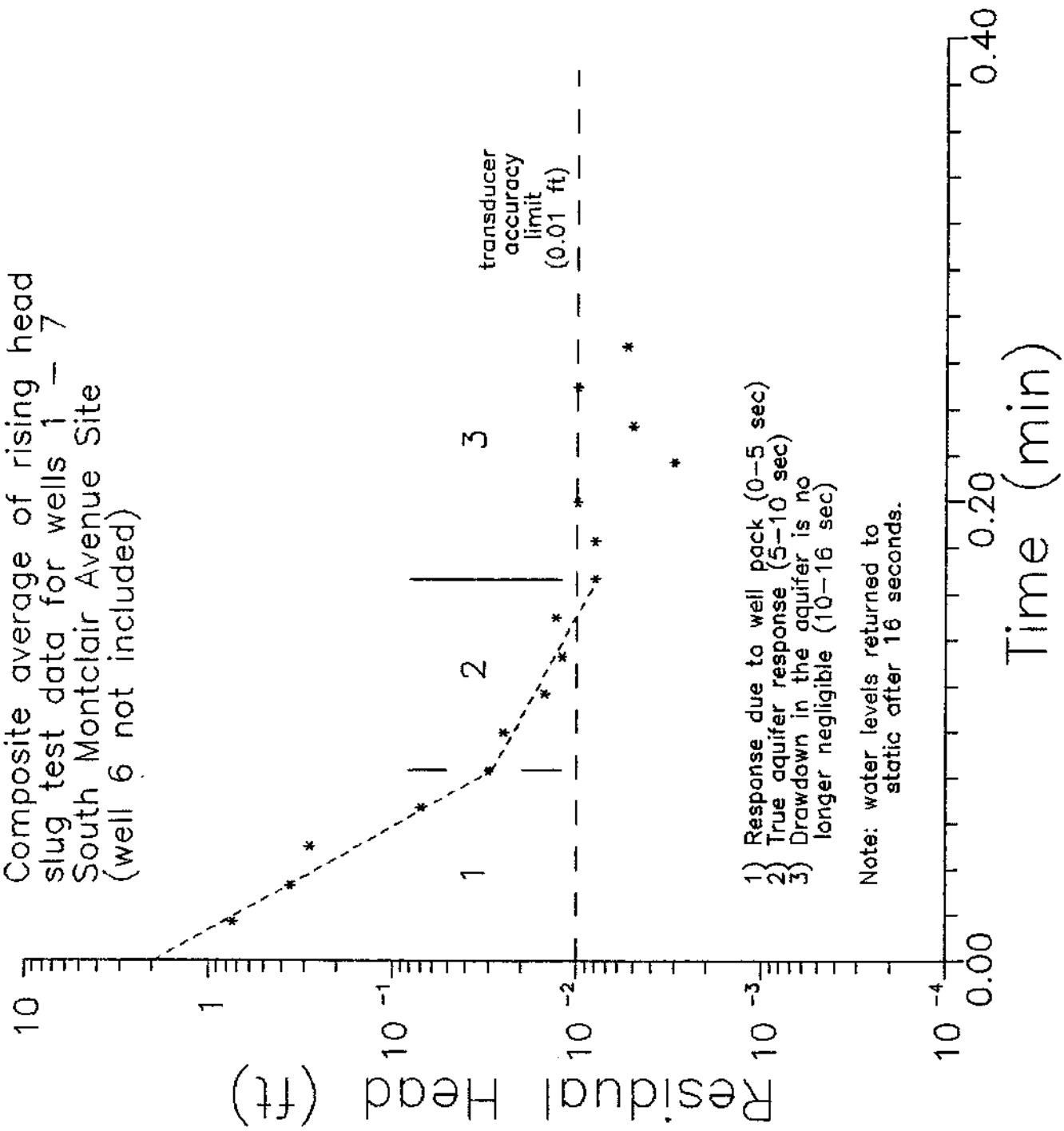


(11) residual drawdown (ft)

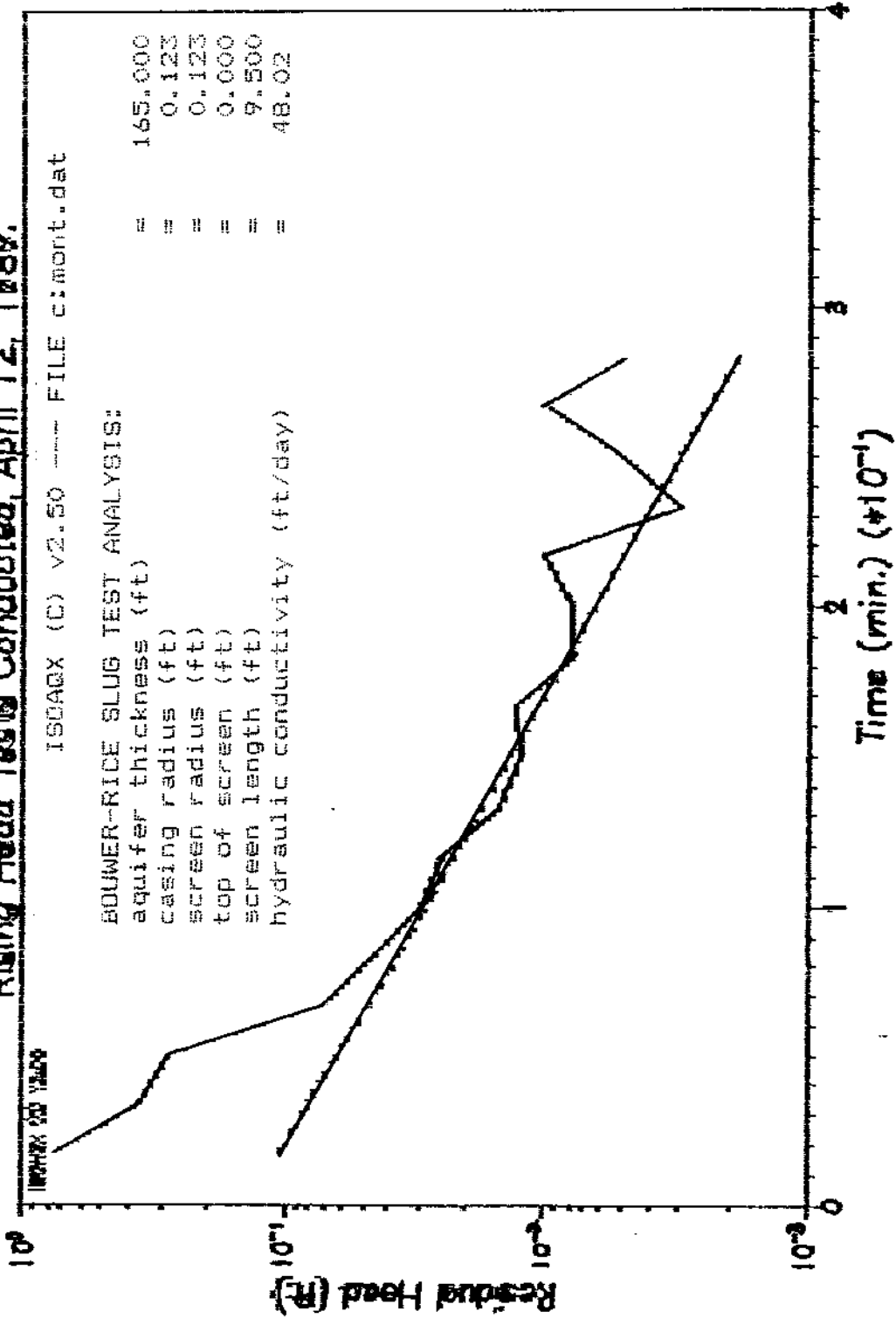
average of wells 1 -- 7



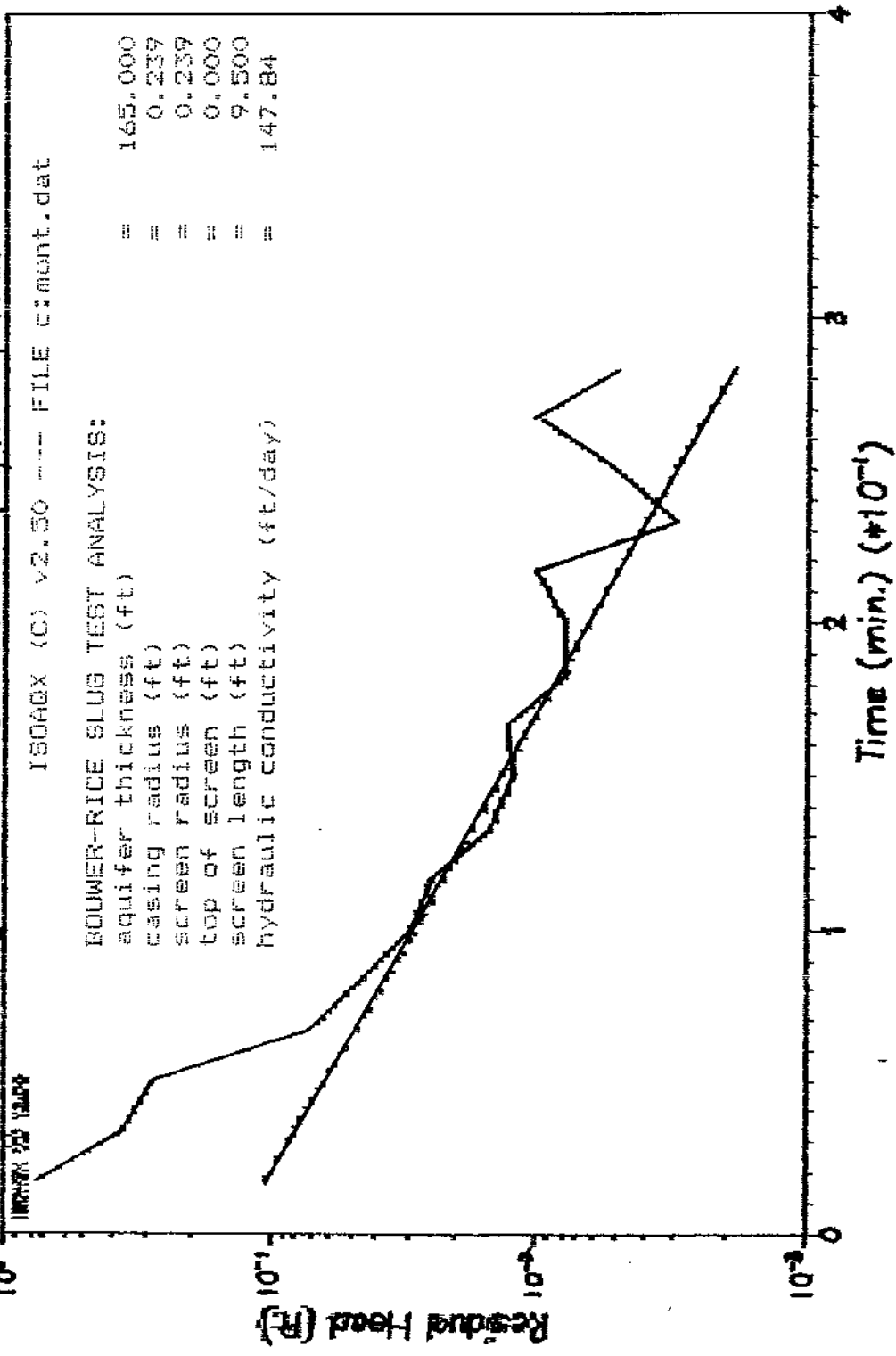
Composite average of rising head slug test data for wells 1 - 7 South Montclair Avenue Site (well 6 not included)



South Montclair Avenue Slug Tests
 Composite Average Data Set Created by wells 1-5 and 7
 Rising Head Tests Conducted, April 12, 1988.



South Montclair Avenue Slug Tests
 Composite Average Data Set Created by wells 1-5 and 7
 Rising Head Tests Conducted April 12, 1988.



Calculation of the effective radius of a gravel packed well

If water level changes occur within the gravel pack, then the well radius equals the radius of the borehole, not the casing radius.

Using the equation:

$$R_{ce} = \text{sqrt} [rc^2 + (rw^2 - rc^2)f]$$

Where:

R_{ce} = the effective well radius

rc = casing radius

rw = borehole radius

f = (gravel pack envelope porosity) - (residual water content after quick drainage)

Unit Conversion

inch to feet conversion	
inches =	5
feet =	0.417

Data Input

Casing Radius (rc) (Feet)	Borehole Radius (rw) (Feet)	f %
0.083	0.417	0.05

Output

Effective Radius (R _{ce}) (Feet)
0.123

Calculation of water level displacement for slug test analysis

Calculate the absolute water level change in a well of "x" radius due to the introduction or the withdrawal of a slug with radius "y".

Using the equation: $V = \pi * R^2 * L$

Where: R=radius of the slug ("y")
L=length of the slug inserted into water

Method: 1) Calculate volume of the slug
2) Solve equation for "L" using using:
V = volume of slug
R = radius of well ("x")

Unit Conversion

inch to feet conversion	
inches =	0.5
feet =	0.042

Data Input

Slug Radius (Feet)	Slug Length (Feet)	Well Radius (Feet)
0.042	8	0.123

Output

Volume of Slug (Feet ³)	Water Displ. (In Well) (Feet)
0.044	0.93

Calculation of the effective radius of a gravel packed well

If water level changes occur within the gravel pack, then the well radius equals the radius of the borehole, not the casing radius.

Using the equation:

$$R_{ce} = \text{sqrt} [rc^2 + (rw^2 - rc^2)f]$$

Where:

R_{ce} = the effective well radius

rc = casing radius

rw = borehole radius

f = (gravel pack envelope porosity) - (residual water content after quick drainage)

Unit Conversion

inch to feet conversion	
inches =	5
feet =	0.417

Data Input

Casing Radius (rc) (Feet)	Borehole Radius (rw) (Feet)	(f) %
0.083	0.417	0.3

Output

Effective Radius (Rce) (Feet)
0.239

Calculation of water level displacement for slug test analysis

Calculate the absolute water level change in a well of "x" radius due to the introduction or the withdrawal of a slug with radius "y".

Using the equation: $V = \pi * R^2 * L$

Where: R=radius of the slug ("y")
L=length of the slug inserted into water

Method: 1) Calculate volume of the slug
2) Solve equation for "L" using using:
V = volume of slug
R = radius of well ("x")

Unit Conversion

inch to feet conversion	
inches =	0.5
feet =	0.042

Data Input

Slug Radius (Feet)	Slug Length (Feet)	Well Radius (Feet)
0.042	8	0.239

Output

Volume of Slug (Feet ³)	Water Displ. (In Well) (Feet)
0.044	0.25



APPENDIX G

Names and Addresses of Subcontractors

**Names and Addresses of Subcontractors
used in Phase II Investigation**

**Roux Associates, Inc.
775 Park Avenue, Suite 255
Huntington, NY 11743**

**Water Resources, Inc.
35-01 222 Street
Bayside, NY**

**Marine Pollution Control
P.O. Box 2220
E. Patchogue, NY 11772**

**H2M Labs, Inc.
575 Broad Hollow Road
Melville, NY 11747**

**Storch Associates
30 Jericho Executive Plaza
Jericho, NY 11755**

**Geo-Tech Associates
43 South Avenue
P.O. Box 129
Fanwood, New Jersey 07023**

X

APPENDIX H

Federal and State Water Standards and Goals

FEDERAL AND STATE WATER STANDARDS AND GOALS

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

- [1] 100 ug/l for the total of these four compounds for community water systems serving greater than 10,000 persons and which add a disinfectant (oxidant) to the water.
- [2] 100 ug/l for the total of these four compounds for community water systems.
- [3] Sources of water for drinking, culinary or food processing purposes - aquatic life protection: 5 ug/l. Primary contact recreation: 5 ug/l.
- [4] Not detectable by tests or analytical determinations referenced in 6 NYCRR 703.4.

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

FEDERAL AND STATE WATER STANDARDS AND GOALS

TCL SEMI-VOLATILE ORGANICS

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

- [1] Sources of water for drinking, culinary or food processing purposes
- aquatic life protection: 5 ug/l; primary contact recreation: 5 ug/l
- [2] Sources of water for drinking, culinary or food processing purposes
- aquatic life protection: 0.45 ug/l; primary contact recreation: 0.45 ug/l
- [3] Sources of water for drinking, culinary or food processing purposes
- aquatic life protection: 0.4 ug/l; primary contact recreation: 0.4 ug/l

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

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

FEDERAL AND STATE WATER STANDARDS AND GOALS

TCL SEMI-VOLATILE ORGANICS

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

- [1] Sources of water for drinking, culinary or food processing purposes
- aquatic life protection: 5 ug/l; primary contact recreation: 5 ug/l
- [2] Sources of water for drinking, culinary or food processing purposes
- aquatic life protection: 0.45 ug/l; primary contact recreation: 0.45 ug/l
- [3] Sources of water for drinking, culinary or food processing purposes
- aquatic life protection: 0.4 ug/l; primary contact recreation: 0.4 ug/l

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

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

FEDERAL AND STATE WATER STANDARDS

TCL INORGANICS

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

- [1] If both are present, the total of both concentrations may not exceed 500 ug/l.
- [2] For water with hardness greater than 75 ppm. Standard is 11 ug/l for water with hardness less than or equal to 75 ppm.
- [3] For water with hardness of 75 ppm. See 6 NYCRR 702 for determination of standard for other hardnesses.
- * Maximum Contaminant Level - "maximum permissible level of a contaminant in water which is delivered to the free flowing outlet of the ultimate user of a public water system."
- ** Secondary Maximum Contaminant Level - same definition as MCL except "not Federally enforceable but intended as guidelines for the States."
- *** Primary contact recreation and any other uses except as a source of water supply for drinking, culinary or food processing purposes.

FEDERAL AND STATE WATER STANDARDS

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

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

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

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

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

FEDERAL AND STATE STANDARDS AND GOALS

NOTES TO REGULATIONS

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

Applied to results of all water sample analyses.

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

Applied to results of drinking water sample analyses.

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

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

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

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

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

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

Applied to results of all water sample analyses.

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

Applied to results of soil sample analyses.

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

Applied to results of soil and sediment sample analyses.