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961005

ENGINEERING INVESTIGATIONS AT INACTIVE HAZARDOUS WASTE SITES

PRELIMINARY SITE ASSESSMENT

MAIN REPORT
VOLUME I

ETE Sanitation and Landfill
Gainesville Township

Site No. 961005
Wyoming County

Prepared for:

New York State
Department of
Environmental Conservation
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Division of Hazardous Waste Remediation
Michael J. O'Toole, Jr., P.E., Director

BY:

ENGINEERING-SCIENCE, INC.
LIVERPOOL, NEW YORK

FEBRUARY 1994

VOLUME 1 - MAIN REPORT

ETE SANITATION AND LANDFILL SITE
NYSDEC SITE NO. 961005
GAINESVILLE TOWNSHIP
WYOMING COUNTY, NEW YORK

PRELIMINARY SITE ASSESSMENT
WORK ASSIGNMENT NO. D002478-17
NEW YORK STATE SUPERFUND STANDBY CONTRACT

Prepared for

DIVISION OF HAZARDOUS WASTE REMEDIATION
NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION
50 WOLF ROAD
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FEBRUARY 1994

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NOTICE

This Preliminary Site Assessment report about the ETE Sanitation and Landfill Site (NYSDEC Site No. 961005), located in the Town of Gainesville, Wyoming County, New York, was prepared for the New York State Department of Environmental Conservation (NYSDEC) under a Superfund Standby Contract (No. D002478, Work Assignment No. 17). The purpose of this report is to provide information necessary for NYSDEC to reclassify the site according to the Classes 2, 3, and D described in Section 2 of this report.

To achieve the study objectives stated in this report, Engineering-Science, Inc. (ES) was required to base conclusions on the best information available during this investigation and within the limits prescribed by NYSDEC in the contract agreement.

No investigative method can completely eliminate the possibility of obtaining partially imprecise or incomplete information. Thus, ES cannot guarantee that the investigation completely defined the degree or extent of any contamination by hazardous or otherwise harmful substances described in the report or, if no such contamination was found, its absolute absence. Professional judgment was exercised in gathering and analyzing the information obtained, and ES is committed to the usual care, thoroughness, and competence of the engineering profession.

Conclusions in this report are based on record reviews, interviews, and limited sampling performed by ES personnel. The health-based regulatory standards discussed in this report may change in the future. Levels of environmental contamination that are "acceptable" by current standards may not be so in the future.

Consistent with the objectives of the PSA investigation, this report includes an assessment of the presence of hazardous waste as defined by Title 6, Part 371 of the New York Codes, Rules, and Regulations (6NYCRR, Part 371) and "significant threat" to public health and environment as defined by 6NYCRR, Part 375. As such, the report does not include an evaluation of the presence of hazardous wastes regulated under federal law, except when federal and New York State regulations are identical. In particular, the presence of hazardous waste having the characteristic of toxicity as determined by the Toxicity Characteristic Leaching Procedure (TCLP) under 40CFR, Part 261.24 is not formally evaluated in this report. The characteristic of toxicity is currently determined by the Extraction Procedure Toxicity (EP Tox) test under 6NYCRR, Part 371.

Information contained in this report may not be suitable for any other use without adaptation for the specific purpose intended. Any such reuse of or reliance on the information, assessments, or conclusions in this report without adaptation will be at the sole risk and liability of the party undertaking the reuse.

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SECTION 1

EXECUTIVE SUMMARY

1.1 BACKGROUND SUMMARY

The ETE Sanitation and Landfill Site (NYSDEC No. 961005) is an inactive landfill listed as a Class 2a site on the State Registry of Inactive Hazardous Waste Sites. This site is under investigation by the NYSDEC because of reported on-site disposal of leaded paint sludges, and alleged disposal of chlorinated solvents and plating wastes (NYSDEC, 1989).

The ETE Site is located in a rural agricultural area in the Town of Gainesville, Wyoming County, New York, approximately 2 miles west of Silver Springs and 1 mile north of the Village of Gainesville (Figure 1.1) (USGS, 1972a; USGS, 1972b). The site is approximately 20 acres in size and is bordered by a pond and Broughton Road to the south; a tributary, farm land, and Route 19 to the west; farm land to the north; and a seasonal tributary, undeveloped land, farm land, and Jordan Road to the east. The Town of Gainesville Highway Department Garage is located southeast of the fill area (Figure 1.2). Leachate discharges west and north, and drains to an on-site leachate collection pond. The leachate pond discharges to a tributary of Cotton Creek.

The ETE Sanitation and Landfill Site operated from 1972 to 1979 as a nonpermitted landfill that accepted municipal and industrial waste from six surrounding towns in Wyoming County. Industrial waste included paint sludge, plating wastes, and salt (URS, 1990).

Several site inspections conducted by the NYSDEC between 1987 and 1990 included sampling and analysis of on-site soils, surface water, and wastes, as well as tap water samples from residences in the vicinity of the site (URS, 1990). Results of these inspections are as follows:

- Cyanide was detected in the leachate sample at 0.01 milligrams per kilogram (mg/kg) and in the sediment sample at 1.6 mg/kg.
- A drum sample had concentrations of 1,1,1-trichloroethane, isophorone, phenol, and bis(2-chloroethyl)ether at 42,000 mg/kg, 8,142 mg/kg, 133.8 mg/kg, and 181.7 mg/kg respectively (URS, 1990).
- Two drums were labelled "Cholorothene-V6" (unknown, 1989).
- Chlorinated solvents were detected in soil samples at concentrations ranging from 1.0 to 2.8 micrograms per kilogram (ug/kg) (URS, 1990).
- Four drum samples failed an ignitability test, one drum contained lead in excess of the Extraction Procedure Toxicity testing (EP Tox) standard, and three drums had concentrations in exceedance of Toxicity Characteristic Leaching Procedure (TCLP) regulatory action levels, resulting in the wastes being classified as hazardous waste. TCLP exceedances included 1,2-dichloroethane, carbon tetrachloride, trichloroethene, and methyl ethyl ketone.
- VOCs detected in an inlet to the leachate pond included chloroethane at 9 ug/l, methylene chloride at 14 ug/l, acetone at 240 ug/l, 2-butanone at 470 ug/l, benzene

at 2 ug/l, 4-methyl-2-pentanone at 27 ug/l, toluene at 31 ug/l, chlorobenzene at 2 ug/l, ethylbenzene at 95 ug/l, and total xylenes at 330 ug/l.

- Analytical results for tap water samples from upgradient and downgradient sources had no organic compounds detected in the samples. A representative of the Wyoming County Health Department indicated that the department had no concern about the water (URS, 1990).

1.2 SITE INVESTIGATION SUMMARY

ES was directed by NYSDEC to conduct field studies and complete the PSA investigation for reclassification of the site. The site investigation was conducted in accordance with the Technical Work Plans provided by the NYSDEC and field modifications as directed by the NYSDEC. Field work was conducted between March 22 and May 11, 1993. The environmental sampling effort consisted of the installation of seven monitoring wells and the collection of (Table 1.1):

- one leachate sample,
- one sediment sample,
- three surface soil samples (including one composite),
- four composite subsurface soil samples, and
- seven groundwater samples.

All of the samples were analyzed for Target Compound List (TCL) organics, Target Analyte List (TAL) metals, and cyanide. The sediment sample and the three surface soil samples were also analyzed using the EP Tox testing method. Environmental sample analyses was conducted by Recra Environmental, Inc. (Recra) of Amherst, New York in accordance with NYSDEC Analytical Service Protocols (ASP) (December 1991) and the QAPP.

Preliminary assessment (PA) evaluation scoring was conducted using the USEPA PA-Score (version 2.1) program. The ETE Sanitation and Landfill Site had a score of 34, indicating that HRS scoring may be warranted.

1.3 PRESENCE OF HAZARDOUS WASTES

Title 6 of the New York Codes, Rules, and Regulations (6NYCRR), Part 371 establishes two categories of hazardous wastes: (1) listed hazardous wastes, and (2) characteristic hazardous wastes. Listed hazardous wastes are generated by certain industrial processes, or are judged to have an acute hazard or toxicity associated with exposure to them. Listed hazardous wastes are assigned USEPA hazardous waste numbers with "F", "K", "P", "U", or "B" prefixes.

Characteristic hazardous wastes are identified using analytical methods specified in 6NYCRR, Part 371, and are assigned "D" prefixes. The hazardous waste characteristics include toxicity, reactivity, corrosivity, and ignitability. The EP Tox method is used in New York State to identify hazardous wastes having the toxicity characteristic.

Many of the analytes detected in the field samples collected during the PSA investigation are listed potential hazardous wastes (Sections 4.6.1 to 4.6.5). However, the

presence of these listed compounds on-site can not be used to establish the presence of hazardous waste at the site because: (1) they cannot be directly attributed to documented specific or non-specific sources as required by 6NYCRR, Part 371.4(b) and (c); or (2) they cannot be directly attributed to the disposal of a "commercial chemical product, manufacturing chemical intermediates, or off-specification commercial chemical products" as required by 6NYCRR, Part 371.4(d), based on limited information obtained to date. The determination of toxicity by the TCLP Method is not an approved method under 6NYCRR 371. However, the EP Tox results for lead and the ignitability results for drum wastes provide the documentation necessary to show the presence of hazardous wastes as defined by 6NYCRR, Part 371.

Preliminary assessment (PA) evaluation scoring was conducted using the USEPA PA-Score (version 2.1) program. The ETE Sanitation and Landfill Site had a score of 34, indicating that HRS scoring may be warranted.

1.4 PRESENCE OF SIGNIFICANT THREAT

The presence of a "significant threat" to public health or the environment, as defined by 6NYCRR, Part 375, may be established by analytical data showing that hazardous substances: (1) have been released to environmental media from hazardous waste disposed at the site, and (2) are present in concentrations exceeding accepted health or environmental standards or guidance values. The criteria used to establish releases is discussed in the introduction to Section 4.6.

Although the on-site disposal of hazardous waste has been determined, a significant threat resulting from the hazardous waste has not been identified. Explosive and/or fire concerns have been determined not to exist (URS, 1990). Although components of the ignitable wastes were never determined to allow that correlation to be made.

The groundwater exceedance for lead in MW-25 appears to be insufficient for showing significant threat; the concentration only slightly exceeded the standard and it is questionable whether MW-2 accurately reflects site impacts (MW-2 was originally designated an upgradient well).

A significant threat attributable to hazardous waste disposed on-site, as defined by 6NYCRR 371, cannot be established. However, the exceedance of groundwater standards by chlorinated organics indicates that a significant threat could be shown to exist if the components of the ignitable wastes correlated with the exceedances of groundwater standards.

Additional concern may also be warranted for copper, iron, zinc, and cyanide Class C surface water quality standard exceedances (leachate samples).

1.5 RECOMMENDATIONS

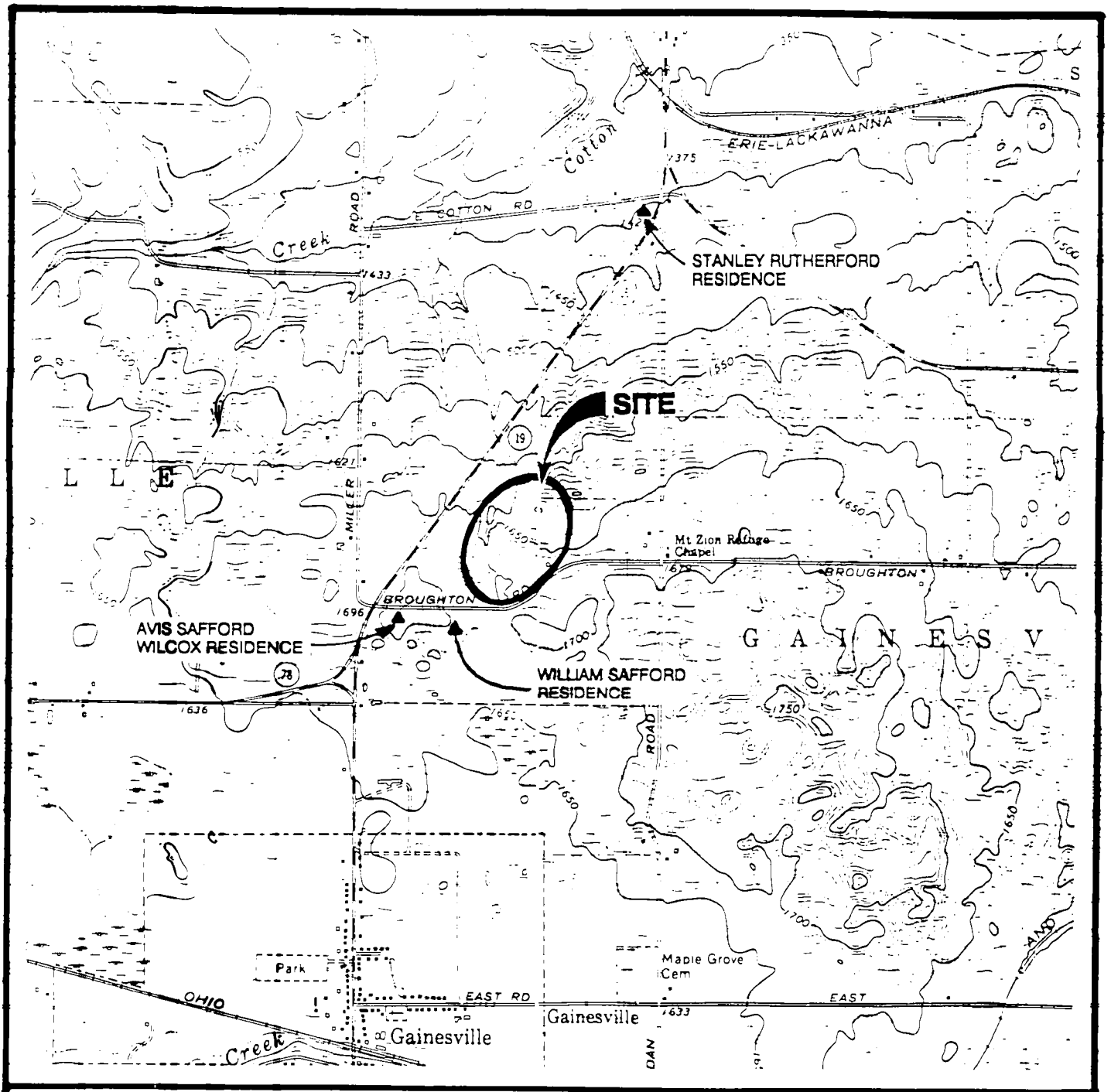
Analytical data collected during this investigation indicate that hazardous wastes have been disposed on-site. Analytical data also indicate that the hazardous waste disposed on site does not present a significant threat to public health or environment. These two factors alone would qualify the site as a Class 3 site. However, the analytical data (exceedance of groundwater standards by chlorinated organics) also indicate that on-site hazardous substances are resulting in conditions that would warrant the determination of significant threat if the source could be determined to be a hazardous waste, as defined by

6NYCRR 371. Although the results of this PSA investigation indicate a reclassification to a Class 2 site is warranted, the required documentation obtained to date is insufficient to completely justify this action.

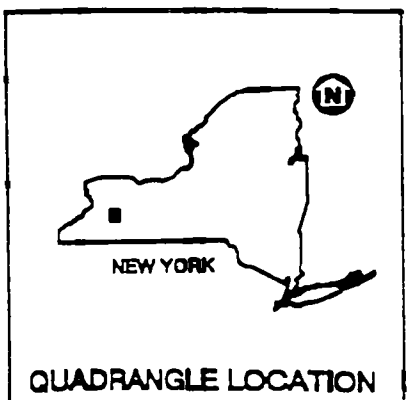
ES recommends conducting a limited drum sampling effort to identify ignitable wastes and to identify the components of the ignitable wastes in an attempt to establish a correlation between hazardous waste disposed on-site and chlorinated organic groundwater exceedances, thus establishing a significant threat to public health or environment from hazardous wastes.

The drum sampling effort should include removal, overpacking, sampling, and disposal of partially-buried drums. Additional sampling of wells may also be warranted to assist in determination of significant threat, if any. Laboratory analysis should include, at a minimum, analysis for characteristics of ignitability, characteristics of toxicity (EP Tox metals) (primarily to address the potential for lead), TCL VOCs (for determination of significant threat), and TCLP (for drum disposal).

FIGURE 1.1



SOURCE: U.S.G.S. 7.5 MINUTE SERIES TOPOGRAPHIC MAP; WARSAW, NY 1972, CASTILE, NY 1972.



LONGITUDE: 78°07'30"
LATITUDE: 42°38'58"

SCALE
0 2000 4000 FT.
2000 FT.

ENGINEERING - SCIENCE

SITE LOCATION MAP
ETE SANITATION
GAINESVILLE, NEW YORK

LEGEND

- APPROXIMATE LANDFILL BOUNDARY
- DRUM LOCATIONS
- DRAINAGE/TRIBUTARY
- MW-1D — MONITORING WELL
- SS-2 — SOIL SAMPLE
- LC-1 — LECHATE SAMPLE
- SED-1 — SEDIMENT SAMPLE

NOTE: TRIBUTARIES AND DRUM LOCATIONS ARE APPROXIMATE.

200' 100' 0 200'

Approximate Scale in Feet

CONTOUR INTERVAL: 2'

MAPPING COMPILED BY STEREOPHOTOGRAMMETRIC METHODS FROM 1"=400' SCALE AERIAL PHOTOGRAPHY FLOWN 05/10/93.

MAPPING COMPILED WITHOUT BENEFIT OF A FIELD EDIT.

AREAS OUTLINED AND NOTED INDICATE AREAS OF DOUBTFUL ACCURACY.

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
PRELIMINARY SITE ASSESSMENT

SITE PLAN
ETE SANITATION AND LANDFILL SITE

ENGINEERING-SCIENCE
DESIGN • RESEARCH • PLANNING
290 ELWOOD DAVIS ROAD • LIVERPOOL, NEW YORK 13088 • 315/451-9560
OFFICES IN PRINCIPAL CITIES
ES

REVISED: 2/2/94
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SECTION 2

INTRODUCTION

2.1 PURPOSE

This report presents the results of the Preliminary Site Assessment (PSA) of the ETE Sanitation and Landfill Site (NYSDEC Site No. 961005), located in the Town of Gainesville, Wyoming County, New York. The field investigations and report preparation were conducted by Engineering-Science, Inc. (ES) under Work Assignment No. D002478-17 of a Superfund Standby Contract between the New York State Department of Environmental Conservation (NYSDEC) and ES. The ETE Sanitation and Landfill Site is an inactive landfill listed as a Class 2a site on the state Registry of Inactive Hazardous Waste Sites. The site is under investigation because of on-site disposal of leaded paint sludge, and alleged disposal of chlorinated solvents and plating wastes. Results from the Task 1 investigation, conducted by URS Consultants, Inc., concluded that insufficient information was available for site reclassification. ES was directed by NYSDEC to conduct field studies and complete the PSA investigation process to allow reclassification of the site.

The primary purpose of the PSA investigation was to assign one of the following three site classifications provided by Article 27, Title 13 of the Environmental Conservation Law to the site:

- Class 2 - Significant threat to public health or environment - action required;
- Class 3 - Does not present a significant threat to public health or environment - action may be deferred; or
- Class D - Site delisted from Registry of Inactive Hazardous Waste Sites.

Classification is based on a determination of:

1. The documented presence of hazardous waste, as defined under Title 6, Part 371 of the New York Code of Rules and Regulations (NYCRR); and
2. The threat posed by hazardous waste on-site to the public health and environment.

In the event that insufficient data are developed for the determination of the presence or threat posed by hazardous waste at the sites, recommendations for further work will be made to obtain sufficient data.

2.2 REPORT ORGANIZATION

This report consists of six sections and five appendices. Section 1 provides an executive summary of the results of the investigation, including recommendations for further work at the sites if warranted. Section 2 presents an introduction to the PSA investigation and the PSA program at the NYSDEC. Section 3 presents a description of the scope of work for the PSA investigation. Section 4 presents an assessment of the data gathered during the investigation. Section 5 presents recommendations for reclassification

of the site or further work at the site. Section 6 presents a list of cited references. Appendix A contains U.S. Environmental Protection Agency (USEPA) Form 2070-13, completed with the data gathered during this investigation.

Appendix B contains the results of USEPA Preliminary Scoring (PA Score). Appendix C contains boring logs and well construction data. Appendix D contains laboratory analytical data in data base format. Appendix E contains selected references.

2.2 PRELIMINARY SITE ASSESSMENT INVESTIGATION

PSA investigations are generally comprised of six tasks as follows:

Task 1 - Records Search, Site Inspection, and Assessment;

Task 2 - Site Work Plan Development;

Task 3 - Surface Field Investigation;

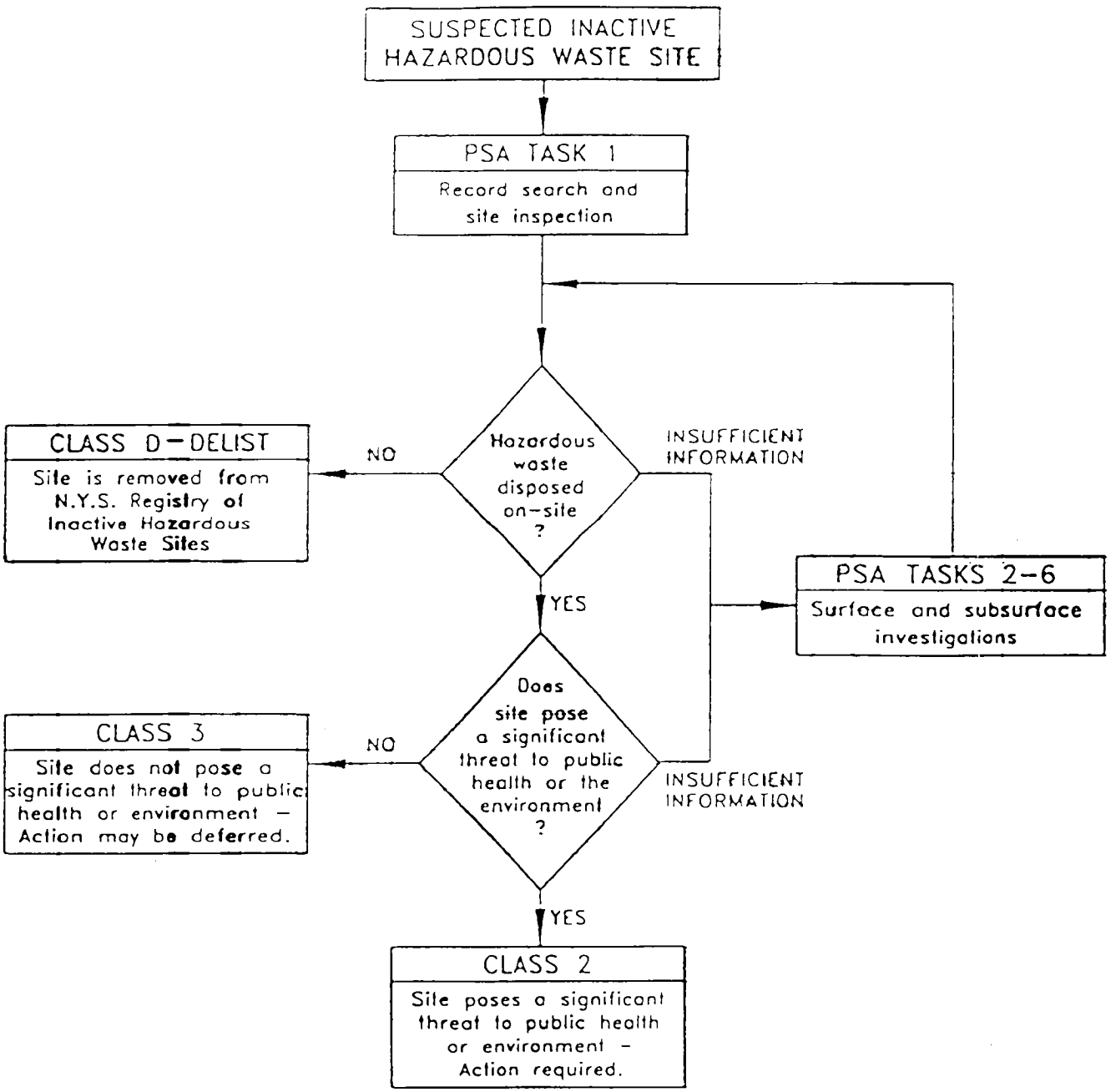
Task 4 - Subsurface Field Investigation;

Task 5 - Draft PSA Report; and

Task 6 - Revised PSA Report.

PSA investigations are intended to be completed with the minimum number of tasks required to generate sufficient information for classification under the Environmental Conservation Law. Figure 2.1 provides a decision tree used for classification of sites.

SITE CLASSIFICATION DECISION TREE



SECTION 3

SCOPE OF WORK

3.1 INTRODUCTION

The scope of work for the PSA investigation (Tasks 2 through 6) at the ETE Sanitation and Landfill Site consisted of developing a Project Management Plan for the entire work assignment (Task 2); initial environmental sampling, including sediment, leachate, and shallow soil samples (Task 3); subsurface environmental sampling and grain-size analysis, including installation of monitoring wells, subsurface soil sampling, and groundwater sampling (Task 4); site assessment and preparing a draft report (Task 5), and completing a final report (Task 6). The record search and initial site inspection (Task 1) were conducted by others. Task 2 was presented in the Project Management Plan dated February 1993. Tasks 3 and 4 were conducted in accordance with the Technical Work Plans provided by the NYSDEC (dated December 8, 1992) and later modifications as directed by the NYSDEC. The site specific-tasks are described below and summarized in Table 3.1.

Environmental sampling was conducted in accordance with the Technical Work Plans provided by NYSDEC and the Quality Assurance Project Plan (QAPP) dated November 1992. Environmental sample analyses was conducted by Recra Environmental, Inc. (Recra) of Amherst, New York in accordance with the NYSDEC Analytical Service Protocols (ASP) (December 1991) and the QAPP. Recra is one of three laboratory Standby subcontractors for ES. As directed by the NYSDEC, data validation was not conducted on analytical results for the ETE Sanitation and Landfill Site. However, ES did conduct sample tracking and contract compliance screening on all samples. Grain-size analyses were performed by Huntingdon Empire Soils Investigation, Inc., Groton, New York, using ASTM method D422-63 (1990).

Air monitoring was conducted using a Photoionization Detector (PID) and Draeger Tubes as warranted and/or as called for in the Health and Safety Plan. In general, air in the breathing zone was monitored during drilling and sampling activities. Soil samples were also screened, as was the headspace over each monitoring well, as a means of determining the presence of volatile organic compounds.

3.2 INITIAL ENVIRONMENTAL SAMPLING

3.2.1 Sediment Samples

One sediment sample (SD001) was collected from the inlet at the southern end of the leachate collection pond on May 11, 1993 (Figure 3.1 and Table 3.2). The sediment sample was collected by ES using a stainless steel spoon and bowl. The leachate collection pond is located at the base of the northwest corner of the landfill and receives surface water and leachate runoff from the northern and western portions of the landfill. Sediments were described as rust brown in color.

The sediment sample was analyzed for Target Compound List (TCL) volatile organic compounds (VOCs), TCL semi-volatile organic compounds (SVOCs), TCL pesticides, TCL polychlorinated biphenyls (PCBs), Target Analyte List (TAL) metals, cyanide and

for hazardous waste characteristics by EP Tox testing. No matrix spike, matrix spike duplicate (MS/MSD) or field duplicate samples were collected for the sediment sample location.

3.2.2 Leachate Samples

One leachate sample (LC001) was collected from the inlet at the southern end of the leachate collection pond on May 11, 1993 (Figure 3.1 and Table 3.2). The leachate sample was collected by ES directly into the sample bottles. The leachate sample was analyzed for TCL VOCs, SVOCs, pesticides, PCBs; TAL metals; and cyanide. No MS/MSD or field duplicate samples were collected for the leachate sample location.

3.2.3 Surficial Soil Samples

Three surficial soil samples were collected in the vicinity of crushed drums, partially buried intact drums, and/or from stained or otherwise suspect soils on May 10, 1993 (Figure 3.1 and Table 3.2). Samples were collected by ES using a stainless steel spoon and bowl. Sample SS001 was collected from a stained former seep area at the southern end of the landfill, adjacent to metal debris. Sample SS002 was a composite sample of soils from the vicinity of where crushed drums are stored in the central portion of the landfill. SS003 was collected along the northern perimeter of the landfill where partially buried drums were observed in the slope. Duplicate sample SS004 was collected from sample location SS001.

All samples, except SS004, were analyzed for TCL organics, TAL metals, and cyanide. Duplicate sample SS004 was analyzed for TCL organics only. Samples SS001/SS004 and SS003 were analyzed for hazardous waste characteristics by EP Tox. MS and MSD samples were collected from sample location SS001.

3.3 SUBSURFACE ENVIRONMENTAL SAMPLING

3.3.1 Monitoring Wells

Seven monitoring wells were installed in accordance with the Technical Work Plans and as directed by the NYSDEC field personnel between March 24, 1993 and April 8, 1993 (Figure 3.1). Six of the monitoring wells were installed as well pairs (MW-1S/D, MW-2S/D, and MW-3S/D) and one monitoring well was installed as a single well (MW-4). Shallow wells ranged in depth from 15 to 17.5 feet below ground surface (bgs). Deep wells ranged from 42 to 47.5 feet bgs. Monitoring well installation was conducted by SJB Services, Inc. of Buffalo, New York, with oversight from ES and the NYSDEC.

The initial boring for the upgradient shallow well, MW-2S, was installed east of the on-site pond, as directed by the NYSDEC. However, due to objections by the adjacent property owner, the MW-2S/2D well pair was relocated to the west side of the pond. The initial boring for MW-2S was redesignated BW-2SA and abandoned using portland cement and granular bentonite.

The initial boring for MW-1D was drilled to approximately 84 feet; however abandonment was required due to collapse of the boring during installation of the PVC riser. The initial boring for MW-1D was redesignated B-1D, and abandoned using portland cement and bentonite. The MW-1D/1S well pair was relocated approximately 30 feet further east.

The boring for monitoring well MW-3D was drilled to 78 feet, but was backfilled to 42 feet, after subsurface soil sample collection, to ensure a consistent depth with the other deep monitoring wells.

Bedrock wells were not installed as originally planned because bedrock was deeper than anticipated during work plan development. Shallow and deep wells were installed in the overburden, as directed by the NYSDEC, to determine vertical flow potential and to determine the extent of shallow and deep contamination, if any.

The monitoring wells were drilled and constructed in accordance with the Technical Work Plans and the QAPP. All wells are overburden monitoring wells constructed of 2-inch inner diameter threaded PVC flush-joint casing with 0.010-inch slot screen. The annulus around the outside of the screen was backfilled with clean silica sand with the sand pack extended to at least 2 feet above the top of the well screen. Bentonite slurry was placed above the sand pack to form a minimum 2-foot thick seal. Vented caps and 4-inch diameter, steel casing with hinged locking caps were installed over the monitoring wells. The protective casings extend at least 2 feet above the ground surface and were cemented in place. A summary of well specifications is presented in Table 3.3. Boring logs and geotechnical analyses are included in Appendix C. Chemical analytical results are discussed in Section 4 and analytical data sheets are presented in Appendix D.

Well development was conducted by ES on April 20 and April 28, using dedicated bailers and a Waterra Inertial Pump system (tubing was decontaminated between wells). Wells were developed by the removal of at least three well volumes. Well development continued until a turbidity reading of less than 50 NTU was achieved or until consistent pH, temperature, and conductivity were achieved, up to a maximum of 4 hours.

3.3.2 Subsurface Soil Samples and Grain-Size Analysis

Subsurface soil was sampled with split spoon samplers. Split spoons were collected continuously throughout the depth of each well. One sample from each of the three well pairs (SSMW1S, SSMW3D, and SSMW2) and one from MW-4 (SSMW4) were selected for TCL organics, TAL metals, and cyanide analyses based on visual observations and PID readings (Table 3.4). Subsurface soil sample identifications consist of the monitoring well identification with a "SS" prefix. Subsurface soil sample intervals were:

- SSMW1S: 4-10 feet bgs;
- SSMW2S: 2-22 feet bgs (VOC sample was collected from 6 to 22 feet bgs to accommodate volume requirements for MS/MSD samples);
- SSMW3D: 71-78 feet bgs; and
- SSMW4: 2-8 feet bgs.

VOC samples were collected as grab samples from selected subintervals within the intervals listed above. Samples for remaining analyses consisted of composited soils from these intervals.

One sample from within the 10-foot screened interval of each well was selected from the split spoon samples for grain-size characterization. Grain-size sample intervals were:

- SSMW-1S: 10-14 feet bgs;
- SSMW-2S: 14-18 feet bgs;

- SSMW-3S: 8-10 feet bgs; and
- SSMW-4: 10-14 feet bgs.

3.3.3 Groundwater Samples

Groundwater samples and water level data were collected from each of the seven wells on May 10 and 11, 1993. The groundwater samples were collected using dedicated, disposable polyethylene bailers and prolypropylene lines. Groundwater samples were collected in accordance with the QAPP and were analyzed for TCL organics, TAL metals, and cyanide. A duplicate was collected from MW01S (GW005); this sample was not analyzed for metals or cyanide. MS/MSD samples were collected from MW01S. Groundwater was noted to be light brown to dirty in appearance. With the exception of MW-2D, turbidity readings for the groundwater were consistently above 50 NTUs, and above 200 NTU for monitoring wells MW-1S, MW-2S, MW-3D, MW-3S, and MW-4 during well development. The wells with turbidity readings consistently above 50 NTU were developed until steady pH, conductivity, and temperature readings were achieved.

3.3.4 Survey

Surveying and mapping was conducted in accordance with the Technical Work Plans. The control survey was performed by a New York State-licensed surveyor, Modi Associates. Aerial photography and AutoCAD mapping was conducted by TVGA of Lansing, Pennsylvania, under subcontract to Modi Associates.

3.3.5 Data Validation

As requested by NYSDEC, data validation was conducted only on analytical results from the first sample delivery group (SDG) for the six sites under this work assignment. Data validation was conducted by ES on subsurface soil samples from the Warsaw Village Landfill Site (SDG MW1), the first set of samples submitted to the laboratory from this set of site investigations. Full data packages were collected for all SDGs for the ETE Sanitation and Landfill Site; however, "validation" of analytical results was limited to sample tracking and contract compliance screening.

Data validation was performed on SDG MW1 from the Warsaw Village Landfill Site by ES following guidelines in the most recent USEPA documents adapted to the QA/QC criteria in the NYSDEC ASP and in accordance with the QAPP. Data validation was performed by trained and experienced data validators who meet the NYSDEC approval criteria.

Use of non-validated data is assumed to be adequate, based on satisfactory results from validation of the Warsaw Village Landfill SDG MW1 because all analyses were conducted by the same laboratory, RECRA, within a limited time-frame (approximately 73-days). It is also assumed that within this period all quality assurance/quality control protocols were followed in a similar manner and with similar results as for SDG MW1.

3.3.6 Slug Test

Rising and falling head in-situ hydraulic conductivity tests were budgeted as optional tasks, but, as directed by the NYSDEC, were not conducted at the ETE Sanitation and Landfill Site.

3.4 REPORT PREPARATION

3.4.1 Site Assessment

The site assessment subtask included data evaluation and the collection of background data as necessary to complete report documentation.

3.4.2 Report Preparation

This report was prepared to present a summary of background information, results of the field investigation, and recommendations for site reclassification. Preliminary assessment (PA) evaluation scoring was conducted using the USEPA PA-Score (version 2.1) program. PA-Score performs PA scoring calculations from raw data to generate PA score sheets, documentation, and EPA's Potential Hazardous Waste Site Preliminary Assessment form. A score of 28.5 or greater indicates the site is potentially eligible for National Priority List (NPL) nomination, subject to Hazardous Ranking System (HRS) scoring.

TABLE 3.1

SUMMARY OF PSA TASKS
ETE SANITATION AND LANDFILL SITE
GAINESVILLE, NEW YORK

Task	Description of Task
Initial Environmental Sampling	
Sediment Sample	One sediment sample was collected from the leachate collection pond inlet and analyzed for TCL organics, TAL metals, cyanide and for hazardous waste characteristics by EP Toxicity testing procedures.
Leachate Sample	One leachate sample was collected from the leachate collection pond inlet and analyzed for TCL organics, TAL metals, and cyanide.
Shallow Soil Samples	Three shallow soil samples were collected from stained or otherwise suspect soils. All three samples were analyzed for TCL organic compounds, TAL metals, and cyanide. Samples SS001 and SS003 were also analyzed for hazardous waste characteristics by EP Tox testing procedures.

TABLE 3.1 (CONTINUED)

SUMMARY OF PSA TASKS
ETE SANITATION AND LANDFILL SITE
GAINESVILLE, NEW YORK

Task	Description of Task
Subsurface Environmental Sampling	
Monitoring Well Installation	Three monitoring well pairs and a single well were installed. All wells were installed in unconsolidated sand and silt (overburden). Shallow wells ranged in depth from 15 to 17.5 feet bgs. Deep wells ranged from 42 to 47.5 feet bgs. Wells were constructed of 2-inch ID PVC casing with 10 feet of 0.010-inch slotted well screen.
Subsurface Soil Samples	Split spoon samples were collected continuously from the ground surface to the bottom of the monitoring well borings. Four subsurface soil samples were collected, one each from MW-1S, MW-2S, MW-3D, and MW-4, based on PID readings and field observations. The samples were analyzed for TCL organic compounds, TAL metals, and cyanide. One sample was also collected from the screened portion of each of the shallow wells for grain-size analysis.
Well Development	Well development was conducted using dedicated bailers and a Waterra Inertial Pump system.

TABLE 3.1 (CONT.)

SUMMARY OF PSA TASKS
ETE SANITATION AND LANDFILL SITE
GAINESVILLE, NEW YORK

Task	Description of Task
Subsurface Environmental Sampling (Continued)	
Groundwater Samples	Seven groundwater samples were collected and analyzed for TCL organic compounds, TAL metals, and cyanide.
Surveying	Monitoring well elevations and locations, and sample locations were surveyed relative to fixed datum. The surveying task included aerial photography and AutoCAD mapping.
Data Validation	Data validation was conducted only on analytical results on SDG MW1 from the Warsaw Village Landfill Site, the first sample set submitted to the laboratory. Review of analytical results from the ETE Site was limited to sample tracking and contract compliance screening.
Report Preparation	
Site Assessment	A preliminary site contamination assessment was conducted prior to report preparation for evaluation of background data and data from the field investigation.
Report Preparation	A report was prepared containing a summary of background information, field data, and a site assessment. PA scoring was conducted using the USEPA PA-Score program (version 2.1)

TABLE 3.2

SAMPLE SUMMARY
ETE SANITATION AND LANDFILL
GAINESVILLE, NEW YORK

SAMPLE CATEGORY	SAMPLE ID	SAMPLE DEPTH (FT)	SAMPLE DATE	ANALYSES *	FIELD CREW	MS/MSD (Y/--)	DESCRIPTION OF LOCATION/SAMPLE
SEDIMENT	SD001	0 – 0.5	05/11/93	1 – 7	KAP, DRD		Leachate collection pond inlet.
LEACHATE	LC001		05/11/93	1 – 6	KAP, DRD		Leachate collection pond inlet.
SURFACE SOIL	SS001	0 – 0.5	05/10/93	1 – 7	KAP, DRD	Y	Seep area south end of landfill adjacent to metal debris.
SURFACE SOIL	SS004	0 – 0.5	05/10/93	1 – 4, 7	KAP, DRD		Duplicate for SS001
SURFACE SOIL	SS002	0 – 0.5	05/10/93	1 – 6	KAP, DRD		Composite from former overpack drum storage area.
SURFACE SOIL	SS003	0 – 0.5	05/10/93	1 – 7	KAP, DRD		North end of landfill along bank where drums are visible.
SUB-SURFACE SOIL	SSMW4	2–8	03/24/93	1 – 6	NAS		Northern boundary of landfill.
SUB-SURFACE SOIL	SSMW1S	4–10	03/24/93	1 – 6	NAS		Southwest corner of landfill.
SUB-SURFACE SOIL	SSMW3D	71–78	04/06/93	1 – 6	NAS		Northeast corner of landfill.
SUB-SURFACE SOIL	SSB3	71–78	04/06/93	1 – 4	NAS		Duplicate for SSMW3D.
SUB-SURFACE SOIL	SSMW2S SSMW2S	6–22 2–22	04/08/93 04/08/93	1 2 – 6	NAS NAS	Y Y	Upgradient well, west of pond.
DRILL WATER	DR-1		04/08/93	1 – 6	NAS		

* ANALYSES:
1. TCL VOCs
2. TCL SVOCs
3. TCL PCBs
4. TCL PESTICIDES
5. TAL METALS
6. CYANIDE
7. EP Tox

TABLE 3.2 (CONT.)

SAMPLE SUMMARY
ETE SANITATION AND LANDFILL
GAINESVILLE, NEW YORK

SAMPLE CATEGORY	SAMPLE ID	SAMPLE DEPTH (FT)	SAMPLE DATE	ANALYSES *	FIELD CREW	MS/MSD (Y/--)	DESCRIPTION OF LOCATION/SAMPLE
GROUNDWATER	GW01S		05/10/93	1 - 6	KAP, DRD	Y	Southwest corner of landfill.
GROUNDWATER	GW005		05/10/93	1 - 4	KAP, DRD		Duplicate for GW01S.
GROUNDWATER	GW01D		05/10/93	1 - 6	KAP, DRD		Southwest corner of landfill.
GROUNDWATER	GW03D		05/11/93	1 - 6	KAP, DRD		Northeast corner of landfill.
GROUNDWATER	GW03S		05/11/93	1 - 6	KAP, DRD		Northeast corner of landfill.
GROUNDWATER	GW004		05/11/93	1 - 6	KAP, DRD		Northern boundary of landfill.
GROUNDWATER	GW02S		05/11/93	1 - 6	KAP, DRD	Y	Upgradient well, southwest of pond.
GROUNDWATER	GW02D		05/11/93	1 - 6	KAP, DRD		Upgradient well, southwest of pond.
GROUNDWATER	TRIP BLANK		05/10/93	1	KAP, DRD		

* ANALYSES:
1. TCL VOCs
2. TCL SVOCs
3. TCL PCBs
4. TCL PESTICIDES
5. TAL METALS
6. CYANIDE

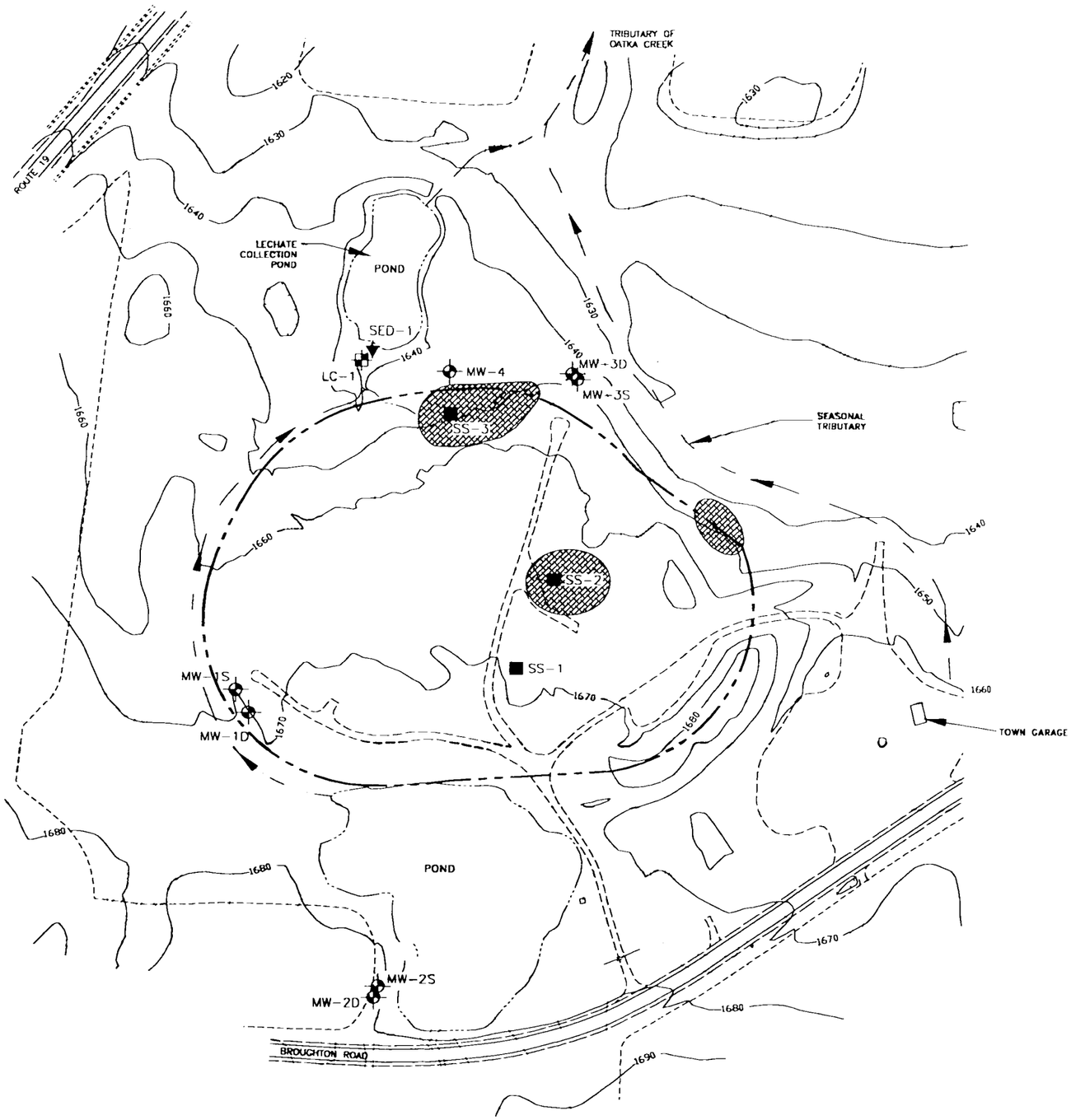
TABLE 3.3
MONITORING WELL LOCATIONS AND SPECIFICATIONS
ETE SANITATION AND LANDFILL SITE
GAINESVILLE, NEW YORK

WELL/ BORING NUMBER	UNIT SCREENED	LOCATION	TOP OF SCREEN		BOTTOM OF SCREEN	
			DEPTH (FEET) *	ELEVATION (FEET) **	DEPTH (FEET) *	ELEVATION (FEET) **
MW – 1 S MW – 1 D	OVERBURDEN	SOUTHWEST OF MAIN FILL AREA	7.0 32.5	1662.7 1637.1	17.0 42.5	1652.7 1627.1
MW – 2 S MW – 2 D	OVERBURDEN	SOUTH OF MAIN FILL AREA NEAR MAIN ROAD	7.5 37.5	1674.4 1644.5	17.5 47.5	1664.4 1634.5
MW – 3 S MW – 3 D	OVERBURDEN	TOE OF FILL NORTH OF MAIN FILL AREA	7.5 32.0	1638.6 1614.1	17.5 42.0	1628.6 1604.1
MW – 4	OVERBURDEN	NORTH OF MAIN FILL AREA BETWEEN TOE AND LEACH POND	5	1638.8	15	1628.8

NOTE: REFER TO FIGURES 4.3 AND 4.4 FOR CROSS SECTIONS AND LITHOLOGIC SUMMARY
* DEPTHS IN FEET BELOW GROUND SURFACE
** ELEVATIONS IN FEET ABOVE MEAN SEA LEVEL

TABLE 3.4
SPLIT SPOON SAMPLE LOCATIONS
ETE SANITATION AND LANDFILL SITE
GAINESVILLE, NEW YORK

SAMPLE ID NUMBER	WELL/ BORING NUMBER	MATRIX	SAMPLE DEPTH (FEET)	LOCATION
SSMW1S	MW – 1 S	SOIL	4 – 10	SOUTHWEST OF MAIN FILL AREA
SSMW2S	MW – 2S	SOIL	6 – 22 FOR VOCs 2 – 22 FOR OTHER	SOUTH OF MAIN FILL AREA NEAR MAIN ROAD
SSMW3D / SSB3	MW – 3 D	SOIL	71 – 78	TOE OF FILL NORTH OF MAIN FILL AREA
SSMW4	MW – 4	SOIL	2 – 8	NORTH OF MAIN FILL BETWEEN TOE AND LEACH POND



LEGEND

- APPROXIMATE LANDFILL BOUNDARY
- DRUM LOCATIONS
- DRAINAGE/TRIBUTARY
- MW-1D — MONITORING WELL
- SS-2 — SOIL SAMPLE
- LC-1 — LECHATE SAMPLE
- SED-1 — SEDIMENT SAMPLE

NOTE: TRIBUTARIES AND DRUM LOCATIONS ARE APPROXIMATE.

200' 100' 0 200'

Approximate Scale in Feet

CONTOUR INTERVAL: 10'

MAPPING COMPILED BY STEREOPHOTOGRAMMETRIC METHODS FROM 1"=400' SCALE AERIAL PHOTOGRAPHY FLOWN 05/10/93.

MAPPING COMPILED WITHOUT BENEFIT OF A FIELD EDIT.

AREAS OUTLINED AND NOTED INDICATE AREAS OF DOUBTFUL ACCURACY.

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
PRELIMINARY SITE ASSESSMENT

SAMPLE LOCATION MAP
ETE SANITATION AND LANDFILL SITE

ENGINEERING-SCIENCE
DESIGN • RESEARCH • PLANNING
290 ELWOOD DAVIS ROAD • LIVERPOOL, NEW YORK 13088 • 315/451-9560
OFFICES IN PRINCIPAL CITIES

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SECTION 4

SITE ASSESSMENT

4.1 SITE DESCRIPTION

The ETE Sanitation and Landfill Site (NYSDEC No. 961005) is an inactive landfill listed as a Class 2a site on the State Registry of Inactive Hazardous Waste Sites. This site is under investigation by the NYSDEC because of reported on-site disposal of leaded paint sludges, and alleged disposal of chlorinated solvents and plating wastes (NYSDEC, 1989; URS, 1990). The soil sample had concentrations of 1,1,1-trichloroethane, carbon tetrachloride, 1,2-dichloropropene, trichloroethene, tetrachloroethene, and 1,1,2,2-tetrachloroethane detected at 2,464 mg/kg, 2,922 mg/kg, 4,125 mg/kg, 3123 mg/kg, 1,562 mg/kg, and 2,132 mg/kg respectively.

The ETE Site is located in a rural agricultural area in the Town of Gainesville, Wyoming County, New York, approximately 2 miles west of Silver Springs and 1 mile north of the Village of Gainesville (Figure 4.1) (USGS, 1972a; USGS, 1972b).

The site is approximately 20 acres in size and is bordered by undeveloped land, a pond, and Broughton Road to the south; a drainage ditch extending from the south pond to the leachate collection pond, farm land and Route 19 to the west; undeveloped land and farm land to the north; and a seasonal tributary, farm land, and Jordan Road to the east. A leachate collection pond is located at the base of the north slope of the landfill. The Town of Gainesville Highway Department Garage is located southeast of the fill area (Figure 4.2).

The landfill portion of the property is elevated relative to the surrounding land. The site is vegetated with grasses and trees; however, debris protrudes through the ground cover in portions of the landfill. Three drum areas were identified during the 1993 PSA investigation, including a pile of crushed drums covered with plastic in the center of the landfill, and half buried drums along the east and north slopes of the landfill. One of the drums along the east slope of the landfill had a partial label indicating the contents were a type of lacquer.

Leachate seeps discharging to the leachate collection pond were noted along the north and west slopes of the landfill. The ground surface in the vicinity of the leachate collection pond is void of vegetation, with stressed vegetation further away. A small, former leachate seep was also noted in the southern portion of the landfill.

Vehicular access is restricted by gates at the entrance from Broughton Road and from the Gainesville Highway Department property, but the remainder of the property is not fenced.

4.2 SITE HISTORY

The ETE Sanitation and Landfill Site was operated by ETE Corporation from 1972 to 1979 (URS, 1990). The ETE Site was a nonpermitted, private landfill that accepted municipal and industrial waste from six surrounding towns in Wyoming County. Industrial waste included leaded paint sludge, salt, and possibly plating wastes. Waste solvent drums have been observed on-site. The property was owned by ETE Corporation

which declared bankruptcy in 1979 after a suit was brought against the corporation for defying a New York State Supreme Court Order to cease any and all landfill operations (URS, 1990). Refuse Unlimited, Inc. was named as the successor in interest to ETE Sanitation Landfill, Inc. (Wyoming County Clerk's office Liber 554 Page 222). Tax records indicate the site is currently owned by ETE Corporation, with a Donald Iwanicki named as Trustee. Documented closure of the landfill has not been identified to date.

The landfill was in violation of NYSDEC regulations for sanitary landfills for the entire time of its operation (URS, 1990). Violations cited by NYSDEC included refuse burned on-site; refuse not spread, compacted, and covered; refuse protruding through cover; insufficient grading; uncontrolled release of leachate; and blowing paper (URS, 1990; NYSDEC, 1977).

Almor Corporation of Warsaw, New York, disposed approximately 150 tons of leaded paint sludge on-site (D008) (Almor, 1984). Plating wastes from Mallory Timers in Warsaw, New York may also have been disposed on-site (URS, 1990). Additional industrial waste included halite (table salt) and possibly other salts produced by Morton Salt. An estimated 4 to 5 truckloads of salt were disposed per week for an undetermined length of time (URS, 1990).

Several site inspections conducted by the NYSDEC between 1987 and 1990 included sampling and analysis of on-site soils, surface water, and wastes, as well as tap water samples from residences in the vicinity of the site (URS, 1990). These inspections included:

- March 1987 -- Samples were collected from the leachate pond and leachate pond sludge (NYSDEC, 1987). These samples were analyzed for inorganics (certain metals and cyanide) by Cambridge Analytical Associates; only cyanide was detected (URS, 1990). Cyanide was detected in the leachate sample at 0.01 milligrams per kilogram (mg/kg) and in the sediment sample at 1.6 mg/kg.
- September 2, 1987 -- NYSDEC sampled a "thick, black-red oily substance" from one drum (sample number 960801-02) and soil around a pile of leaking drums (sample number 96801-03) (NYSDEC, 1987). Reportedly, a pond sample was also collected and analyzed; however analytical results were not located during the record search (URS, 1990). The drum sample had concentrations of 1,1,1-trichloroethane, isophorone, phenol, and bis(2-chloroethyl)ether at 42,000 mg/kg, 8,142 mg/kg, 133.8 mg/kg, and 181.7 mg/kg respectively (URS, 1990). The soil sample had concentrations of 1,1,1-trichloroethane, carbon tetrachloride, 1,2-dichloropropane, trichloroethene, tetrachloroethene, and 1,1,2,2-tetrachloroethane detected at 2,464 mg/kg, 2,922 mg/kg, 4,125 mg/kg, 3123 mg/kg, 1,562 mg/kg, and 2,132 mg/kg respectively.
- 1989 -- New York State Department of Health (NYSDOH) sampled soils in the vicinity of the drum disposal area and analyzed for metals. The highest concentration of metals detected was iron at 24,100 mg/kg.
- November 14, 1989 -- Two soil samples were collected from the eastern portion of fill where numerous 55-gallon drums had been disposed. These samples were analyzed by the NYSDOH laboratory (URS, 1990). Two drums were labelled "Cholorothene-V6" (unknown, 1989). 1,1,1-Trichloroethane, trichloroethene, and

tetrachloroethene were detected in the soil samples at 2.8 ug/kg, 1.0 ug/kg, and 1.2 ug/kg, respectively (URS, 1990).

- November 14, 1989 -- Three residential wells were sampled. Two were located on Broughton Road, less than 1,500 feet southwest of the landfill (A. Stafford and W. Stafford) and one was located approximately 0.75 miles northeast of the landfill (Rutherford) (URS, 1990). The analytical reports indicated that no organic compounds were detected in the samples. A representative of the Wyoming County Health Department indicated that the department had no concern about the water (URS, 1990).

- April 4, 5, and 9, 1990 -- Marcon, Inc. of Rochester, NY, under contract to NYSDEC, collected and crushed approximately 100 empty drums which were stockpiled on-site in plastic. An additional 19 full drums were overpacked and stored on-site. Thirteen of the drums contained solids and six contained liquids. Four of the drum samples failed the ignitability test, and one (drum 4) contained lead in excess of the EP Tox standard (ES, 1993).

- January 1991 to September 1991 -- Marcon, Inc. of Rochester, NY, under contract to NYSDEC, conducted additional drum sampling on the 19 overpacked drums for determination of appropriate disposal (ES, 1993; Lozier, 1991). Lozier Laboratories performed analysis using the TCLP method [1]. Three of the overpacked drums had concentrations in exceedance of federal regulatory limits, resulting in the wastes being classified as hazardous waste. TCLP exceedances included 1,2-dichloroethane, carbon tetrachloride, trichloroethene, and methyl ethyl ketone.

- May 1992 -- NYSDEC collected three samples at the inlet and outlet of the leachate collection pond and at the creek on the "east side of the road (Pond discharge)" (NYSDEC, 1992a). The sample numbers are 186001 (effluent), 186002 (influent), and 186003 (creek). The samples were analyzed by Recra Environmental. VOCs detected in the inlet to the leachate pond included chloroethane at 9 ug/l, methylene chloride at 14 ug/l, acetone at 240 ug/l, 2-butanone at 470 ug/l, benzene at 2 ug/l, 4-methyl-2-pentanone at 27 ug/l, toluene at 31 ug/l, chlorobenzene at 2 ug/l, ethylbenzene at 95 ug/l, and total xylenes at 330 ug/l. VOCs detected at the outlet of this pond included acetone, 2-butanone, ethylbenzene, and total xylenes, all at significantly lower concentrations than at the inlet. Only acetone (at 1 microgram per liter or ug/l) was detected in the creek.

- October 14, 1993 -- Three residential tap water samples were collected (from same locations as collected in November 1989). No VOCs or SVOCs were detected in any of the samples (NYSDOH, 1993a; NYSDOH, 1993b; NYSDOH, 1993c).

4.3 SITE VICINITY

Wyoming County lies near the northern border of the Appalachian Plateau (USDA, 1974). The ETE Site lies in the east, central portion of the county. Streams and rivers in

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[1] The USEPA has replaced the EP Tox method with the TCLP method for determining characteristics of toxicity. Although the methods are similar, the TCLP method addresses 25 constituents, in addition to the 14 addressed by the EP Tox method.

the northern portion of the county occupy deep, narrow valleys. In the southern portion of the county, streams, except for the Genesee River, generally flow at elevations that are more equivalent to the plateau. Land between the streams is gently rolling with broad, flat-topped hills. The northeastern portion of the county contains numerous drumlins which are glacial features consisting of small, elongated hills made up of sand and gravel. The southern half of the county contains large areas of rolling, hummocky topography. About one-third of the county is wooded, and two-thirds occupied by farms and villages. The highest elevation in the county, 2,100 feet above mean sea level, is in the southern portion of the county near the Allegany County line. Elevations of 1,000 feet are common in the valley floors of the northern portion of the county, and the lowest elevation is 627 feet where the Genesee River flows east into Livingston County.

Wyoming County is predominantly agricultural. Dairy farming and grain and forage used in dairy farming are the predominant agricultural enterprises (USGS, 1974). Other agricultural activities include maple products, dried beans, and potatoes. The principal manufacturing industries located in the county within the last 25 years include cutlery, time clocks, knit goods, electronic parts, and manufacturers of various other metal, wood, and plastic parts. In addition, a salt mine is located in the Village of Silver Spring, less than 5 miles northeast of Gainesville.

4.4 REGIONAL ENVIRONMENTAL SETTING

4.4.1 Regional Geology and Soils

Wyoming County is in the Appalachian Plateau physiographic province of New York State (USGS, 1974). The boundary of the Appalachian Plateau with the Ontario Lowlands physiographic province is located in the extreme northeastern corner of the county.

The entire county was covered by glacial ice during the Wisconsin Stage of the Pleistocene Epoch (between 1 million and 10 thousand years ago). The unconsolidated geologic material deposited by the ice sheets and by water associated with melting ice has created a gently rolling topography which is sharply dissected by streams and rivers in the northern portion of the county. The entire county has been covered by multiple ice advances during this time. Some of the sand, silt, clay, and gravel deposited during each advance was subsequently eroded by glacial meltwater and redeposited by the flowing water.

Valleys also contain thick deposits of stratified glacial outwash, which are made up of sand and gravel with very little silt and clay. The stratified outwash deposits were formed during periods when significant quantities of flowing water were produced by melting ice. During periods of high water flow, the finer-grained silt and clay was transported by the water current, and the heavier sands and gravels were deposited on valley floors. During periods of low water flow, layers of silt and clay settled out of the water and covered the sand and gravel, forming a vertical stratification of the material (alternating layers of sand/gravel and silt/clay). In larger valleys, such as the Genesee, lakes were formed by ponded, glacial meltwater. In these valleys, extensive deposits of clay, silt and very fine sand characterize the former lake bottoms.

The unconsolidated geologic material in Wyoming County is underlain by bedrock of the Devonian age (USGS, 1974). Rocks of Middle Devonian age (deposited 387-374

million years before the present) are at lower elevations and more predominant in the northern portion of the county, while those of the Late Devonian Age (374-360 million years before the present) are at higher elevations and further to the south. The bedrock orientation is almost horizontal, with a slight southerly inclination of approximately 60 feet per mile. The formations at the lowest elevations are predominantly Hamilton Group shales which have a high carbonate content. The carbonate content decreases as the age of the units decreases. The younger rocks consist of interlayered beds of sandstone and shale of the Canadaway Group.

4.4.2 Regional Groundwater Hydrology

Groundwater is derived from precipitation which is able to infiltrate through the surface of the ground, where some is retained as soil moisture in the vadose zone, and the remainder percolates downward to the water table, or saturated zone. Groundwater moves at varying rates to points of discharge, which are generally lakes, streams, or springs.

Groundwater in bedrock is located in fractures, or breaks in the bedrock, which create void spaces known as secondary porosity. The most common fractures occur along the horizontal bedding planes of the shale and sandstone. Vertical fractures also provide major conduits for groundwater.

Groundwater in the unconsolidated glacial material is most plentiful in the stratified sand and gravel deposits located in valleys. The poorest sources of groundwater are the clay deposits derived from lake beds (lacustrine deposits) and the upland till deposits. The till deposits, however, because of their variable sand and gravel content are capable of supplying small quantities of water which may be sufficient for domestic purposes.

Regional information indicates that yields from wells in till are generally very low, usually less than 1 gallon per minute (Kammerer and Hobba, 1986). Yields from individual wells in bedrock underlying the till are usually less than 50 gallons per minute, although higher yields have been reported in some places. Most municipal supplies are furnished by reservoirs; however, others are supplied by drilled wells or developed springs (USDA, 1974).

4.4.3 Regional Surface Water Hydrology

Wyoming County is in the Erie-Ontario drainage basin. The eastern portion, where the ETE Site is located, drains into Lake Ontario through Cotton, Oatka, Wiscoy, and East Koy Creeks, and the Genesee River. The surface water in the western portion of the county drains into Lake Erie through Cattaraugus, Buffalo, Cayuga, and Tonawanda Creeks.

Silver Lake, located approximately 4 miles northeast of the ETE Sanitation and Landfill Site, is a water source for the Village of Perry and for several other communities in neighboring counties (NYSDOH, 1961; USDA, 1974). The Village of Warsaw obtains its water from Cotton Creek located approximately 2.25 miles northwest of the ETE Site (NYSDOH, 1982).

4.5 SITE ENVIRONMENTAL SETTING

4.5.1 Site Geology

Soils in the vicinity of the ETE Site are derived from till and glacial outwash or old alluvial deposits. Drilling logs from the monitoring well borings conducted during the 1993 PSA indicate that the subsurface material predominantly consists of stratified glacial outwash (sand, silt and gravel) with interlayered clay lenses (Figures 4.3 and 4.4). The strata are generally less than 4 to 6 feet thick and many are less than 1 to 2 feet thick. Grain size characteristics measured in samples from selected screened intervals indicate that the material consists primarily of silty sand with permeability ranging from 1×10^{-5} to 1×10^{-3} centimeters per second (cm/s) (Table 4.1). Because the strata are generally less than 10 feet thick, the composite samples collected for grain size analysis are actually a measure of the "average" material type. Bedrock was not encountered during drilling activities, indicating that the bedrock depth is greater than 84 feet bgs.

The predominant soils in the vicinity of the ETE site are Bath-Valois gravelly loams and the Mardin channery silt loam (USDA, 1974). These soils form the Bath-Mardin association which is characterized by deep, well-drained low lime soils on uplands with minor amounts of poorly-drained Volusia and Alden or Ellery soils on foot slopes and concave areas or depressions, respectively. The Town of Gainesville contains one of the largest areas of this association in the county (USDA, 1974). Although the Bath and Mardin soils are relatively well-drained, they characteristically have a fragipan layer at 1 to 3 feet below ground surface (bgs).

Permeability is moderate in the surface layer and in the upper part of the subsoil. The Bath-Valois loams are generally more gravelly than other soils of the Bath series and commonly have a deep substratum of stratified sand and gravel rather than basal till (USDA, 1974). Permeabilities generally range from 3.1×10^{-7} to 1.4×10^{-3} cm/s for Bath series soils and range up to 4.4×10^{-3} cm/s for Bath-Valois association soils (USDA, 1974).

The central and southern portions of the site (the landfill portion of the site) are also comprised of Alden mucky silt loam and Mardin channery silt loam. Permeability for the Mardin and Alden soils range from 3.1×10^{-7} cm/s to 1.4×10^{-3} cm/s.

Cover material for the landfill is presumed to be a mixture of the soil types discussed above because soils from surrounding areas were reportedly used for this purpose (URS, 1990).

4.5.2 Site Groundwater Hydrology

Based on boring logs and water level elevations, a shallow water table aquifer is present in the unconsolidated sediments at the site. No confining layers were identified from the boring logs. Water levels in the shallow and deep monitoring well pairs indicate a slight downward gradient. Water levels in the shallow wells were approximately one foot higher than water levels in corresponding deep wells.

Groundwater level contour maps, based on the shallow and deep monitoring wells, indicate a northeasterly groundwater flow direction (Figures 4.5, Figure 4.6, and Table 4.2). The south pond is located upgradient to the site and appears to be a local groundwater recharge area for shallow groundwater. Water levels indicate that the

leachate collection pond, north and downgradient of the landfill, acts as a local groundwater discharge area.

An elongated hill along the southeast perimeter of the site most likely influences shallow groundwater flow. A groundwater mound may exist beneath this topographic feature.

At least three private (overburden) wells are located within a 1-mile radius of the site (URS, 1990). These three wells were sampled by the NYSDOH in 1989. The majority of the Town of Gainesville and surrounding population are supplied with drinking water from private wells in the glacial aquifer (URS, 1990). These springs are reportedly located over 5 miles southwest and upgradient of the Warsaw Site.

The Village of Silver Springs is supplied by water from two wells and two springs located within 2 miles east of the ETE Site (URS, 1990). One of these wells is reportedly in unconsolidated glacial material and the other in bedrock (URS, 1990).

4.5.3 Site Surface Water Hydrology

The topography in the area slopes downward toward the north, from an elevation of approximately 1,750 feet above sea level, less than 1 mile southeast of the site, to an elevation of 1,400 feet above sea level at Cotton Creek, less than 0.75 mile north of the site. The topography southwest of the site is relatively flat to Koy Creek approximately 1.25 miles southwest of the site.

The vicinity of the ETE Site is dotted by small ponds, primarily concentrated within 1 mile southeast of the site. Two ponds are located on-site with a seasonal tributary joining them. The northern (downstream) pond is a leachate collection pond from which water flows northward into Cotton Creek, approximately 0.75 miles north of the site. Two additional ponds are located less than 500 feet east of the site, bordering both sides of Jordon Road.

Cotton Creek flows east and discharges to Oatka Creek. Oatka Creek flows in a northward direction and becomes a major tributary to the Genesee River (NYSDOH, 1961). The Village of Warsaw obtains its water from an intake on Cotton Creek located approximately 1 mile northwest of the ETE Site (NYSDOH, 1982). Cotton Creek is a Class A water body upstream from (west of) the water supply dam. Class A water bodies are suitable as a drinking water source and all other uses (e.g., fishing, fish propagation, primary contact recreation, etc.) (NYSDEC, 1985, 1991c). Below the water supply dam, Cotton Creek is a Class C water body. Class C water bodies are suitable for fishing, fish propagation, and primary contact recreation (NYSDEC, 1991c). Oatka Creek is also a Class C water body south of (upstream from) the Village of Warsaw (NYSDEC, 1985). Within Warsaw, Oatka Creek is a Class D water body. Class D water bodies are suitable for fishing (but not for fish propagation) and primary contact recreation, although other factors may limit the use for these purposes (NYSDEC, 1991c). Koy Creek is located approximately 1.25 miles southwest of the ETE Site. Portions of Koy Creek are classified as Public Fishing Rights waters (NYSDOH, 1961).

Maximum 24-hour rainfall in this region is approximately 2.5 inches, annual precipitation is 40 inches, evaporation is approximately 27 inches per year, and net precipitation is approximately 13 inches per year (URS, 1990). The site and vicinity are

classified "Zone C", a classification for areas outside the 500-year flood plain (FEMA, 1983).

No wetlands are located within 1 mile of the site (URS, 1990).

4.6 SITE CONTAMINATION ASSESSMENT

The following subsections summarize the results of Tasks 3 (Initial Environmental Sampling) and 4 (Subsurface Environmental Sampling). Whenever possible, samples were collected upgradient of the site to establish ambient or background conditions. These levels were compared to those found on-site, downstream, or downgradient of the site. Concentrations downstream or downgradient of the site in excess of three times the upgradient or upstream concentrations may indicate a release from an on-site contaminant source. This criterion is generally recognized by the USEPA and the NYSDEC as constituting a "significantly higher" concentration for purposes of scoring an HRS observed release for a particular pathway. However, comparison of shallow groundwater inorganic data is questionable because of high turbidity readings from MW-2S. Because of elevated inorganic concentrations from MW-2S, relative to the other shallow wells, comparisons to upgradient concentrations were made with MW-1S. Where deemed appropriate, concentrations for the leachate sample were compared to concentrations found in groundwater samples because of similar impacts from soil conditions.

Downgradient or downstream results may also be used to determine the threat posed by hazardous waste on-site to the public health and environment. EP Tox testing was also conducted where deemed appropriate to address visible, or otherwise suspected, on-site contamination, for confirmation of on-site hazardous waste. Where appropriate, aqueous sample results have been compared to applicable NYSDEC ambient water quality and guidance values. Soil and sediment sample inorganic results have been compared to published naturally-occurring ranges for the conterminous United States (Shackelette and Boerngen, 1984). VOC, SVOC, pesticide and PCB results for soil and sediment samples have been compared to USEPA human health-based levels for carcinogens and systemic toxicants (NYSDEC, 1992). Downgradient or downstream results were used to determine the threat posed by hazardous waste on-site to the public health and environment.

As stated in Section 3, "validation" of analytical results was limited to sample tracking and contract compliance screening. Assessment of analytical results included reviewing sample holding times and evaluating laboratory blank samples. In most cases concentrations in field samples less than five times blank sample concentrations were considered to be attributable to laboratory contamination and were identified as such. For common laboratory contaminants (methylene chloride, acetone, toluene, 2-butanone, and common phthalate esters), the criterion used was ten times the blank sample concentrations.

Certain concentrations were flagged with a "J", indicating an estimated value. The concentrations were estimated because they were lower than the contract-required detection limit (CRDL) but higher than the instrument detection limit (IDL).

4.6.1 Sediment Sample

One sediment sample was collected from the inlet to the leachate collection pond, adjacent to the south shore of the leachate collection pond. The sediment sample was analyzed for TCL organic compounds (VOCs, SVOCs, pesticides, and PCBs), TAL

Sediment

metals, and cyanide. This sample was also analyzed for leachable metals by the EP Tox method.

Sample results are shown on Table 4.3.

OK

VOCs

Six VOCs were detected in the sediment sample; however, methylene chloride and benzene were detected at less than five times and ten times, respectively, of the concentrations detected in the laboratory's method blank and are therefore assumed to be due to laboratory contamination. Acetone, 2-butanone, ethylbenzene, and xylenes were detected at estimated concentrations below the USEPA human health-based levels (NYSDEC, 1992b). All four compounds are potential listed hazardous wastes; however, with the exception of 2-butanone, documented on-site use or disposal has not been located to date. 2-Butanone, also known as methyl ethyl ketone (MEK), exceeded the TCLP regulatory action level in one on-site drum sample collected during removal activities in 1991.

?

OK

SVOCs

Four SVOCs were detected in the sediment sample; however, diethyl phthalate was detected at less than ten times the concentration detected in the corresponding method blank, and is therefore assumed to be attributable to laboratory contamination. Phenanthrene, fluoranthene, and pyrene, were detected at estimated concentrations of 34 ug/kg, 39 ug/kg, and 37 ug/kg, respectively. These concentrations are below the USEPA human health-based levels shown on Table 4.3.

Phenanthrene, fluoranthene, and pyrene belong to a class of organic compounds known as polynuclear aromatic hydrocarbons (PAHs). PAHs are extremely common in residue from fires, coal, charcoal, coal tars, and heavy fuels, such as fuel oil. The practice of burning landfill material is the likely source of the PAHs in the sediment.

OK

Pesticides

4,4'-DDD, 4,4'-DDE, and heptachlor were detected at low, estimated concentrations in the sediment sample. All concentrations are below the USEPA human health-based levels (NYSDEC, 1992b). 4,4'-DDD and heptachlor are potential listed hazardous wastes. However, the relatively low concentrations, the lack of documented on-site use or disposal, and the number of farms in the vicinity of the site, indicates that the presence of these pesticides may be attributable to agricultural use.

OK

PCBs

No PCBs were detected in the sediment sample.

OK

Inorganics

Except for cyanide, all detected inorganic analytes were within natural background ranges for the eastern United States (Shackelette and Boerngen, 1984). However, iron, manganese, and sodium were above the range detected in surface and/or subsurface soils. The concentration of potassium was higher than for surface soils but was relatively equivalent to subsurface soils. The elevated levels of iron and manganese are likely due to deposition/precipitation from landfill leachate. The detection of sodium corresponds to

the historical reports of the salt disposal (see Section 4.2). Cyanide exceeded the natural background range of non-detect.

None of the concentrations of metals detected in the EP Tox test of this sample exceeded the hazardous waste regulatory standard.

4.6.2 Leachate Sample

One leachate sample was collected from the tributary to the leachate collection pond. This sample was collected at the point where the tributary flows into the leachate collection pond, near the location of the sediment sample. This sample was analyzed for TCL organic compounds TAL metals, and cyanide.

Sample results are shown on Table 4.4. The results are compared to applicable surface water standards for the closest water body downgradient from the site, based on the potential for leachate to affect the water body. Cotton Creek (Class C water body) is the closest water body with a NYSDEC stream classification.

VOCs

Eight VOCs were detected in the leachate sample. However, methylene chloride, acetone, and 2-butanone were detected at less than ten times the concentrations in the corresponding laboratory method blank, and therefore, there presence is assumed to be a result of laboratory contamination. Chloroethane and toluene were detected at estimated concentrations, and 4-methyl-2-pentanone, ethylbenzene, and xylenes, were detected well above the contract required quantitation limit (CRQL). No Class C surface water standards exist for any of these compounds. These compounds are likely to be attributable to materials disposed in the landfill, and toluene, chloroethane, and 4-methyl-2-pentanone are potential listed hazardous wastes. However, with the exception of 2-butanone and chloroethane, no documented on-site use or disposal of these specific compounds has been identified to date. 2-Butanone was detected in one drum in exceedance of the TCLP regulatory action level and a drum labeled "Chloroethane-V6" was observed on-site. Chloroethane, toluene, 4-methyl-2-pentanone, ethylbenzene, and xylenes was also detected in the leachate sample collected by the NYSDEC in 1992.

SVOCs

Thirteen SVOCs were detected at low concentrations in the leachate sample; eleven at estimated concentrations. Only naphthalene and methylnaphthalene were detected at concentrations above the CRQL. Eight of the detected SVOCs are PAHs, including the two compounds detected in the highest concentrations, and two are phthalates. The source of the SVOCs is likely to be the material deposited in or burned on the landfill. Documented on-site use or disposal has not been identified to date.

Pesticides

Gamma-BHC (Lindane) and gamma-chlordane, were detected at estimated concentrations in the leachate. Gamma-chlordane was detected at 0.017 ppb, in exceedance of the NYSDEC Class C water quality standard of 0.002 ppb. Documented on-site use or disposal has not been identified to date. The presence of pesticides at low concentrations may be attributable to agricultural use in the vicinity of the site.

PCBs

No PCBs were detected in the leachate sample.

Inorganics

With the exception of barium, calcium, iron, and sodium, concentrations of inorganic analytes in the leachate sample were comparable to concentrations in groundwater from MW-4, in the vicinity of where the leachate sample was collected. Concentrations exceeding Class C water quality standards included: copper, iron, zinc, and cyanide. The elevated concentrations of copper, and zinc are consistent with elevated concentrations found in groundwater upgradient of the landfill, from MW-1S. However, the concentrations of iron was greater than three times the upgradient groundwater concentration, indicating the landfill is the source of iron. Elevated concentrations of iron are likely attributable to on-site disposal of metal wastes. Although no documentation of on-site use or disposal of cyanide has been identified to date, its presence may be attributable to reported disposal of plating wastes. Cyanide also exceeded the Class C water quality standard in a leachate sample collected by the NYSDEC in 1987.

4.6.3 Soil Samples

Surface soil samples were collected from areas which may have been impacted by landfill operations, including stained soils and/or soils in the vicinity of on-site drums. Surface soil SS004 was a duplicate sample for SS001. Subsurface soil samples were collected from monitoring well borings MW-1S, MW-2S, MW-3D, and MW-4. MW-2S was the designated upgradient/background location. Subsurface soil sample SSB3 was a duplicate sample for SSMW-3D.

Three surface soil samples (plus one duplicate) and four subsurface samples (plus one duplicate) were collected. With the exception of duplicate samples, all surface and subsurface soil samples were analyzed for TCL organics, TAL inorganics, and cyanide. Samples SS004 and SSB3 were analyzed for TCL organics only. In addition, samples SS001 (and duplicate SS004) and SS003 were analyzed by the EP Tox method for leachable metals.

Sample results are shown on Tables 4.5 and 4.6 for surface and subsurface soils, respectively.

VOCs

Four VOCs were detected in surface the soil samples. However, methylene chloride and benzene concentrations were less than ten times and five times, respectively, greater than concentrations in the corresponding method blank. Therefore, the presence of these two compounds is assumed to be attributable to laboratory contamination. With the exception of an estimated concentration in SS001, the presence of 2-butanone was attributable to laboratory contamination. Acetone was detected in all three surface soil samples; however, its presence in SS003 was attributed to laboratory contamination. 2-Butanone and acetone concentrations were below the USEPA human health-based levels. Their presence may be attributable to reported on-site disposal of solvents; however, documented on-site use or disposal of only 2-butanone has been identified to date.

Six VOCs were detected in subsurface soil samples. However, the concentration for methylene chloride was less than ten times the concentration in the corresponding method

blank. The presence of methylene chloride is therefore attributable to laboratory contamination. Acetone was detected at equivalent concentrations (10 ug/kg to 19 ug/kg) in all of the subsurface soil samples. The remaining VOCs were detected at estimated concentrations in the upgradient sample, SSMW-2S, and the duplicate sample for SSMW-3D. All of the VOC concentrations were below the USEPA human health-based levels (NYSDEC, 1992b). The low concentrations, the detection of compounds in the upgradient sample location, and the lack of replicability between duplicate samples indicates that attributing the presence of these compounds to the site may be questionable. Resampling and reanalysis may be warranted.

SVOCs

Fourteen SVOCs were detected in surface soil samples. The concentration of diethyl phthalate was less than ten times the concentration in the corresponding method blank, and is therefore attributed to laboratory contamination. Sample SS001 contained 11 SVOCs, all of which are PAHs. The concentrations from both SS001 and its duplicate SS004 were in good agreement and all were qualified as estimated. These results indicate that the area were this sample was collected is likely to have been impacted by the reported refuse burning discussed in Section 4.2. Concentrations of all detected PAHs are below USEPA human health-based levels. Sample SS003 contained five SVOCs at estimated concentrations, including three PAHs and two phthalates. The phthalates are common plasticizers and may be related to plastic debris, such as garbage bags, deposited in the landfill.

Three SVOCs were detected in subsurface soil samples. The sample collected from 4 to 10 feet bgs at MW-1S contained two phthalates at low (estimated) concentrations. One of the phthalates was also detected at a low concentration in the sample collected from 2 to 8 feet bgs at MW-4. These phthalates may be associated with plasticizers in material disposed in the landfill. The phthalate concentrations were below the USEPA human health-based levels. Bis(2-chloroethyl)ether was detected at a low, estimated concentration in the sample collected from 2 to 22 feet bgs from the upgradient well MW-2S. Bis(2-chloroethyl)ether was also detected in a drum sample collected by the NYSDEC in 1987. No USEPA human health-based level was identified for comparison for this compound.

No SVOCs were detected in the deep sample (and duplicate) collected from 71 to 78 feet bgs at location MW-3D.

Pesticides

Low concentrations of nine pesticides were detected in surface soil samples. All but endosulfan I and endosulfan sulfate were estimated. Five pesticides were detected in SS001; however, duplicate sample SS004 contained only one of these five pesticides and also contained one additional pesticide, indicating the results from these two samples were not in good agreement. Sample SS003 contained five pesticides, three of which were detected only at this location. All detections were below the USEPA human health-based levels.

Two pesticides were detected at estimated concentrations in two of the subsurface soil samples. SSMW2 contained endosulfan II and duplicate sample SSB3 contained aldrin.

The concentration of aldrin was below the USEPA human health-based level. No level was available for endosulfan II for comparison. Aldrin was not detected in SSMW3D.

Although the presence of pesticides in surface soils is likely attributable to agricultural use in the vicinity of the site, no uniform distribution of pesticides can be ascertained from the detections in surface and subsurface soil samples. Documentation of on-site use or disposal has not been identified to date.

OK

PCBs

PCB congener aroclor 1260 was detected in surface soil sample SS001 and its duplicate SS004. The concentrations were estimated at 71 and 73 ug/kg. These concentrations are below the USEPA human health-based level of 1,000 ug/kg (NYSDEC, 1992b).

Documented on-site use or disposal of PCBs has not been identified to date. No PCBs were detected in subsurface soil samples.

OK

Inorganic

Inorganic analyte concentrations were within naturally-occurring ranges for all samples (Shacklette & Boerngen, 1984). Elevated concentrations relative to the other surface and subsurface soil samples collected included lead, zinc, iron, and sodium. Lead concentrations were high in the surface soils relative to concentrations in subsurface soil samples. Additionally, zinc was elevated in two of the three surface soils relative to its levels in subsurface soils. The concentration of iron was significantly higher in surface sample SS001 than in all other samples.

The subsurface soil sample collected at 71 to 78 feet bgs at MW-3D contained elevated concentrations of potassium and magnesium relative to other samples. This is likely attributable to the natural occurrence of these analytes at higher concentrations in the deeper strata.

The subsurface soil sample collected from MW-4, near the leachate collection pond, had a high concentration of sodium relative to other samples. This may be related to elevated sodium noted in the sediment sample nearby and to the disposal of salt noted in Section 4.2.

None of the concentrations of leachable metals analyzed by the EP Tox method exceeded applicable standards.

(See 4-9-90 Sampling)
10.2 Pb ppm

4.6.4 Groundwater Samples

Seven monitoring wells were installed, including three shallow/deep well pairs and one shallow well. MW-2S and MW-2D were designated as upgradient wells. Downgradient wells consisted of well pairs MW-1S/1D and MW-3S/3D, and MW-4. Although the groundwater contours suggest that wells MW-1S and MW-1D are at upgradient locations, their close proximity to the landfill boundary suggests that landfill conditions would likely be detected at these two locations. All samples were analyzed for TCL organic compounds, TAL metals, and cyanide. Detected analytical results are shown on Table 4.7.

VOCs

Ten VOCs were detected in groundwater samples. However; the concentrations of methylene chloride, acetone, and 2-butanone were less than ten times the concentrations in the corresponding method blanks. Therefore their presence is assumed to be attributable to laboratory contamination. Remaining detected VOC concentrations were limited to groundwater samples from monitoring wells, MW-3S, MW-3D, and MW-4.

Sample GW03-S contained six VOCs: vinyl chloride, chloroethane, 1,1-dichloroethane, 1,2-dichloroethene, 1,2-dichloroethane, and trichloroethene. All six are chlorinated hydrocarbons which are common solvent constituents in many manufacturing and industrial processes. Their presence in the shallow groundwater at this location indicates that chlorinated solvents or a solvent blend was disposed within the landfill, or that a solvent such as trichloroethene was disposed and is decomposing/degrading to the other, simpler chlorinated hydrocarbons (Dragun, 1988). Specifically, the presence of vinyl chloride may be attributable to degradation of trichloroethene detected in on-site drums; the presence of chloroethane may be attributable to an on-site drum labeled "Chloroethane-V6"; and the presence of 1,2-dichloroethane and trichloroethene may be attributable directly from release of wastes detected in on-site drums. Concentrations of four of the compounds exceeded Class GA groundwater standards (Table 4.7).

Sample GW03-D contained chloroethane and 1,2-dichloroethene at low, estimated concentrations. Although a downward groundwater gradient exists in the vicinity of the site, as noted above, the dissolved contaminants appear to be restricted to the shallow groundwater (less than 20 feet bgs). The chlorinated VOCs are generally more dense than water and if present in sufficient quantity can form a separate dense-phase plume. However, the groundwater concentrations of chlorinated VOCs are significantly below saturation levels, indicating that a separate phase most likely has not occurred. This is further supported with the detection of higher chlorinated VOC concentrations in the MW-3S (shallow well) than in MW-3D (deep well).

Sample GW004 (collected from MW-4) contained low (estimated) concentrations of 1,1-dichloroethane, 1,2-dichloroethene, 1,2-dichloroethane, and benzene.

SVOCs

No SVOCs were detected in the groundwater samples.

Pesticides

No pesticides were detected in the groundwater samples.

PCBs

No PCBs were detected in the groundwater samples.

Inorganics

Class GA groundwater standards or guidance values were exceeded for iron in all samples and for manganese in all but one sample. This indicates that the groundwater in the vicinity of the landfill is likely to contain high background concentrations of these two analytes.

In general, the shallow wells and wells downgradient of the fill area had higher concentrations of inorganic analytes. Table 4.7 shows detected analytes and compares them to NYSDEC Class GA groundwater standards and guidance values.

Upgradient well MW-2S contained concentrations of aluminum, calcium, copper, iron, lead and zinc which were high relative to other wells. The elevated concentrations may be attributable to undissolved particles based on the high turbidity reading (>200 NTU) and dark brown appearance of the groundwater from this well noted during purging. The turbidity reading for MW-2D was less than 50 NTU. Because of this discrepancy, downgradient samples have been compared to MW-1S for shallow wells MW-3S and MW-4, and to MW-2D for downgradient deep wells MW-3D to determine possible releases of inorganics from the landfill.

Potential releases to shallow groundwater include barium, cadmium, calcium, magnesium, manganese, nickel, potassium, sodium, and zinc. Of this group of analytes possibly released from the fill, Class GA groundwater standards or guidance values were exceeded for magnesium, manganese, sodium, and zinc in downgradient wells MW-3S and MW-4.

Potential releases to deep groundwater include: aluminum, barium, cadmium, calcium, iron, magnesium, manganese, potassium, sodium, and zinc. Of this group of analytes possibly released by the fill, Class GA groundwater standards or guidance values were exceeded for iron, magnesium, manganese and sodium.

4.6.5 Presence of Hazardous Wastes

Title 6 of the New York Codes, Rules, and Regulations (6NYCRR), Part 371 establishes two categories of hazardous wastes: (1) listed hazardous wastes, and (2) characteristic hazardous wastes. Listed hazardous wastes are generated by certain industrial processes, or are judged to have an acute hazard or toxicity associated with exposure to them. Listed hazardous wastes are assigned USEPA hazardous waste numbers with "F", "K", "P", "U", or "B" prefixes.

Characteristic hazardous wastes are identified using analytical methods specified in 6NYCRR, Part 371, and are assigned "D" prefixes. The hazardous waste characteristics include toxicity, reactivity, corrosivity, and ignitability. The EP Tox method is used in New York State to identify hazardous wastes having the toxicity characteristic.

Many of the analytes detected in the field samples collected during the PSA investigation are listed potential hazardous wastes (Sections 4.6.1 to 4.6.5). However, the presence of these listed compounds on-site can not be used to establish the presence of hazardous waste at the site because: (1) they cannot be directly attributed to documented specific or non-specific sources as required by 6NYCRR, Part 371.4(b) and (c); or (2) they cannot be directly attributed to the disposal of a "commercial chemical product, manufacturing chemical intermediates, or off-specification commercial chemical products" as required by 6NYCRR, Part 371.4(d), based on limited information obtained to date. The determination of toxicity by the TCLP Method is not an approved method under 6NYCRR 371. However, the EP Tox results for lead and the ignitability results for drum wastes provide the documentation necessary to show the presence of hazardous wastes as defined by 6NYCRR, Part 371.

Preliminary assessment (PA) evaluation scoring was conducted using the USEPA PA-Score (version 2.1) program. The ETE Sanitation and Landfill Site had a score of 34, indicating that HRS scoring may be warranted.

4.6.6 Presence of Significant Threat

The presence of a "significant threat" to public health or the environment, as defined by 6NYCRR, Part 375, may be established by analytical data showing that hazardous substances: (1) have been released to environmental media from hazardous waste disposed at the site, and (2) are present in concentrations exceeding accepted health or environmental standards or guidance values. The criteria used to establish releases is discussed in the introduction to Section 4.6.

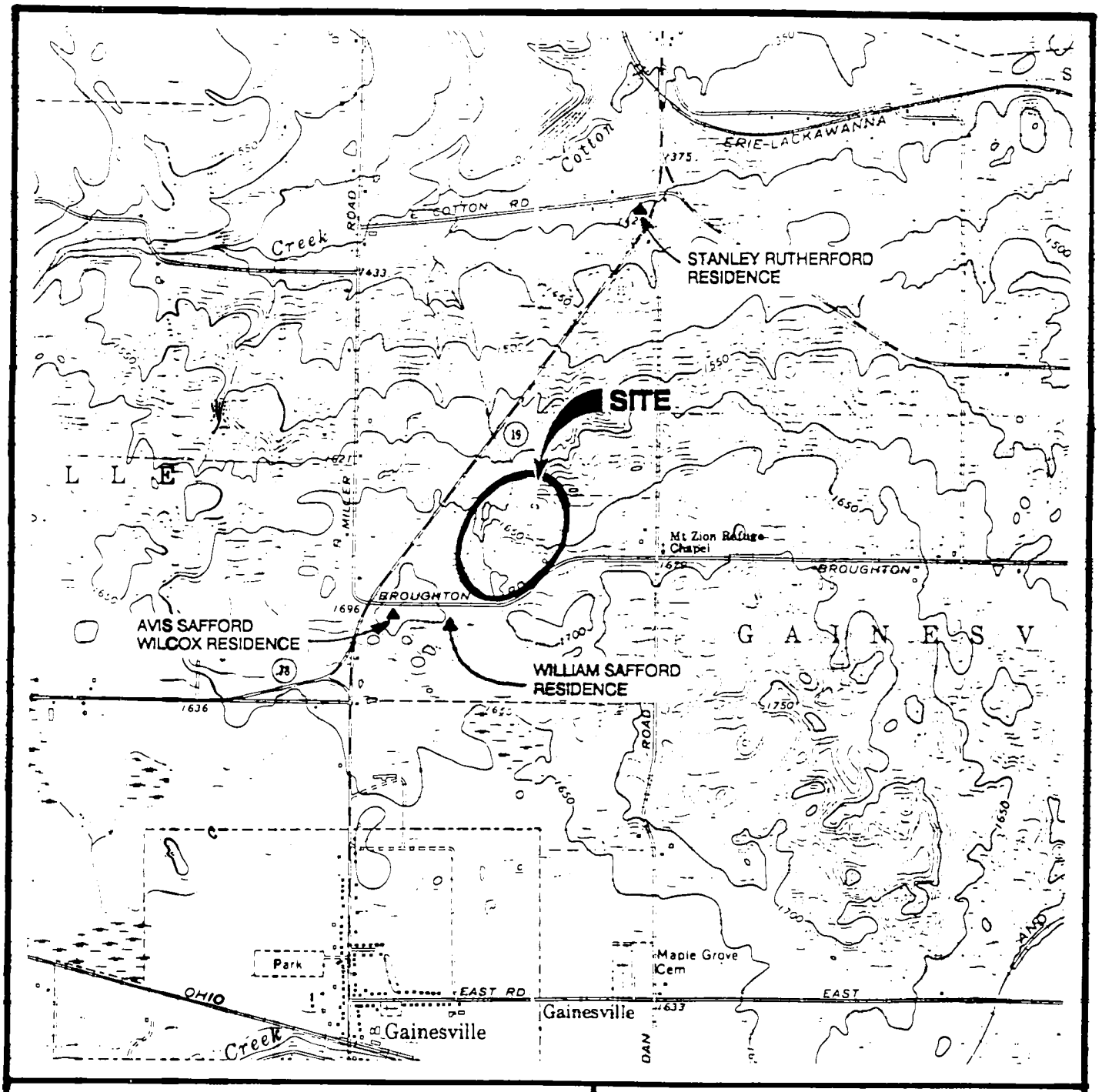
Although the on-site disposal of hazardous waste has been determined, a significant threat resulting from the hazardous waste has not been identified. Explosive and/or fire concerns have been determined not to exist (URS, 1990). Although components of the ignitable wastes were never determined to allow that correlation to be made.

The groundwater exceedance for lead in MW-25 appears to be insufficient for showing significant threat; the concentration only slightly exceeded the standard and it is questionable whether MW-2 accurately reflects site impacts (MW-2 was originally designated an upgradient well).

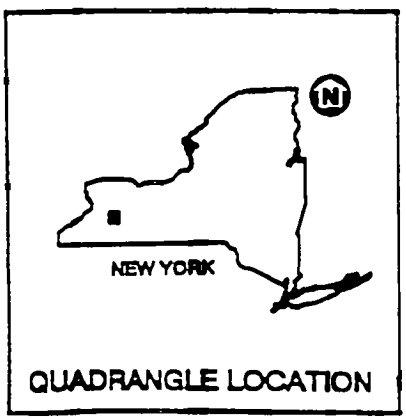
A significant threat attributable to hazardous waste disposed on-site, as defined by 6NYCRR 371, cannot be established. However, the exceedance of groundwater standards by chlorinated organics indicates that a significant threat could be shown to exist if the components of the ignitable wastes correlated with the exceedances of groundwater standards.

Additional concern may also be warranted for copper, iron, zinc, and cyanide Class C surface water quality standard exceedances (leachate samples).

FIGURE 4.1



SOURCE: U.S.G.S. 7.5 MINUTE SERIES TOPOGRAPHIC MAP; WARSAW, NY 1972, CASTILE, NY 1972.



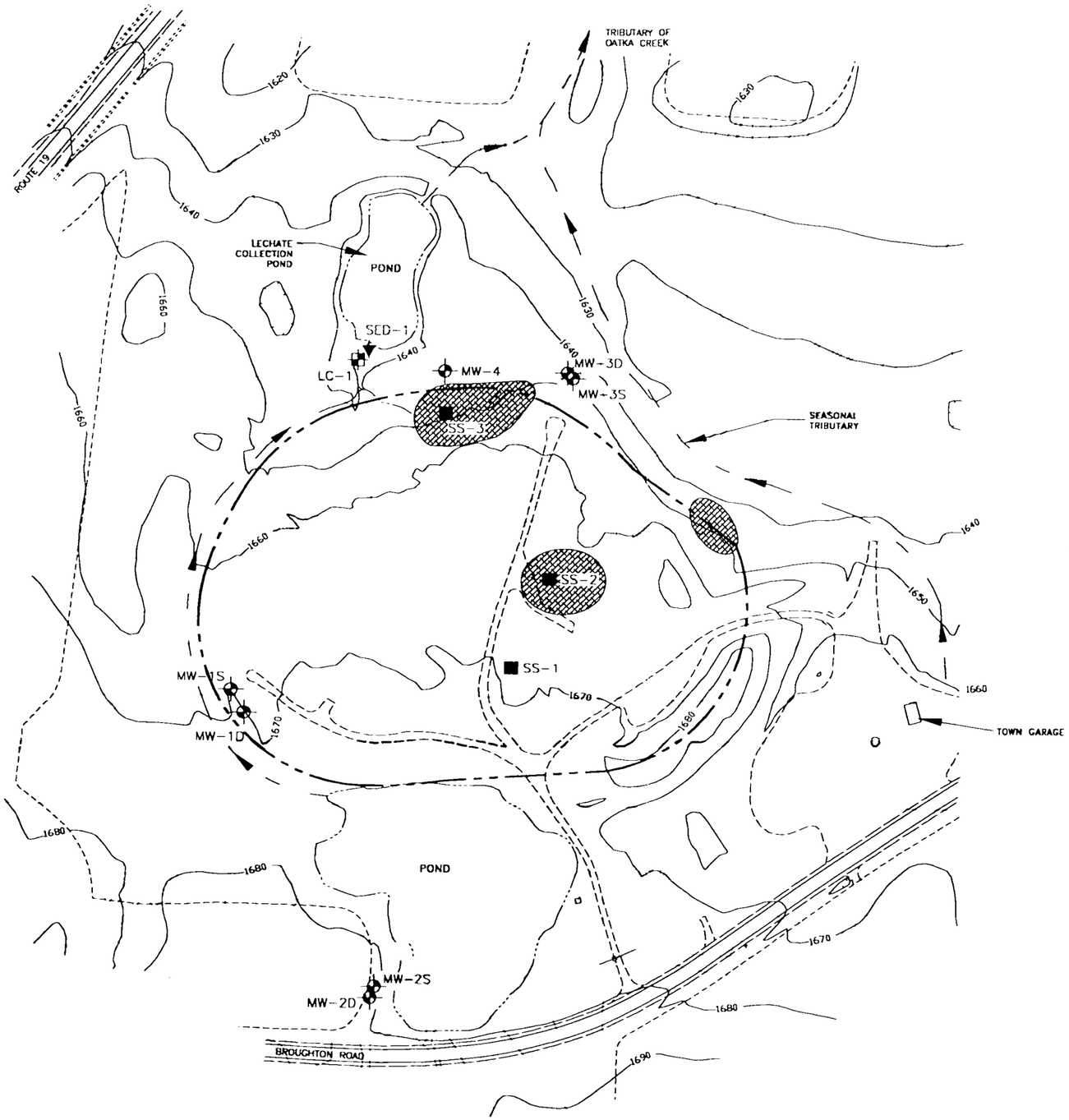
QUADRANGLE LOCATION

LONGITUDE: 78°07'30"
LATITUDE: 42°38'58"

SCALE
0 2000 4000 FT.
2000 FT.

ENGINEERING - SCIENCE

SITE LOCATION MAP
ETE SANITATION
GAINESVILLE, NEW YORK



LEGEND

- APPROXIMATE LANDFILL BOUNDARY
- DRUM LOCATIONS
- DRAINAGE/TRIBUTARY
- MW-1D — MONITORING WELL
- SS-2 — SOIL SAMPLE
- LC-1 — LECHATE SAMPLE
- SED-1 — SEDIMENT SAMPLE

NOTE: TRIBUTARIES AND DRUM LOCATIONS ARE APPROXIMATE.

200' 100' 0 200'

Approximate Scale in Feet

CONTOUR INTERVAL: 10'

MAPPING COMPILED BY STEREOPHOTOGRAMMETRIC METHODS FROM 1"=400' SCALE AERIAL PHOTOGRAPHY FLOWN 05/10/93.

MAPPING COMPILED WITHOUT BENEFIT OF A FIELD EDIT.

AREAS OUTLINED AND NOTED INDICATE AREAS OF DOUBTFUL ACCURACY.

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
PRELIMINARY SITE ASSESSMENT

SAMPLE LOCATION MAP
ETE SANITATION AND LANDFILL SITE

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DESIGN • RESEARCH • PLANNING
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OFFICES IN PRINCIPAL CITIES

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REVISED: 2/2/94
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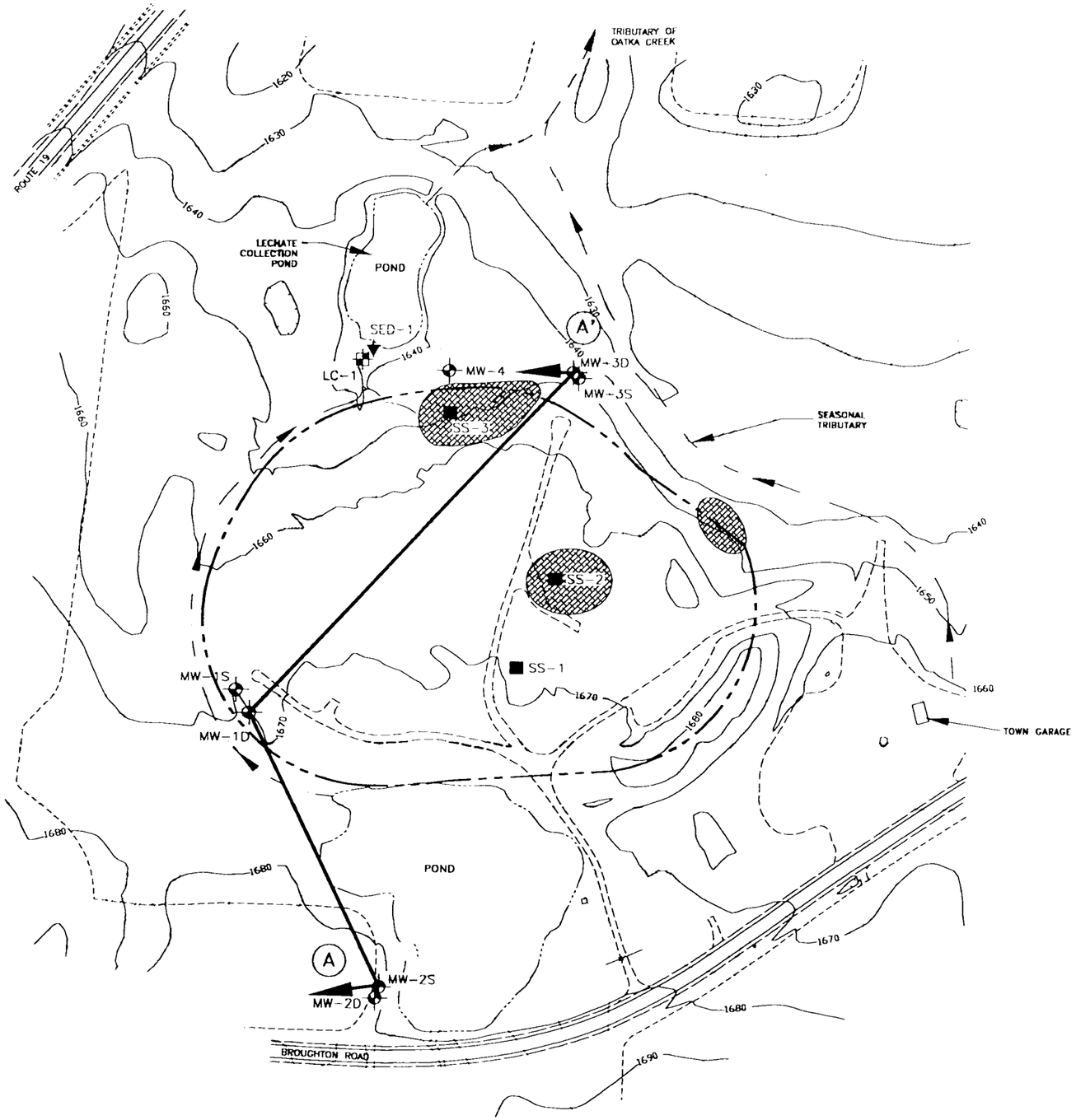

LEGEND

- APPROXIMATE LANDFILL BOUNDARY
- DRUM LOCATIONS
- DRAINAGE/TRIBUTARY
- MW-1D — MONITORING WELL
- SS-2 — SOIL SAMPLE
- LC-1 — LECHATE SAMPLE
- SED-1 — SEDIMENT SAMPLE
- (A) — LINE OF CROSS SECTION

NOTE: TRIBUTARIES AND DRUM LOCATIONS ARE APPROXIMATE.

200' 100' 0 200'

Approximate Scale in Feet

CONTOUR INTERVAL: 10'

MAPPING COMPILED BY STEREOPHOTOGRAMMETRIC METHODS FROM 1"=400' SCALE AERIAL PHOTOGRAPHY FLOWN 05/10/93.

MAPPING COMPILED WITHOUT BENEFIT OF A FIELD EDIT.

AREAS OUTLINED AND NOTED INDICATE AREAS OF DOUBTFUL ACCURACY.

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
PRELIMINARY SITE ASSESSMENT

CROSS SECTION LOCATION MAP
ETE SANITATION AND LANDFILL SITE

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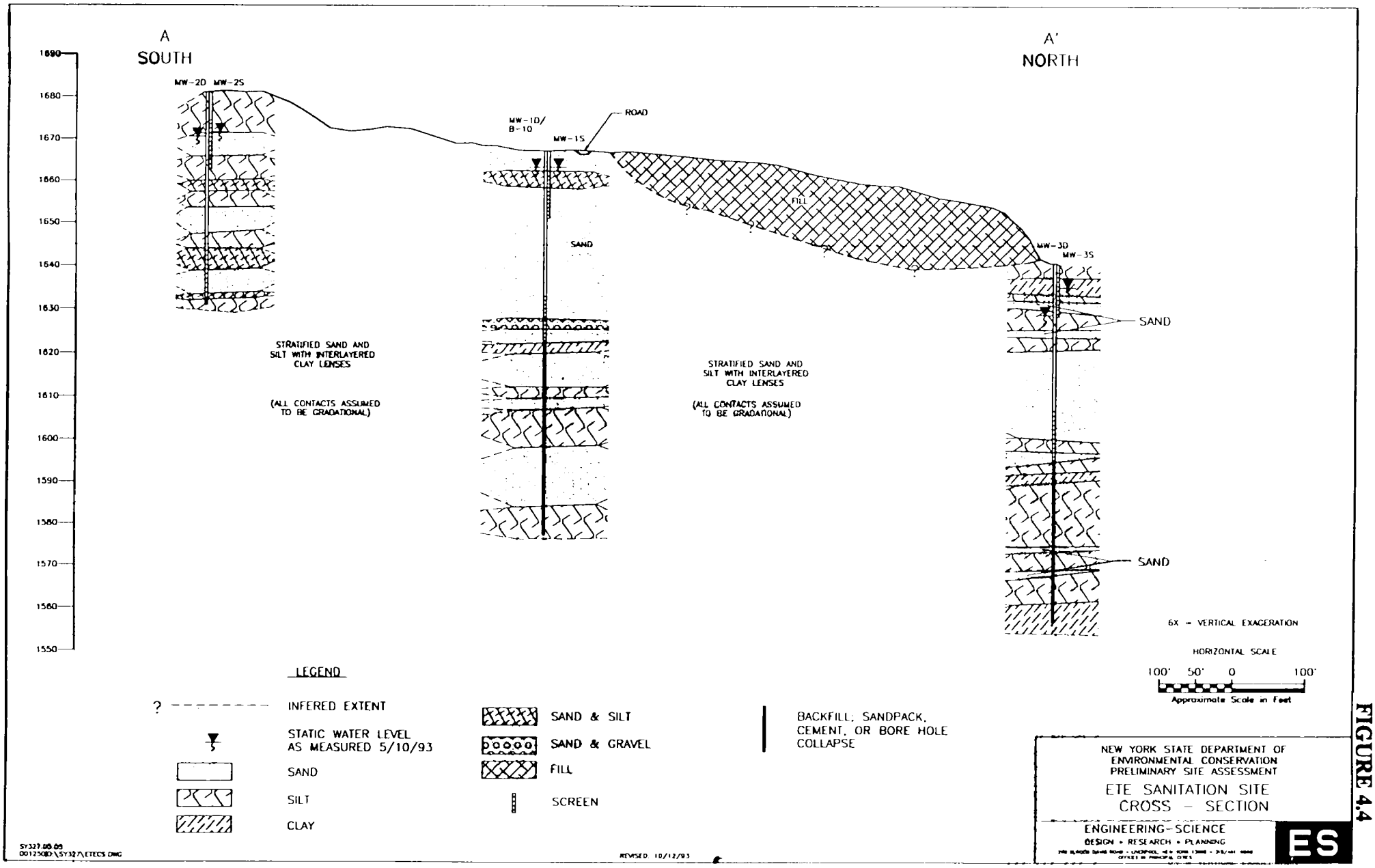

NEW YORK STATE DEPARTMENT OF
ENVIRONMENTAL CONSERVATION
PRELIMINARY SITE ASSESSMENT

ETE SANITATION SITE
CROSS - SECTION

ENGINEERING-SCIENCE
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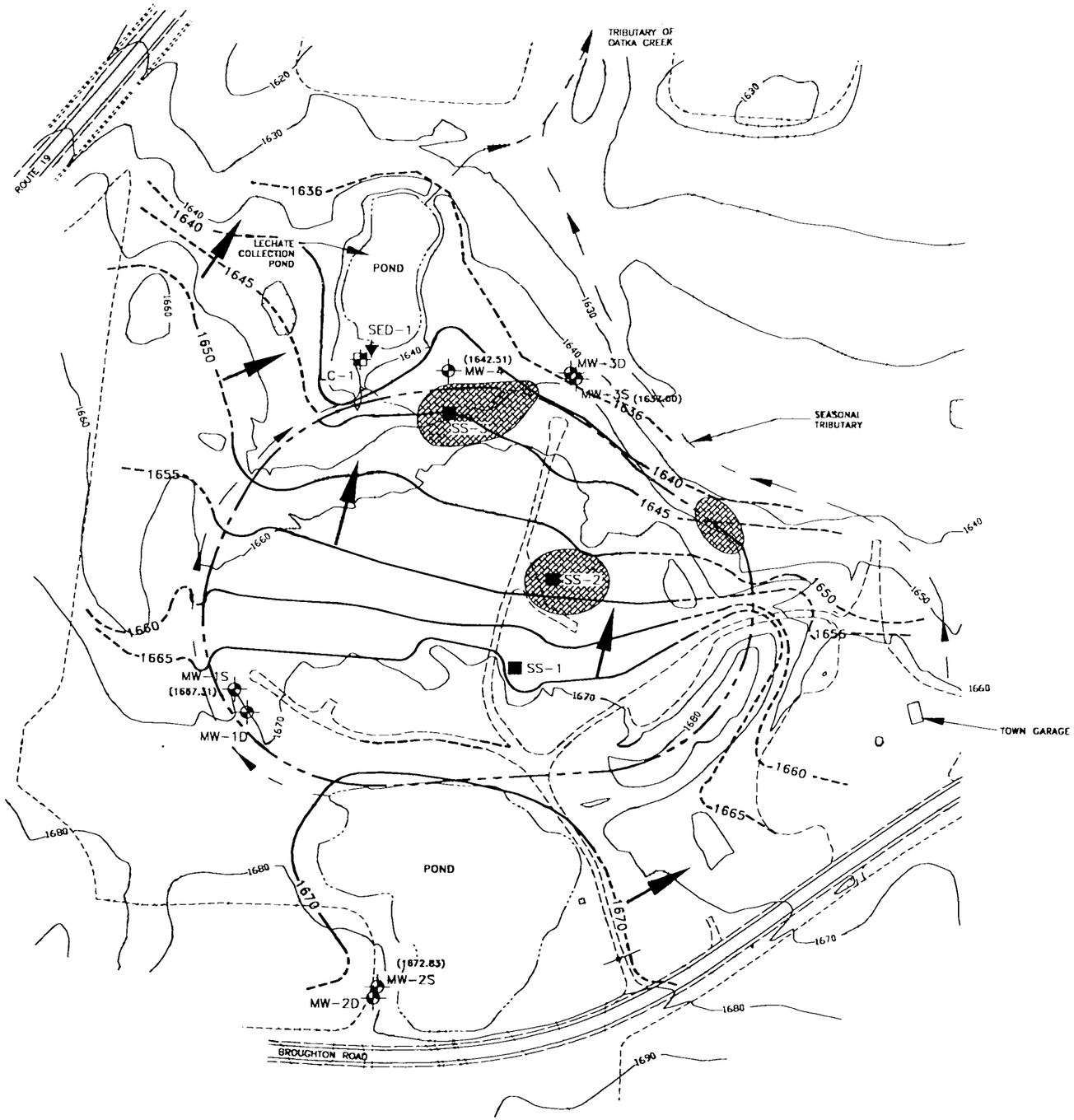
FIGURE 4.4

REVISED 10/12/93



LEGEND

- APPROXIMATE LANDFILL BOUNDARY
- DRUM LOCATIONS
- DRAINAGE/TRIBUTARY
- MW-1D — MONITORING WELL
- SS-2 — SOIL SAMPLE
- LC-1 — LECHATE SAMPLE
- SED-1 — SEDIMENT SAMPLE
- 1672 — SHALLOW GROUNDWATER CONTOUR
- GROUNDWATER FLOW DIRECTION

CONTOUR INTERVALS = 5 FEET

NOTE: TRIBUTARIES AND DRUM LOCATIONS ARE APPROXIMATE.

200' 100' 0 200'

Approximate Scale in Feet

CONTOUR INTERVAL: 10'
MAPPING COMPILED BY STEREOPHOTOGRAMMETRIC METHODS FROM 1"=400' SCALE AERIAL PHOTOGRAPHY FLOWN 05/10/93.
MAPPING COMPILED WITHOUT BENEFIT OF A FIELD EDIT.
AREAS OUTLINED AND NOTED INDICATE AREAS OF DOUBTFUL ACCURACY.

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
PRELIMINARY SITE ASSESSMENT

SHALLOW GROUNDWATER CONTOURS
ETE SANITATION AND LANDFILL SITE

ENGINEERING-SCIENCE
DESIGN • RESEARCH • PLANNING
290 ELWOOD DAVIS ROAD • LIVERPOOL, NEW YORK 13088 • 315/451-9560
OFFICES IN PRINCIPAL CITIES

ES

REVISED: 2/2/94
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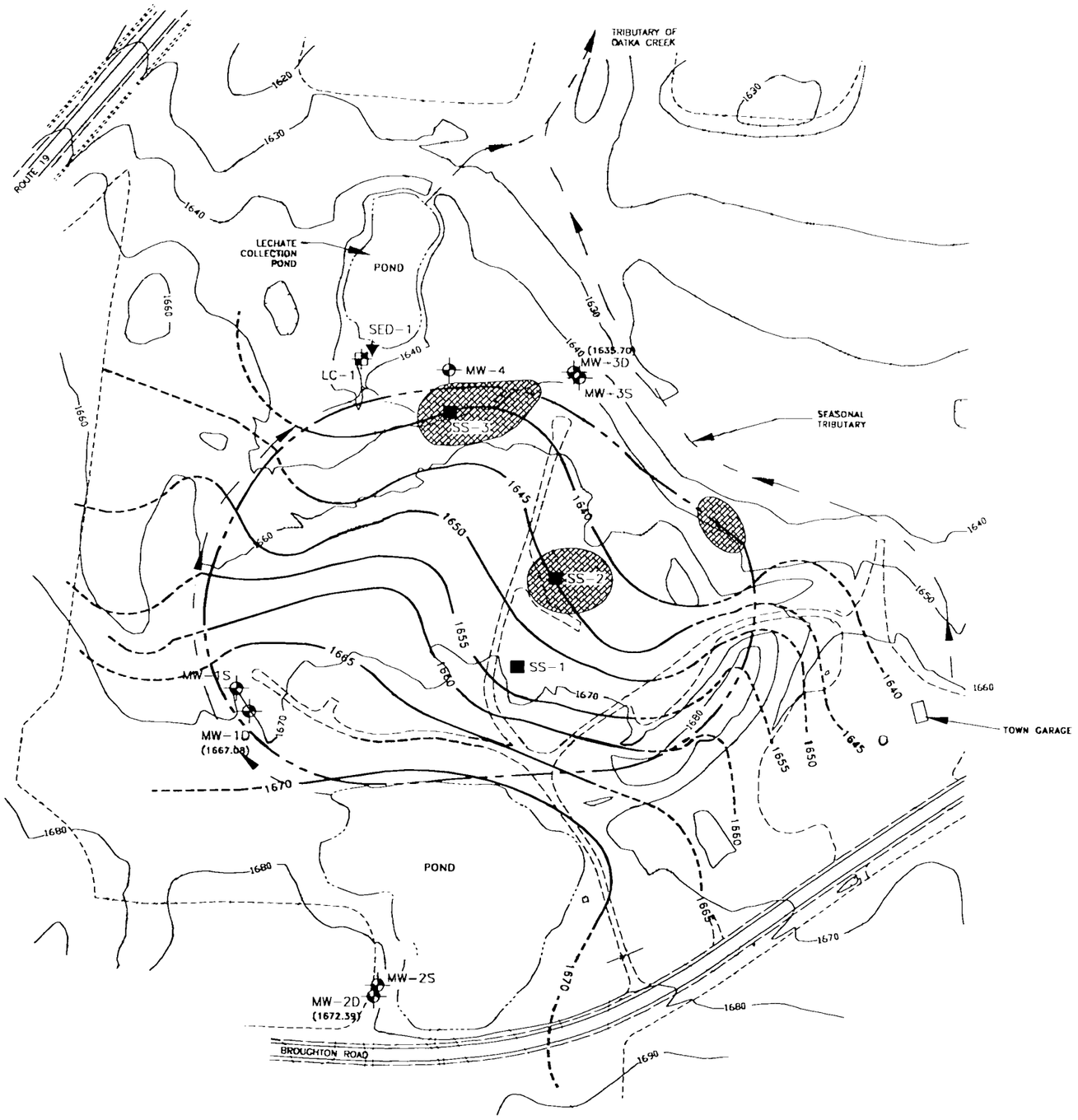

LEGEND

- APPROXIMATE LANDFILL BOUNDARY
- DRUM LOCATIONS
- DRAINAGE/TRIBUTARY
- MW-1D — MONITORING WELL
- SS-2 — SOIL SAMPLE
- LC-1 — LECHATE SAMPLE
- SED-1 — SEDIMENT SAMPLE
- 1670 — DEEP GROUNDWATER CONTOUR
- GROUNDWATER FLOW DIRECTION

CONTOUR INTERVALS = 5 FEET

NOTE: TRIBUTARIES AND DRUM LOCATIONS ARE APPROXIMATE.

200' 100' 0 200'

Approximate Scale in Feet

CONTOUR INTERVAL: 10'
MAPPING COMPILED BY STEREOPHOTOGRAMMETRIC METHODS FROM 1"=400' SCALE AERIAL PHOTOGRAPHY FLOWN 05/10/93.
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TABLE 4.1
GRAIN SIZE CHARACTERISTICS
ETE SANITATION AND LANDFILL SITE
GAINESVILLE, NEW YORK

WELL BORING NUMBER	SAMPLE DEPTH (FEET)	GRAVEL (%)	SAND (%)	SILT & CLAY (%)	UNIFIED SOIL CLASS	MATERIAL DESCRIPTION
MW – 1 S	10 – 14	0.0	4.8	95.2	ML or CL	SILT AND CLAY
MW – 2 S	14 – 18	5.2	15.0	79.8	ML or CL	SANDY SILT AND CLAY
MW – 3 S	8 – 10	0.0	44.5	55.5	ML or CL	SANDY SILT AND CLAY
MW – 4 S	10 – 14	9.7	34.9	55.4	ML or CL	SANDY SILT AND CLAY

KEL\PSAB\GRAINET

TABLE 4.2
GROUNDWATER ELEVATION SUMMARY
ETE SANITATION AND LANDFILL SITE
GAINESVILLE, NEW YORK

WELL I.D.	TOP OF PVC CASING ELEVATION (feet)	GROUND SURFACE ELEVATION (feet)	WELL SCREEN INTERVAL ELEVATION (feet)	DATE: 4/9/93			DATE: 4/20/93			DATE: 5/10/93		
				DEPTH TO WATER (ft. below TOC)	DEPTH TO WATER (ft. BGS)	WATER LEVEL ELEVATION (feet)	DEPTH TO WATER (ft. below TOC)	DEPTH TO WATER (ft. BGS)	WATER LEVEL ELEVATION (feet)	DEPTH TO WATER (ft. below TOC)	DEPTH TO WATER (ft. BGS)	WATER LEVEL ELEVATION (feet)
MW-1S	1672.11	1669.7	1662.7 – 1652.7	4.3	1.89	1667.81	4.8	2.39	1667.31	5.4	2.99	1666.71
MW-1D	1672.18	1669.6	1637.1 – 1627.1	5.08	2.5	1667.10	5.1	2.52	1667.08	6.4	3.82	1665.78
MW-2S	1684.63	1681.9	1674.4 – 1664.4	10.79	8.06	1673.84	11.8	9.07	1672.83	12.1	9.37	1672.53
MW-2D	1684.29	1682.0	1644.5 – 1634.5	•	•	•	11.9	9.61	1672.39	13	10.71	1671.29
MW-3S	1648.9	1646.1	1638.6 – 1628.6	10.95	8.15	1637.95	11.9	9.1	1637.00	13	10.2	1635.90
MW-3D	1648.8	1646.1	1614.1 – 1604.1	12.68	9.98	1636.12	13.1	10.4	1635.70	14	11.3	1634.80
MW-4	1647.01	1643.8	1638.8 – 1628.8	4.23	1.02	1642.78	4.5	1.29	1642.51	5.2	1.99	1641.81

• WATER LEVEL NOT MEASURED -- WELL NEWLY-INSTALLED

KEL\PSAB\HDDEL.ETV09 - Sep - 93

TABLE 4.3

NYSDEC – PSA WORK ASSIGNMENTS
ETE SANITATION SITE
Recra Environmental, Inc.
SEDIMENT DATA SUMMARY

NYSDEC Hazardous Waste Codes	ORGANIC COMPOUNDS:	USEPA (1) HEALTH BASED STANDARD	FIELD ID: SAMPLED: UNITS	SD001 05/10/93
	VOLATILES			
F002	Methylene chloride	93,000	ug/kg	98 B
F003	Acetone	8,000,000	ug/kg	190 J
F005	2-Butanone	4,000,000	ug/kg	50 J
F005	Benzene	24,000	ug/kg	3 BJ
	Ethyl benzene	8,000,000	ug/kg	6 J
F003	Total Xylenes	200,000,000	ug/kg	17 J
	SEMI-VOLATILES			
U088	Diethyl phthalate	60,000,000	ug/kg	67 BJ
	Phenanthrene	NS	ug/kg	34 J
U120	Fluoranthene	3,000,000	ug/kg	39 J
	Pyrene	2,000,000	ug/kg	37 J
	PESTICIDES		ug/kg	
P059	Heptachlor	160	ug/kg	0.30 JP
	4,4'-DDE	2,100	ug/kg	0.83 J
U060	4,4'-DDD	2,900	ug/kg	1.0 J

NOTE: VOC concentrations for acetone, 2-butanone, and xylenes were flagged with "J" qualifiers during data assessment because surrogate toluene-d8 was outside of quality control limits. Laboratory re-analysis is not shown because of holding time exceedance.

(1) NYSDEC – Memorandum (11/16/92) – Determination of soil cleanup objectives and cleanup levels

Organic Data Qualifiers
- U – Indicates a compound was analyzed for but not detected.
- J – Indicates an estimated value.
- B – Indicates the analyte is found in the associated blank as well as in the sample.
- E – Indicates compounds whose concentrations exceed the calibration range of the GC/MS instrument.
- D – Indicates an analysis at a secondary dilution factor.
- P – Indicates a greater than 25% difference for detected concentrations between two GC columns for pesticide/Aroclor analytes.
- R – Indicates unuseable results.

TABLE 4.3 (CONT.)

NYSDEC – PSA WORK ASSIGNMENTS
ETE SANITATION SITE
Recra Environmental, Inc.
SEDIMENT DATA SUMMARY

NYSDEC Hazardous Waste Codes	INORGANIC COMPOUNDS	NATURAL [1] RANGE IN SOILS	FIELD ID: SAMPLED: UNITS	SD001 05/10/93
	Aluminum – Total	700–100,000	mg/kg	7670
D004	Arsenic – Total	0.1–73	mg/kg	7.6 SN
D005	Barium – Total	10–1,500	mg/kg	83.4
D006	Cadmium – Total	0.01–7 [2]	mg/kg	0.64 BN
	Calcium – Total	100–280,000	mg/kg	20500
D007	Chromium – Total	1–1,000	mg/kg	11.0
	Copper – Total	<1–700	mg/kg	21.7
	Iron – Total	100–>100,000	mg/kg	80500 E
D008	Lead – Total	<10–300	mg/kg	38.1 +*
	Magnesium – Total	50–50,000	mg/kg	4170
	Manganese – Total	<2–7,000	mg/kg	1340 EN
	Potassium – Total	50–37,000	mg/kg	954 B
	Sodium – Total	<500–500,000	mg/kg	11500
	Zinc – Total	<5–2,900	mg/kg	180 E
F007–F012	Cyanide – Total	ND	mg/kg	1.7*

[1] Schacklette, and Boergen, 1984.
[2] Booz, Allen, and Hamilton, 1983.
[ ] Indicates concentration exceeds naturally range.

Inorganic Data Qualifiers
B – Indicates a value greater than or equal to the instrument detection limit but less than the contract required detection limit.
E – Indicates a value estimated or not reported due to the presence of interference.
S – Indicates a value determined by Method of Standard Addition.
N – Indicates spike sample recovery is not within control limits.
* – Indicates duplicate analysis is not within control limits.
+ – Indicates the correlation coefficient for method of standard addition is less than 0.995.

TABLE 4.3 (CONT.)

NYSDEC – PSA WORK ASSIGNMENTS
ETE SANITATION SITE
Recra Environmental, Inc.
SEDIMENT DATA SUMMARY

NYSDEC Hazardous Waste Codes	INORGANIC COMPOUNDS:	REGULATORY LIMIT [1]	FIELD ID: SAMPLED: UNITS	SD001 05/10/93
	Aluminum – Dissolved	NS	ug/l	200 *
D005	Barium – Dissolved	100,000	ug/l	393
	Calcium – Dissolved	NS	ug/l	25100 BN
	Copper – Dissolved	NS	ug/l	13.2 B
	Iron – Dissolved	NS	ug/l	19000
	Magnesium – Dissolved	NS	ug/l	7270
	Manganese – Dissolved	NS	ug/l	11200 N*
	Nickel – Dissolved	NS	ug/l	117
	Potassium – Dissolved	NS	ug/l	4030 B
	Sodium – Dissolved	NS	ug/l	279000
	Zinc – Dissolved	NS	ug/l	53.1 *

[1] 6 NYCRR – Identification and Listing of Hazardous Wastes.

Inorganic Data Qualifiers
- B – Indicates a value greater than or equal to the instruments detection limit but less than the contract required detection limit.
- N – Indicates spike sample recovery is not within control limits.
- * – Indicates duplicate analysis is not within control limits.

TABLE 4.4

NYSDEC – PSA WORK ASSIGNMENT
ETE SANITATION SITE
Recra Environmental, Inc., A
LEACHATE DATA SUMMARY

NYSDEC Hazardous Waste Codes	ORGANIC COMPOUNDS:	NYSDEC [1] Class C Surface Water Standards	FIELD ID: SAMPLED: UNITS	LC001 05/11/93	LC001-RE 05/11/93
	VOLATILES				
	Chloroethane	NS	ug/l	9 J	–
F002	Methylene chloride	NS	ug/l	170 B	–
F003	Acetone	NS	ug/l	260 B	–
F005	2-Butanone	NS	ug/l	600 B	–
U161	4-Methyl-2-pentanone	NS	ug/l	59	–
F005	Toluene	NS	ug/l	23 J	–
	Ethyl benzene	NS	ug/l	79	–
F003	Total Xylenes	NS	ug/l	210	–
	SEMI-VOLATILES				
	Isophorone	NS	ug/l	10 U	1 J
U101	2,4-Dimethylphenol	NS	ug/l	9 J	8 J
U165	Naphthalene	NS	ug/l	28	27
	4-Chloro-3-methylphenol	NS	ug/l	8 J	8 J
	2-Methylnaphthalene	NS	ug/l	22	22
	Acenaphthene	NS	ug/l	8 J	8 J
U088	Diethyl phthalate	NS	ug/l	9 J	9 J
	Fluorene	NS	ug/l	2 J	2 J
	Phenanthrene	NS	ug/l	0.9 J	1 J
	Anthracene	NS	ug/l	0.9 J	10 U
	Carbazole	NS	ug/l	2 J	2 J
	Di-n-butyl phthalate	NS	ug/l	0.6 J	0.7 J
U063	Dibenzofuran	NS	ug/l	5 J	5 J
	PESTICIDES				
U129	gamma-BHC (Lindane)	0.01 [2]	ug/l	0.0043 JP	–
	gamma-Chlordane	0.002 [2]	ug/l	0.017 JP	–

(1) NYSDEC – Ambient Water Quality Standards and Guidance Values (10/01/93)
(S) – Standard
(G) – Guidance
* – Standard is Hardness Dependant (assume hardness of 150 ppm)
(2) Standard/guidance value applies to the sum of isomers for the compound; applies to aquatic life.
[ ] Indicates concentration exceeds standard/guidance value.

Organic Data Qualifiers
U – Indicates a compound was analyzed for but not detected.
J – Indicates an estimated value.
B – Indicates the analyte is found in the associated blank as well as in the sample.
P – Indicates a greater than 25% difference for detected concentrations between two GC columns for pesticide/Aroclor analytes.

TABLE 4.4 (CONT.)

NYSDEC – PSA WORK ASSIGNMENT
ETE SANITATION SITE
Recra Environmental, Inc.
LEACHATE DATA SUMMARY

NYSDEC Hazardous Waste Codes	INORGANIC COMPOUNDS:	NYSDEC [1] Class C Surface Water Standards	FIELD ID: SAMPLED: UNITS	LC001 05/11/93
	Aluminum – Total	NS	ug/l	3,650 N
D004	Arsenic – Total	190 (S) [3]	ug/l	5.0 B
D005	Barium – Total	NS	ug/l	1,700
	Calcium – Total	NS	ug/l	305,000 B
	Copper – Total	16.7 (S) [2], [3]	ug/l	19.2B
	Iron – Total	300 (S)	ug/l	201,000*
	Magnesium – Total	NS	ug/l	52,700
	Manganese – Total	NS	ug/l	4,000 N*
	Potassium – Total	NS	ug/l	70,100
	Silver – Total	NS	ug/l	0.20 BW
	Sodium – Total	NS	ug/l	7,970,000
	Zinc – Total	30 (S) [3]	ug/l	153
F007–F012	Cyanide – Total	5.2 (S) [4]	ug/l	13.6

(1) NYSDEC – Ambient Water Quality Standards and Guidance Values (10/01/93)
(S) – Standard
(G) – Guidance
(2) – Standard is Hardness Dependant (assume hardness of 150 ppm)
(3) Standard/guidance value applies to aquatic life.
(4) Standard/guidance value applies to free CN and aquatic life.
[ ] Indicates exceedance of standard/guidance value.

Inorganic Data Qualifiers
B – Indicates a value greater than or equal to the instruments detection limit but less than the contract required detection limit.
N – Indicates spike sample recovery is not within control limits.
* – Indicates duplicate analysis is not within control limits.
W – Post digestion spike for Furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance.

TABLE 4.5

NYSDEC – PSA WORK ASSIGNMENTS
ETE SANITATION SITE
Recra Environmental, Inc., A
SURFACE SOIL DATA SUMMARY

NYSDEC Hazardous Waste Codes	ORGANIC COMPOUNDS:	USEPA [1] HEALTH BASED STANDARD	FIELD ID: SAMPLED: UNITS	SS001 05/10/93	SS002 05/10/93	SS003 05/10/93	SS004 [2] 05/10/93	SS004-RE 05/10/93
	VOLATILES							
F002	Methylene chloride	93,000	ug/kg	10 BJ	140 B	95 B	90 B	65 B
F003	Acetone	8,000,000	ug/kg	18	65	8 BJ	14 BJ	15 BJ
F005	2-Butanone	4,000,000	ug/kg	15 J	9 BJ	5 BJ	12 BJ	12 BJ
F005	Benzene	24,000	ug/kg	2 BJ	11 U	12 U	19 U	19 U
	SEMI-VOLATILES							
U165	Naphthalene	300,000	ug/kg	29 J	400 U	370 U	620 U	-
U088	Diethyl phthalate	60,000,000	ug/kg	40 BJ	34 BJ	33 BJ	65 BJ	-
	Phenanthrene	NS	ug/kg	78 J	400 U	27 J	110 J	-
U120	Fluoranthene	3,000,000	ug/kg	140 J	400 U	33 J	210 J	-
	Pyrene	2,000,000	ug/kg	110 J	400 U	39 J	200 J	-
	Butyl benzyl phthalate	20,000,000	ug/kg	530 U	400 U	40 J	620 U	-
U018	Benzo(a)anthracene	220	ug/kg	57 J	400 U	370 U	84 J	-
U050	Chrysene	NS	ug/kg	71 J	400 U	370 U	100 J	-
U028	Bis(2-ethylhexyl) phthalate	50,000	ug/kg	530 U	400 U	180 J	620 U	-
	Benzo(b)fluoranthene	NS	ug/kg	76 J	400 U	370 U	110 J	-
	Benzo(k)fluoranthene	NS	ug/kg	52 J	400 U	370 U	80 J	-
U022	Benzo(a)pyrene	61	ug/kg	40 J	400 U	370 U	58 J	-
U137	Indeno(1,2,3-cd)pyrene	NS	ug/kg	34 J	400 U	370 U	53 J	-
	Benzo(ghi)perylene	NS	ug/kg	32 J	400 U	370 U	58 J	-
	PESTICIDES							
	delta-BHC	NS	ug/kg	2.7 U	1.9 U	2.0 U	0.51 JP	-
P004	Aldrin	41	ug/kg	0.41 JP	1.9 U	2.0 U	3.2 U	-
P050	Endosulfan I	NS	ug/kg	2.7 U	1.9 U	2.5	3.2 U	-
P037	Dieldrin	440	ug/kg	2.3 JP	3.7 U	0.58 JP	1.7 JP	-
P050	Endosulfan II	NS	ug/kg	5.3 U	3.7 U	30 P	6.2 U	-
U060	4,4'-DDD	2,900	ug/kg	1.0 JP	3.7 U	4.0 U	6.2 U	-
	Endosulfan Sulfate	NS	ug/kg	0.91 J	0.55 JP	12	6.2 U	-
	alpha-Chlordane	540	ug/kg	2.7 U	1.9 U	2.2 P	3.2 U	-
	gamma-Chlordane	540	ug/kg	0.47 J	1.9 U	2.0 U	3.2 U	-
	PCBS							
B007	Aroclor 1260	1,000	ug/kg	71 P	37 U	40 U	73 P	-

(1) NYSDEC - Memorandum (11/16/92) - Determination of soil cleanup objectives and cleanup levels
(2) Duplicate for SS001.
Organic Data Qualifiers
U - Indicates a compound was analyzed for but not detected.
J - Indicates an estimated value.
B - Indicates the analyte is found in the associated blank as well as in the sample.
P - Indicates a greater than 25% difference for detected concentrations between two GC columns for pesticide/Aroclor analytes.

TABLE 4.5 (CONT.)

NYSDEC – PSA WORK ASSIGNMENTS
ETE SANITATION SITE
Recra Environmental, Inc., A
SURFACE SOIL DATA SUMMARY

NYSDEC Hazardous Waste Codes	INORGANIC COMPOUNDS:	NATURAL [1] RANGE IN SOILS	FIELD ID: SAMPLED: UNITS	SS001 05/10/93	SS002 05/10/93	SS003 05/10/93
	Aluminum – Total	700–100,000	mg/kg	8040	7880	8290
D004	Arsenic – Total	0.1–73	mg/kg	10 SN	5.9 N	7.1 N
D005	Barium – Total	10–1,500	mg/kg	90.6	37.6 B	38.1 B
D006	Cadmium – Total	0.01–7 [2]	mg/kg	0.69 BN	0.31 BN	0.75 BN
	Calcium – Total	100–280,000	mg/kg	16500	22600	18100
D007	Chromium – Total	1–1,000	mg/kg	11.6	11.6	14.4
	Cobalt – Total	<3–70	mg/kg	6.7 U	8.1 B	6.3 U
	Copper – Total	<1–700	mg/kg	24.1	20.9	27.6
	Iron – Total	100–>100,000	mg/kg	61400 E	19100 E	20700 E
D008	Lead – Total	<10–300	mg/kg	63.6 +*	48.6 +*	31.1 *
	Magnesium – Total	50–50,000	mg/kg	5110	6850	6980
	Manganese – Total	<2–7,000	mg/kg	477 EN	548 EN	442 EN
	Nickel – Total	<5–700	mg/kg	16.1	20.2	33.7
	Potassium – Total	<2–7,000	mg/kg	1190 B	1090 B	1040 B
	Sodium – Total	50–37,000	mg/kg	506 B	205 B	253 U
	Vanadium – Total	<7–300	mg/kg	16.1 B	14.2	14.6 B
	Zinc – Total	<5–2,900	mg/kg	171 E	79.2 E	377 E
F007–F012	Cyanide – Total	ND	mg/kg	2.1 U*	4.3 *	2.5 *

[1] Schacklette, and Boergen, 1984.
[2] Booz, Allen, and Hamilton, 1983.

Inorganic Data Qualifiers
- B – Indicates a value greater than or equal to the instrument's detection limit but less than the contract required detection limit.
- U – Indicates element was analyzed for but not detected.
- E – Indicates a value estimated or not reported due to the presence of interference.
- S – Indicates a value determined by Method of Standard Addition.
- N – Indicates spike sample recovery is not within control limits.
- * – Indicates duplicate analysis is not within control limits.
- + – Indicates the correlation coefficient for method of standard addition is less than 0.995.

TABLE 4.5 (CONT.)

NYSDEC – PSA WORK ASSIGNMENTS
ETE SANITATION SITE
Recra Environmental, Inc., A
SURFACE SOIL DATA SUMMARY

NYSDEC Hazardous Waste Codes	INORGANIC COMPOUNDS:	MCL [1]	FIELD ID: SAMPLED: UNITS	SS001 05/10/93	SS003 05/10/93	SS004 05/10/93
	Aluminum – Dissolved	NS	ug/l	200 U*	410 *	240 *
D006	Cadmium – Dissolved	1,000	ug/l	0.40 BN	1.2 BN	0.70 BN
	Calcium – Dissolved	NS	ug/l	119000 BN	91000	85800
	Iron – Dissolved	NS	ug/l	450	70.0 U	190
	Magnesium – Dissolved	NS	ug/l	9450	14000	16200
	Manganese – Dissolved	NS	ug/l	782 N*	847 N*	725 N*
	Nickel – Dissolved	NS	ug/l	30.0 U	30.0 U	32.0 B
	Potassium – Dissolved	NS	ug/l	1510 B	4360 B	1200 B
	Sodium – Dissolved	NS	ug/l	10100	800 U	3980 B
	Zinc – Dissolved	NS	ug/l	31.5 *	259 *	77.0 *

(1) 6 NYCRR – Identification and Listing of Hazardous Wastes.

Inorganic Data Qualifiers
- B – Indicates a value greater than or equal to the instruments detection limit but less than the contract required detection limit.
- U – Indicates element was analyzed for but not detected.
- N – Indicates spike sample recovery is not within control limits.
- * – Indicates duplicate analysis is not within control limits.

TABLE 4.6

NYSDEC – PSA WORK ASSIGNMENT
ETE SANITATION SITE
Recra Environmental, Inc., A
SUB-SURFACE DATA SUMMARY

NYSDEC Hazardous Waste Codes	ORGANIC COMPOUNDS:	USEPA [1] HEALTH BASED STANDARD	FIELD ID: DEPTH: SAMPLED:	SSMW1-S 4-10' 03/24/93	SSMW2-S 2-22' [2] 04/06/93	SSMW3-D 71-75' 04/06/93	SSB3 [3] 71-75' 04/06/93	SSMW4 2-6' 03/24/93
	VOLATILES							
F002	Methylene chloride	93,000	ug/kg	12 B	10 BJ	14 B	12 B	14 B
F003	Acetone	8,000,000	ug/kg	19	19	10 J	14	16
P022	Carbon Disulfide	8,000,000	ug/kg	12 U	1 J	11 U	6 J	12 U
F005	2-Butanone	4,000,000	ug/kg	12 U	5 J	11 U	11 U	12 U
F005	Benzene	24,000	ug/kg	12 U	1 J	11 U	11 U	12 U
F005	Toluene	20,000,000	ug/kg	12 U	12 U	11 U	1 J	12 U
	SEMI-VOLATILES							
	Bis(2-chloroethyl) ether	NS	ug/kg	400 U	120 J	380 U	370 U	380 U
	Di-n-butyl phthalate	8,000,000	ug/kg	210 J	390 U	380 U	370 U	110 J
U028	Bis(2-ethylhexyl) phthalate	50,000	ug/kg	48 J	390 U	380 U	370 U	380 U
	PESTICIDES							
P004	Aldrin	41	ug/kg	2 U	2 U	2 U	0.21 JP	2 U
P050	Endosulfan II	NS	ug/kg	40 U	1.2 JP	3.8 U	3.7 U	38 U

(1) NYSDEC – Memorandum (11/18/92) – Determination of soil cleanup objectives and cleanup levels
(2) VOCs collected from 6'-22'.
(3) Duplicate for SSMW3-D

Organic Data Qualifiers
U – Indicates a compound was analyzed for but not detected.
J – Indicates an estimated value.
B – Indicates the analyte is found in the associated blank as well as in the sample.
P – Indicates a greater than 25% difference for detected concentrations between two GC columns for pesticide/Aroclor analytes.

TABLE 4.6 (CONT.)

NYSDEC – PSA WORK ASSIGNMENT
ETE SANITATION SITE
Recra Environmental, Inc., A
SUB–SURFACE DATA SUMMARY

NYSDEC Hazardous Waste Codes	INORGANIC COMPOUNDS:	NATURAL [1] RANGE IN SOILS	FIELD ID: DEPTH: SAMPLED:	SSMW1–S 4–10' 03/24/93	SSMW2–S 2–22' 04/06/93	SSMW3–D 71–75' 04/06/93	SSB3 [3] 71–75' 04/06/93	SSMW4 2–6' 03/24/93
	Aluminum – Total	700–>100,000	mg/kg	8870	9380	12100	–	6120
D004	Arsenic – Total	0.1–73	mg/kg	7.7	8.2	9.1	–	5.9
D005	Barium – Total	10–1,500	mg/kg	34.5 B	32.1 B	69.7	–	26.2 B
D006	Cadmium – Total	0.01–7 [2]	mg/kg	0.37 B	0.42 B+N	0.16 BN	–	0.46 BS
	Calcium – Total	100–280,000	mg/kg	19500	13400 *	34100 *	–	16800
D007	Chromium – Total	1–1,000	mg/kg	13.3	12.1 *	17.4 *	–	10
	Cobalt – Total	<3–70	mg/kg	7.7 B	8.3 BN	10 BN	–	5.7 B
	Copper – Total	<1–700	mg/kg	24.1	18.8 N*	28.7 N*	–	18.7
	Iron – Total	100–>100,000	mg/kg	23700	21100 *	27100 *	–	16800
D008	Lead – Total	<10–300	mg/kg	18.8 S	12.1	19.2 S	–	9.3
	Magnesium – Total	50–50,000	mg/kg	8510	5880	11600	–	6080
	Manganese – Total	<2–7,000	mg/kg	524	450 N	462 N	–	552
	Nickel – Total	<5–7,000	mg/kg	24.5	22.9 N	33.4 N	–	17.1
	Potassium – Total	50–37,000	mg/kg	927 B	1170	2120	–	720 B
	Sodium – Total	<500–500,000	mg/kg	182 U	215 B	261 B	–	810 B
	Vanadium – Total	<7–300	mg/kg	16.8	15.4	19.9	–	11.7
	Zinc – Total	<5–2,900	mg/kg	95.5	98.3 N	75.8 N	–	74.6

[1] Schacklette, and Boergen, 1984.
[2] Booz, Allen, and Hamilton, 1983.
[3] Duplicate for SSMW3–D.

Inorganic Data Qualifiers

B – Indicates a value greater than or equal to the instrument detection limit but less than the contract required detection limit.
U – Indicates element was analyzed for but not detected.
S – Indicates a value determined by Method of Standard Addition.
N – Indicates spike sample recovery is not within control limits.
* – Indicates duplicate analysis is not within control limits.
+ – Indicates the correlation coefficient for method of standard addition is less than 0.995.

TABLE 4.7

NYSDEC – PSA WORK ASSIGNMENT
ETE SANITATION SITE
Recra Environmental, Inc., A
GROUNDWATER DATA SUMMARY

NYSDEC Hazardous Waste Codes	ORGANIC COMPOUNDS:	NYSDEC (1) Class GA Water Quality Standards	FIELD ID: SAMPLED: UNITS	GW01-D 05/10/93	GW01-S 05/10/93	GW02-D 05/11/93	GW02-DRE 05/11/93	GW02-S 05/11/93	GW03-S 05/11/93	GW03-D 05/11/93	GW004 05/11/93	GW005 (2) 05/10/93
	VOLATILES											
K020	Vinyl chloride	2 (S)	ug/l	10 U	10 U	10 U	10 U	10 U	21	10 U	10 U	10 U
	Chloroethane	5 (S)	ug/l	10 U	10 U	10 U	10 U	10 U	67	7J	10 U	10 U
F002	Methylene chloride	5 (S)	ug/l	35 B	3 BJ	24 B	6 BJ	26 B	25 B	4 BJ	21 B	23 B
F003	Acetone	50 (S)	ug/l	23 B	10 U	15 B	10 U	14 B	15 B	25 B	12 B	14 B
	1,1-Dichloroethane	5 (S)	ug/l	10 U	10 U	10 U	10 U	10 U	2 J	10 U	1 J	10 U
U079	1,2-Dichloroethene (Total)	5 (S)	ug/l	10 U	10 U	10 U	10 U	10 U	150	5J	1 J	10 U
	1,2-Dichloroethane	5 (S)	ug/l	10 U	10 U	10 U	10 U	10 U	1 J	10 U	3 J	10 U
F005	2-Butanone	50 (S)	ug/l	15 B	9 BJ	12 B	10 U	12 B	13 B	14 B	13 B	13 B
F001	Trichloroethene	5 (S)	ug/l	10 U	10 U	10 U	10 U	10 U	54	10 U	10 U	10 U
F005	Benzene	0.7 (S)	ug/l	10 U	10 U	10 U	10 U	10 U	10 U	10 U	2J	10 U

(1) NYSDEC – Ambient Water Quality Standards and Guidance Values (10/01/93)
(S) – Standard
(G) – Guidance
(2) Duplicate for GW01-S.
[ ] Indicates exceedance of standard/guidance value.

Organic Data Qualifiers
U – Indicates a compound was analyzed for but not detected.
J – Indicates an estimated value.
B – Indicates the analyte is found in the associated blank as well as in the sample.

TABLE 4.7 (CONT.)

NYSDEC – PSA WORK ASSIGNMENT
ETE SANITATION SITE
Recra Environmental, Inc., A
GROUNDWATER DATA SUMMARY

NYSDEC Hazardous Waste Codes	INORGANIC COMPOUNDS:	NYSDEC (1) Class GA Water Quality Standards	FIELD ID: SAMPLED: UNITS	GW01-D 05/10/93	GW01-S 05/10/93	GW02-D 05/11/93	GW02-S 05/11/93	GW03-S 05/11/93	GW03-D 05/11/93	GW004 05/11/93
	Aluminum – Total	NS	ug/l	3740 N	6800 N	285 N	21600 N	2050 N	5630 N	8380 N
D004	Arsenic – Total	25 (S)	ug/l	6.0 B	4.0 U	4.0 U	13.0	4.0 UW	7.0 B	12.0
D005	Barium – Total	1000 (S)	ug/l	183 B	87.7 B	87.3 B	201	159 B	1240	550
D006	Cadmium – Total	10 (S)	ug/l	0.20 BN	0.40 BN	0.20 BN	0.70 BN	0.50 BN	1.0 B	3.0 BSN
	Calcium – Total	NS	ug/l	86,600	72,800	50,600	146,000 B	135,000 B	295,000 B	282,000 B
D007	Chromium – Total	50 (S)	ug/l	10 U*	10 U*	10 U*	27.0 *	10 U*	13.8 *	27.8 *
	Cobalt – Total	NS	ug/l	20.0 U	20.0 U	20.0 U	25.4 B	20.0 U	20.0 U	20.0 U
	Copper – Total	200 (S)	ug/l	11.3 B	22.2 B	10 U	56.7	12.7 B	20.8 B	34.9
	Iron – Total	300 (S)	ug/l	12,800*	15,300*	358*	43,900*	4120*	14,000*	20,400*
D008	Lead – Total	25 (S)	ug/l	4.0 N	7.0 N	3.0 UN	31.0N	3.0 UWN	5.0 N	6.0 UEN
	Magnesium – Total	35000 (G)	ug/l	19,600	26,800	15,900	38,000	31,300	91,500	79,700
	Manganese – Total	300 (S)	ug/l	522N*	450N*	68.6 N*	1280N*	4010N*	3840	13,000N*
	Nickel – Total	NS	ug/l	30.0 U	30.0 U	30.0 U	48.9	49.9	56.2	183
	Potassium – Total	NS	ug/l	3850 B	2940 B	3830 B	7080	20800	24,400	80,300
D011	Silver – Total	50 (S)	ug/l	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 u	0.40 BW
	Sodium – Total	20000 (S)	ug/l	52,200	6680	10,900	25,000	270,000	1,170,000	2,880,000
	Vanadium – Total	NS	ug/l	20.0 U	20.0 U	20.0 U	38.8 B	20.0 U	20.0 U	20.0 U
	Zinc – Total	300 (S)	ug/l	38.1	82.8	21.4	410	35.8	126	499
F007-F012	Cyanide – Total	100 (S)	ug/l	10 U	10 U	10 U	10 U	10 U	13.8	12.9

(1) NYSDEC – Ambient Water Quality Standards and Guidance Values (10/03/93)
(S) – Standard
(G) – Guidance
[ ] Indicates exceedance of standard/guidance value.

Inorganic Data Qualifiers
B – Indicates a value greater than or equal to the instrument's detection limit but less than the contract required detection limit.
U – Indicates element was analyzed for but not detected.
E – Indicates a value estimated or not reported due to the presence of interference.
S – Indicates a value determined by Method of Standard Addition.
N – Indicates spike sample recovery is not within control limits.
* – Indicates duplicate analysis is not within control limits.

SECTION 5

RECOMMENDATIONS

5.1 RECOMMENDED SITE CLASSIFICATION

Analytical data collected during this investigation indicate that hazardous wastes have been disposed on-site. Analytical data also indicate that the hazardous waste disposed on site does not present a significant threat to public health or environment. These two factors alone would qualify the site as a Class 3 site. However, the analytical data (exceedance of groundwater standards by chlorinated organics) also indicate that on-site hazardous substances are resulting in conditions that would warrant the determination of significant threat if the source could be determined to be a hazardous waste, as defined by 6NYCRR 371. Although the results of this PSA investigation indicate a reclassification to a Class 2 site is warranted, the required documentation obtained to date is insufficient to completely justify this action.

5.2 FUTURE WORK

ES recommends conducting a limited drum sampling effort to identify ignitable wastes and to identify the components of the ignitable wastes in an attempt to establish a correlation between hazardous waste disposed on-site and chlorinated organic groundwater exceedances, thus establishing a significant threat to public health or environment from hazardous wastes.

The drum sampling effort should include removal, overpacking, sampling, and disposal of partially-buried drums. Additional sampling of wells may also be warranted to assist in determination of significant threat, if any. Laboratory analysis should include, at a minimum, analysis for characteristics of ignitability, characteristics of toxicity (EP Tox metals) (primarily to address the potential for lead), TCL VOCs (for determination of significant threat), and TCLP (for drum disposal).

SECTION 6

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APPENDIX A

SITE INSPECTION REPORT

USEPA FORM 2070-13

E P A	Potential Hazardous Waste Site Site Inspection Report Part 1 - Site Location and Inspection Information	I. Identification 01 State NY 02 Site Number *961005*

II. Site Name and Location

01 Site Name (Legal, common, or descriptive name of site): *ETE Sanitation and Landfill*

02 Street, Route No. or Specific Location Identifier: *Broughton Road*

03 City	04 State	05 Zip Code	06 County	07 County Code	08 CONG Dist
Town of Gainesville	*NY*	*14066*	*Wyoming*		

09 Coordinates
Latitude: *42° 39' 28" N*
Longitude: *78° 07' 36" E*

10 Type of Ownership (Check one)
x A. Private __ B. Federal _____ __ C. State
__ D. County
__ E. Municipal __ F. Other_____ __ G. Unknown

III. Inspection Information

01 Date of Inspection: *10/29/92* (Month/Day/Year)

02 Site Status: __ Active *x* Inactive

03 Years of Operation: *1974 / 1979* (Beginning Year / Ending Year) __ Unknown

04 Agency Performing Inspection (Check all that apply)

__ A. EPA __ B. EPA Contractor_____ (Name of Firm) __ C. Municipal __ D. Municipal Contractor _____ (Name of Firm)

__ E. State *x* F. State Contractor *Engineering-Science Inc.* (Name of Firm) G. Other _____ (Specify)

05 Chief Inspector	06 Title	07 Organization	08 Telephone No.
Mark J. Schumacher	*Hydrogeologist*	*Engineering-Science, Inc.*	*(315) 451-9560*

09 Other Inspectors	10 Title	11 Organization	12 Telephone No.
Nicholas A. Smith	*Geologist*	*Engineering-Science, Inc.*	*(315) 451-9560*

13 Site Representatives Interviewed	14 Title	15 Address	16 Telephone No.

17 Access Gained By (Check One)	18 Time of Inspection	19 Weather Conditions
x Permission __ Warrant	*13:50 a.m.*	*55° Cloudy*

IV. Information Available From

01 Contact	02 OF (Agency/Organization)	03 Telephone No.
Carl Hoffman	*NYSDEC*	*(518) 457-9538*

04 Person Responsible For Site Inspection Form	05 Agency	06 Organization	07 Telephone No.	08 Date
Tom Abrams		*Engineering-Science*	*(315) 451-9560*	*9/7/93*

EPA	Potential Hazardous Waste Site Site Inspection Report Part 2 - Waste Information	I. Identification 01 State 02 Site Number NY 961005

II. Waste States, Quantities, and Characteristics

01 Physical States (Check all that apply)

- X A. Solid
- ___ B. Powder, Fines
- x C. Sludge
- ___ D. Other *Unknown* (Specify)
- ___ E. Slurry
- x F. Liquid
- ___ G. Gas

02 Waste Quantity At Site (Measures of waste quantities must be independent)

- Tons *Unknown*
- Cubic Yards ___
- No. of Drums ___

03 Waste Characteristics (Check all that apply)

- x A. Toxic
- ___ B. Corrosive
- ___ C. Radioactive
- x D. Persistent
- ___ E. Soluble
- ___ F. Infectious
- ___ G. Flammable
- X H. Ignitable
- ___ I. Highly Volatile
- ___ J. Explosive
- ___ K. Reactive
- ___ L. Incompatible
- ___ M. Not Applicable
- ___ Unknown

III. Waste Type

Category	Substance Name	01 Gross Amount	02 Unit of Measure	03 Comments
SLU	*Sludge*	*150*	*tons*	*leaded paint sludge*
OLW	*Oily Waste*			
SOL	*Solvents -*	*Unknown*		*chlorinated solvents*
PSD	*Pesticides*			
OCC	*Other Organic Chemicals*	*Unknown*		*drum labeled "cholorothene-V6"*
IOC	*Inorganic Chemicals*	*Unknown*		*salt*
ACD	*Acids*			
BAS	*Bases*			
MES	*Heavy Metals*	*Unknown*		*lead detected in on-site drum in exceedence of EP Tox standard*

IV. Hazardous Substances (See Appendix For Most Frequently Cited CAS Numbers)

01 Category	02 Substance Name	03 CAS Number	04 Storage/ Disposal Method	05 Concentration	06 Measure of Concentration
See attached.					

V. Feedstocks (See Appendix For CAS Numbers)

Category	01 Feedstock Name	02 CAS Number	Category	01 Feedstock Name	02 CAS Number
N/A					

VI. Sources of Information (Cite Specific References, e.g., state files, sample analysis reports)

Preliminary Site Assessment Report, ETE Sanitation and Landfill Site, Engineering-Science, Inc., October 1993.

IV. HAZARDOUS SUBSTANCES (See Appendix for most frequently used CAS numbers).

01 CATEGORY	02 SUBSTANCE NAME	03 CAS #	04 STORAGE/DISPOSAL METHOD	05 MAXIMUM CONCENTRATION		06 MEASURE OF CONCENTRATION
Sediment	Sodium - Total	7440-23-5	unknown	1E+07		UG/KG
Subsurface Soil	Potassium - Total	7440-09-7	unknown	2120000		UG/KG
Subsurface Soil	Cobalt - Total	7440-48-4	unknown	10000	BN	UG/KG
Subsurface Soil	Chromium - Total	7440-47-3	unknown	17400	*	UG/KG
Surface Soil	Cadmium - Total	7440-43-9	unknown	750	BN	UG/KG
Surface Soil	Barium - Total	7440-39-3	unknown	90600		UG/KG
Surface Soil	Arsenic - Total	7440-38-2	unknown	10000	SN	UG/KG
Subsurface Soil	Vanadium - Total	7440-62-2	unknown	19900		UG/KG
Groundwater	Silver - Total	7440-22-4	unknown	0.4	BW	UG/L
Surface Soil	Zinc - Total	7440-66-6	unknown	377000	E	UG/KG
Surface Soil	Nickel - Total	7440-02-0	unknown	33700		UG/KG
Sediment	Manganese - Total	7439-96-5	unknown	1340000	EN	UG/KG
Subsurface Soil	Magnesium - Total	7439-95-4	unknown	1E+07		UG/KG
Surface Soil	Lead - Total	7439-92-1	unknown	63600	+*	UG/KG
Sediment	Iron - Total	7439-89-6	unknown	8E+07	E	UG/KG
Surface Soil	Copper - Total	7440-50-8	unknown	27600		UG/KG
Sediment	4,4'-DDE	72-55-9	unknown	0.83	J	UG/KG
Surface Soil	Phenanthrene	85-01-8	unknown	110	J	UG/KG
Leachate	Acenaphthene	83-32-9	unknown	6	J	UG/L
Leachate	2-Methylnaphthalene	91-57-6	unknown	22		UG/L
Surface Soil	Naphthalene	91-20-3	unknown	29	J	UG/KG
Leachate	Carbazole	86-74-8	unknown	2	J	UG/L
Leachate	Fluorene	86-73-7	unknown	2	J	UG/L
Surface Soil	Butyl benzyl phthalate	85-68-7	unknown	40	J	UG/KG
Subsurface Soil	Aluminum - Total	7429-90-5	unknown	1E+07		UG/KG
Subsurface Soil	Di-n-butyl phthalate	84-74-2	unknown	210	J	UG/KG
Subsurface Soil	Calcium - Total	7440-70-2	unknown	3E+07	*	UG/KG
Sediment	Heptachlor	76-44-8	unknown	0.3	JP	UG/KG
Subsurface Soil	Carbon Disulfide	75-15-0	unknown	1	J	UG/KG
Leachate	Methylene chloride	75-09-2	unknown	170	B	UG/L
Groundwater	Vinyl chloride	75-01-4	unknown	21		UG/L
Groundwater	Chloroethane	75-00-3	unknown	67		UG/L
Surface Soil	Endosulfan Sulfate	1031-07-8	unknown	12		UG/KG
Surface Soil	Endosulfan I	959-98-8	unknown	2.5		UG/KG
Surface Soil	Pyrene	129-00-0	unknown	200	J	UG/KG
Leachate	Anthracene	120-12-7	unknown	0.9	J	UG/L
Surface Soil	Benzo(k)fluoranthene	207-08-9	unknown	80	J	UG/KG
Surface Soil	Benzo(b)fluoranthene	205-99-2	unknown	110	J	UG/KG
Surface Soil	Indeno(1,2,3-cd)pyrene	193-39-5	unknown	53	J	UG/KG
Surface Soil	Benzo(ghi)perylene	191-24-2	unknown	58	J	UG/KG
Surface Soil	Aldrin	309-00-2	unknown	0.41	JP	UG/KG
Surface Soil	Fluoranthene	206-44-0	unknown	210	J	UG/KG
Surface Soil	Bis(2-ethylhexyl) phthalate	117-81-7	unknown	180	J	UG/KG
Surface Soil	Aroclor 1260	11096-82-5	unknown	73	P	UG/KG
Leachate	Toluene	108-88-3	unknown	23	J	UG/L
Leachate	2,4-Dimethylphenol	105-67-9	unknown	9	J	UG/L
Surface Soil	Chrysene	218-01-9	unknown	100	J	UG/KG
Surface Soil	4,4'-DDD	72-54-8	unknown	1	JP	UG/KG
Surface Soil	delta-BHC	319-86-8	unknown	0.51	JP	UG/KG
Surface Soil	Benzo(a)anthracene	56-55-3	unknown	84	J	UG/KG
Groundwater	1,2-Dichloroethene (Total)	540-59-0	unknown	150		UG/L
Leachate	4-Chloro-3-methylphenol	59-50-7	unknown	6	J	UG/L
Surface Soil	Dieldrin	60-57-1	unknown	2.3	JP	UG/KG
Surface Soil	Benzo(a)pyrene	50-32-8	unknown	59	J	UG/KG
Leachate	gamma-BHC (Lindane)	58-89-9	unknown	0.0043	JP	UG/L
Surface Soil	Endosulfan II	33213-65-9	unknown	30	P	UG/KG
Leachate	Dibenzofuran	53-70-3	unknown	5	J	UG/L
Surface Soil	gamma-Chlordane	5103-74-2	unknown	0.47	J	UG/KG
Leachate	Acetone	67-64-1	unknown	260	B	UG/L
Surface Soil	alpha-Chlordane	5103-71-9	unknown	2.2	P	UG/KG
Surface Soil	Cyanide - Total	57-12-5	unknown	4300	*	UG/KG
Groundwater	1,2-Dichloroethane	107-06-2	drum	3	J	UG/L
Leachate	4-Methyl-2-pentanone	108-10-1	drum	59		UG/L
Leachate	Isophorone	78-59-1	drum	1	J	UG/L
Subsurface Soil	Bis(2-chloroethyl) ether	111-44-4	drum	120	J	UG/KG
Groundwater	Trichloroethene	79-01-6	drum	54		UG/L
Leachate	2-Butanone	78-93-3	drum	600	B	UG/L
Groundwater	1,1-Dichloroethane	75-34-3	drum	2	J	UG/L
Leachate	Total Xylenes	1330-20-7	drum	210		UG/L
Sediment	Benzene	71-43-2	drum	3	BJ	UG/KG
Leachate	Ethyl benzene	100-41-4	drum	79		UG/L

EPA	Potential Hazardous Waste Site Site Inspection Report Part 3 - Description of Hazardous Conditions and Incidents	I. Identification 01 State 02 Site Number NY 961005

II. Hazardous Conditions and Incidents

01 _x_ A. Groundwater Contamination | 02 _x_ Observed (Date: 5/93) | __ Potential | __ Alleged
03 Population Potentially Affected: Unknown | 04 Narrative Description

VOCs and metals were detected in on-site wells.

---

01 _x_ B. Surface Water Contamination | 02 X Observed (Date: _____) | x Potential | __ Alleged
03 Population Potentially Affected: Unknown | 04 Narrative Description

Leachate drains to on-site leachate collection pond which discharges to a tributary to a tributary of Cotton Creek.

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

None reported.

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

None reported.

---

01 _x_ E. Direct Contact | 02 __ Observed (Date: _____) | X Potential | __ Alleged
03 Population Potentially Affected: Unknown | 04 Narrative Description

Site is accessible to pedestrians. Low levels of contamination were detected in leachate and surface soil samples.

---

01 _x_ F. Contamination of Soil | 02 _x_ Observed (Date: 5/93) | __ Potential | __ Alleged
03 Population Potentially Affected: Unknown | 04 Narrative Description

VOCs, SVOCs, pesticides, PCBs, and inorganics were detected in surface and subsurface soil samples.

---

01 _x_ G. Drinking Water Contamination | 02 __ Observed (Date: _____) | x Potential | __ Alleged
03 Population Potentially Affected: _____ | 04 Narrative Description

Drinking water well 0.5 miles upgradient of site. No contaminants were detected in the downgradient well (sampled 11/89.

---

01 __ H. Worker Exposure/Injury | 02 __ Observed (Date: _____) | __ Potential | __ Alleged
03 Population Potentially Affected: _____ | 04 Narrative Description

None reported.

---

01 _x_ I. Population Exposure/Injury | 02 __ Observed (Date: _____) | x Potential | __ Alleged
03 Population Potentially Affected: _____ | 04 Narrative Description

Population within 1 mile radius.

E P A	Potential Hazardous Waste Site Site Inspection Report Part 3 - Description of Hazardous Conditions and Incidents	I. Identification 01 State 02 Site Number NY 961005

II. Hazardous Conditions and Incidents (Continued)

01 _x_ J. Damage to Flora | 02 ___ Observed (Date: ____) | ___ Potential | _x_ Alleged
03 Population Potentially Affected: ____ | 04 Narrative Description

Mr. Broughton, adjacent property owner claims site contamination (salt) preventing crops from growing; stressed vegetation observed on-site.

---

01 ___ K. Damage to Fauna | 02 ___ Observed (Date: ____) | ___ Potential | ___ Alleged
03 Population Potentially Affected: ____ | 04 Narrative Description

None reported.

---

01 _x_ L. Contamination of Food Chain | 02 ___ Observed (Date: ____) | _x_ Potential | ___ Alleged
04 Narrative Description

---

01 _x_ M. Unstable Containment of Wastes (Spills/Runoff/Standing Liquids/Leading drums) | 02 _x_ Observed (Date: *10/30/92*) | ___ Potential | ___ Alleged
03 Population Potentially Affected: *Unknown* | 04 Narrative Description

Leachate seeps observed along the west and north edges of landfill. Site is reportedly not lined or capped.

---

01 _x_ N. Damage to Offsite Property | 02 _x_ Observed (Date: *10/30/92*) | ___ Potential | ___ Alleged
04 Narrative Description

Leachate discharges from site to property adjacent to north side of landfill, reportedly preventing crop growth.

---

01 ___ O. Contamination of Sewers, Storm Drains, WWTPs | 02 ___ Observed (Date: ____) | _x_ Potential | ___ Alleged
04 Narrative Description

None reported.

---

01 ___ P. Illegal/Unauthorized Dumping | 02 ___ Observed (Date: ____) | ___ Potential | ___ Alleged
04 Narrative Description

None reported

---

05 Description of Any Other Known, Potential or Alleged Hazards

None known.

III. Total Population Potentially Affected: *unknown*

IV. Comments

NYSDOH has indicated that site does not present a concern for contamination of groundwater.

V. Sources of Information (Cite specific references, e.g., state files, sample analysis, reports)

Preliminary Site Assessment, ETE Sanitation and Landfill Site, URS Consultants, December 1990.
Preliminary Site Assessment Report, ETE Sanitation Landfill Site, Engineering-Science, Inc., October 1993.

EPA	Potential Hazardous Waste Site Site Inspection Report Part 4 - Permit And Descriptive Information	I. Identification 01 State 02 Site Number NY 961005

II. Permit Information

01 Type of Permit Issued (Check all that apply)	02 Permit Number	03 Date Issued	04 Expiration Date	05 Comments
___ A. NPDES				
___ B. UIC				
___ C. Air				
___ D. RCRA				
___ E. RCRA Interim Status				
___ F. SPCC Plan				
___ G. State (Specify)				
___ H. Local (Specify)				
___ I. Other (Specify)				
___ J. None				

III. Site Description

01 Storage/Disposal (Check all that apply)	02 Amount	03 Unit of Measure	04 Treatment (Check all that apply)	05 Other
___ A. Surface Impoundment	____	____	___ A. Incineration	A. Buildings on Site *None*
___ B. Piles	____	____	___ B. Underground Injection	
___ C. Drums, above ground	____	____	___ C. Chemical/Physical	
___ D. Tank, above ground	____	____	___ D. Biological	
___ E. Tank, below ground	____	____	___ E. Waste Oil Processing	
_x_ F. Landfill	____	____	___ F. Solvent Recovery	06 Area of Site
___ G. Landfarm	____	____	___ G. Other Recycling/Recovery	*20* (Acres)
___ H. Open Dump	____	____	___ H. Other _____ (Specify)	
___ I. Other _____ (Specify)	____	____		

07 Comments

Altmar Corporation reportedly disposed approximately 150 tones of leaded paint sludge on-site. Plating wastes may have been disposed on-site by Mallory Timer. Salts were reportedly disposed on-site by Morton Salt.

IV. Containment

01 Containment of Wastes (Check One)

___ A. Adequate, Secure ___ B. Moderate _x_ C. Inadequate, Poor ___ D. Insecure, Unsound, Dangerous

02 Description of Drums, Diking, Liners, Barriers, Etc.

Poor containment, leachate outbreaks are common. Landfill is not lined or capped. Partially buried drums observed on-site.

V. Accessibility

01 Waste Easily Accessible: _x_ Yes ___ No

02 Comments

Leachate may pose a potential hazard.

VI. Sources of Information (Cite specific references, e.g., state files, sample analysis, reports)

Preliminary Site Assessment Report, ETE Sanitation and Landfill Site, Engineering-Science, Inc., October 1993.

EPA	Potential Hazardous Waste Site Site Inspection Report **Part 5 - Water, Demographic, and Environmental Data**	I. Identification 01 State 02 Site Number NY 961005

II. Drinking Water Supply

01 Type of Drinking Water Supply (Check as applicable) | 02 Status | 03 Distance To Site

	Surface	Well	Endangered	Affected	Monitored	
Community	A. __	B. x	A. __	B. __	C. x	A. 1 (Mi.)
Non-Community	C. __	D. x	D. __	E. x	F. __	B. < 2500 (Ft.)

III. Groundwater

01 Groundwater Use In Vicinity (Check One)

__ A. Only Source For Drinking | x B. Drinking (Other Sources Available) Commercial, Industrial Irrigation (No other water sources available) | __ C. Commercial, Industrial Irrigation (Limited other sources available) | __ D. Not Used, Unusable

02 Population Served by Groundwater 106 | 03 Distance to nearest drinking water well < 2500 (ft)

04 Depth to Groundwater of Concern	05 Direction of Groundwater Flow of Aquifer	06 Depth to Aquifer	07 Potential Yield Aquifer	08 Sole Source
20 (ft)	Northeast	20 (ft)	Unk (gpd)	__ Yes x No

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

Average area well depth is 100-150 ft. Private wells exist less than two miles SE of site (downgradient) and less than 1200 feet west of the site.

10 Recharge Area

x Yes Comments
__ No *Shallow and deep well water levels indicate a downward flow.*

11 Discharge Area

x Yes Comments *Leachate outbreaks noted along west and north sides of site.*
__ No

IV. Surface Water

01 Surface Water Use (Check One)

x A. Reservoir, Recreation Drinking Water Source | __ B. Irrigation, Economically Important Resources | __ C. Commercial, Industrial | __ D. Not Currently Used

02 Affected/Potentially Affected Bodies of Water

	Affected	Distance To Site
Name: Cotton Creek	Unknown	0.75 (mi)
Name: Oatka Creek	Unknown	< 1 (mi)

V. Demographic and Property Information

01 Total Population Within

One (1) Mile of Site	Two (2) Miles of Site	Four (4) Miles of Site
A. 137	B. 735	C. 3283
No. of Persons	No. of Persons	No. of Persons

02 Distance To Nearest Population 0.25 (mi.)

03 Number of Buildings Within Two (2) Miles of Site 291

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

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

The site is located in a rural area northeast of the Village of Gainesville. The Villages of Gainesville, Silver Springs, and Glen Rock are located within a two mile radius of the site.

EPA	Potential Hazardous Waste Site Site Inspection Report Part 5 - Water, Demographic, and Environmental Data	I. Identification 01 State 02 Site Number NY 961005

VI. Environmental Information

01 Permeability of Unsaturated Zone (Check One)

__ A. 10^{-6}-10^{-8} cm/sec _x_ B. 10^{-4}-10^{-6} cm/sec __ C. 10^{-4}-10^{-3} cm/sec __ D. Greater than 10^{-3} cm/sec

02 Permeability of Bedrock (Check One)

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

03 Depth to Bedrock	04 Depth of Contaminated Soil Zone	05 Soil pH
>84 (ft)	Unknown (ft)	Unknown

06 Net Precipitation	07 One Year 24-Hour Rainfall	08 Slope Site Slope	Direction of Site Slope	Terrain Average Slope
13 (in)	2.5 (in)	0-3 %	North	10-15 %

09 Flood Potential

Site is outside 500 year floodplain

10

No Site is on Barrier Island, Coastal High Hazard Area, Riverine Floodway

11 Distance to Wetlands (5 acre minimum)

Estuarine	Other
A. >1 (mi)	B. >1 (mi)

12 Distance to Critical Habitat (of endangered species)

>1 (mi)

Endangered Species: None within 1 mile

13 Land Use In Vicinity

Distance To: Commercial/Industrial	Residential Areas: National Parks, Forests or Wildlife Reserves	Agricultural Lands: Prime Ag Land	Agricultural Lands: Ag Land
A. 0.5 (mi.)	B. <0.75 (mi.)	C. 0.4 (mi.)	D. 0.2 (mi.)

14 Description of Site In Relation To Surrounding Topography

The site is of generally higher elevation than surrounding terrain. Topography slopes north-northeast. Leachate drains to leachate collection pond at the base of the north slope of the landfill. The leachate pond discharges to a tributary to Cotton Creek. A heavily ponded area is located southeast of the site. Area south of the site levels off and then slopes south.

VII. Sources of Information (Cite specific references, e.g., state files, sample analysis, reports)

Preliminary Site Assessment, ETE Sanitation and Landfill Site, URS Consultants, December 1990.
Preliminary Site Assessment Report, ETE Sanitation Landfill Site, Engineering-Science, Inc., October 1993.

E P A	Potential Hazardous Waste Site Site Inspection Report Part 6 - Sample And Field Information	I. Identification 01 State 02 Site Number NY 961005

II. Samples Taken

Sample Type	01 Number of Samples Taken	02 Samples Sent To	03 Estimated Date Results Available
Groundwater	7	Recra Environmental	June 1993
Surface Water	1	NYSDEC (mobile laboratory)	January 1988
Sediment	1	Cambridge Analytical Associates	April, 1987
		Recra Environmental, Inc.	June 1, 1993
Leachate	1	Cambridge Analytical Associates	April, 1987
	3	Recra Environmental	June, 1992
	1	Recra Environmental	June, 1993
Soil/Surface-Shallow /Subsurface	1	NYSDEC (mobile laboratory)	January, 1988
	2	NYSDOH - WCLR	January, 1990
	7	Recra Environmental, Inc.	June, 1993
Waste	1	NYSDEC (mobile laboratory)	January, 1988
	15	Lozier Laboratories	May, 1990
Tap Water	2	NYSDOH - WCLR	December, 1989

NOTE: WCLR - Wadsworth Center for Laboratories and Research.

III. Field Measurements Taken

01 Type	02 Comments
LEL, Microtip PID	No readings above background. April 20, 1993

IV. Photographs And Maps

01 Type _x_ Ground _x_ Aerial 02 In Custody of *Engineering-Science, Inc.*
(Name of Organization or Individual)

03 Maps 02 Location of Maps

_x_ Yes *Engineering-Science, Inc.*

___ No

V. Other Field Data Collected (Provide Narrative Description)

Locations of sampling points and leachate outbreaks recorded on a site map. In addition, photographs were taken.

VI. Sources of Information (Cite specific references, e.g., state files, sample analysis, reports)

Preliminary Site Assessment, ETE Sanitation and Landfill Site, URS Consultants, December 1990.
Preliminary Site Assessment Report, ETE Sanitation Landfill Site, Engineering-Science, Inc., October 1993.

EPA	Potential Hazardous Waste Site Site Inspection Report Part 7 - Owner Information	I. Identification 01 State 02 Site Number NY 961005

II. CURRENT OWNER(s)			PARENT COMPANY (If Applicable)		
01 Name *ETE Corporation (Mr. DM Iwanicki, Trustee)*		02 D+B Number	08 Name		09 D+B Number
03 Street Address (P.O. Box, RFD #, etc) *c/o Edward Herbert, Glen Rock Restaurant*		04 SIC Code	10 Street Address (P.O. Box, RFD #, etc)		11 SIC Code
05 City *Silver Springs*	06 State *NY*	07 Zip Code *14550*	12 City	13 State	14 Zip Code
01 Name		02 D+B Number	08 Name		09 D+B Number
03 Street Address (P.O. Box, RFD #, etc)		04 SIC Code	10 Street Address (P.O. Box, RFD #, etc)		11 SIC Code
05 City	06 State	07 Zip Code	12 City	13 State	14 Zip Code
01 Name		02 D+B Number	08 Name		09 D+B Number
03 Street Address (P.O. Box, RFD #, etc)		04 SIC Code	10 Street Address (P.O. Box, RFD #, etc)		11 SIC Code
05 City	06 State	07 Zip Code	12 City	13 State	14 Zip Code
01 Name		02 D+B Number	08 Name		09 D+B Number
03 Street Address (P.O. Box, RFD #, etc)		04 SIC Code	10 Street Address (P.O. Box, RFD #, etc)		11 SIC Code
05 City	06 State	07 Zip Code	12 City	13 State	14 Zip Code

III. PREVIOUS OWNER(s) (List most recent first)			IV. REALTY OWNER(s) (if applicable list most recent first)		
01 Name *Edward Herbert*		02 D+B Number	08 Name		09 D+B Number
03 Street Address (P.O. Box, RFD #, etc) *3 South Main Street*		04 SIC Code	10 Street Address (P.O. Box, RFD #, etc)		11 SIC Code
05 City *Gainesville*	06 State *NY*	07 Zip Code *14569*	12 City	13 State	14 Zip Code
01 Name		02 D+B Number	08 Name		09 D+B Number
03 Street Address (P.O. Box, RFD #, etc)		04 SIC Code	10 Street Address (P.O. Box, RFD #, etc)		11 SIC Code
05 City	06 State	07 Zip Code	12 City	13 State	14 Zip Code
01 Name		02 D+B Number	08 Name		09 D+B Number
03 Street Address (P.O. Box, RFD #, etc)		04 SIC Code	10 Street Address (P.O. Box, RFD #, etc)		11 SIC Code
05 City	06 State	07 Zip Code	12 City	13 State	14 Zip Code

V. Sources of Information (Cite specific references, e.g., state files, sample analyses, reports)

Preliminary Site Assessment, ETE Sanitation and Landfill Site, URS Consultants, December 1990.
Preliminary Site Assessment Report, ETE Sanitation Landfill Site, Engineering-Science, Inc., October 1993.

E P A	Potential Hazardous Waste Site Site Inspection Report Part 8 - Operator Information	I. Identification 01 State 02 Site Number NY 961005

II. CURRENT Operator (Provide if different from Owner) | OPERATOR'S PARENT COMPANY

01 Name	02 D+B Number	10 Name	11 D+B Number
03 Street Address (P.O. Box, RFD #, etc)	04 SIC Code	12 Street Address (P.O. Box, RFD #, etc)	13 SIC Code
05 City 06 State	07 Zip Code	14 City 15 State	16 Zip Code
08 Years of Operation	09 Name of Owner		

III. PREVIOUS OPERATOR(s) | PREVIOUS OPERATORS' PARENT COMPANIES (If Applicable)

01 Name *ETE Corporation*	02 D+B Number	10 Name	11 D+B Number
03 Street Address (P.O. Box, RFD #, etc)	04 SIC Code	12 Street Address (P.O. Box, RFD #, etc)	13 SIC Code
05 City 06 State *Gainesville NY*	07 Zip Code *14569*	14 City 15 State	16 Zip Code
08 Years of Operation *1972-1979*	09 Name of Owner During This Period		
01 Name *Refuse Unlimited, Inc.*	02 D+B Number	10 Name	11 D+B Number
03 Street Address (P.O. Box, RFD #, etc)	04 SIC Code	12 Street Address (P.O. Box, RFD #, etc)	13 SIC Code
05 City 06 State *Unknown*	07 Zip Code	14 City 15 State	16 Zip Code
08 Years of Operation *Unknown*	09 Name of Owner During This Period		
01 Name	02 D+B Number	10 Name	11 D+B Number
03 Street Address (P.O. Box, RFD #, etc)	04 SIC Code	12 Street Address (P.O. Box, RFD #, etc)	13 SIC Code
05 City 06 State	07 Zip Code	14 City 15 State	16 Zip Code
08 Years of Operation	09 Name of Owner During This Period		

IV. Sources of Information (Cite specific references, e.g., state files, sample analysis, report(s))

Preliminary Site Assessment, ETE Sanitation and Landfill Site, URS Consultants, December 1990.
Preliminary Site Assessment Report, ETE Sanitation Landfill Site, Engineering-Science, Inc., October 1993.

E P A	Potential Hazardous Waste Site Site Inspection Report Part 9 - Generator/Transporter Information	I. Identification 01 State 02 Site Number NY *961005*

II. On-Site Generator

01 Name | 02 D+B Number

03 Street Address (P.O. Box, RFD #, etc) | 04 SIC Code

05 City | 06 State | 07 Zip Code

III. Off-Site Generator(s)

01 Name	02 D+B Number	01 Name	02 D+B Number
Almor Corporation		*Mallory Timers*	
03 Street Address (P.O. Box, RFD #, etc)	04 SIC Code	03 Street Address (P.O. Box, RFD #, etc)	04 SIC Code
220 S. Main Street			
05 City / 06 State / 07 Zip Code		05 City / 06 State / 07 Zip Code	
Warsaw / *NY* / *14569*		*Warsaw* / *NY* / *14569*	

IV. Transporter(s)

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

V. Sources of Information (Cite specific references, e.g., state files, sample analysis, reports)

Preliminary Site Assessment, ETE Sanitation and Landfill Site, URS Consultants, December 1990.
Preliminary Site Assessment Report, ETE Sanitation Landfill Site, Engineering-Science, Inc., October 1993.

EPA	Potential Hazardous Waste Site Site Inspection Report Part 10 - Past Response Activities	I. Identification 01 State 02 Site Number NY 961005

II. Past Response Activities

01 ___ A. Water Supply Closed — 02 Date _____ — 03 Agency _____
04 Description

01 ___ B. Temporary Water Supply Provided — 02 Date _____ — 03 Agency _____
04 Description

01 ___ C. Permanent Water Supply Provided — 02 Date _____ — 03 Agency _____
04 Description

01 ___ D. Spilled Material Removed — 02 Date _____ — 03 Agency _____
04 Description

01 ___ E. Contaminated Soil Removed — 02 Date _____ — 03 Agency _____
04 Description

01 *x* F. Waste Repacked — 02 Date *April 1990* — 03 Agency *Marcon Inc./NYSDEC*
04 Description

100 empty drums crushed and stored on-site. 19 drums overpacked and stored on-site.

01 ___ G. Waste Disposed Elsewhere — 02 Date _____ — 03 Agency _____
04 Description

01 ___ H. On Site Burial — 02 Date _____ — 03 Agency _____
04 Description

01 ___ I. In Site Chemical Treatment — 02 Date _____ — 03 Agency _____
04 Description

01 ___ J. In Situ Biological Treatment — 02 Date _____ — 03 Agency _____
04 Description

01 ___ K. In Situ Physical Treatment — 02 Date _____ — 03 Agency _____
04 Description

01 ___ L. Encapsulation — 02 Date _____ — 03 Agency _____
04 Description

01 ___ M. Emergency Waste Treatment — 02 Date _____ — 03 Agency _____
04 Description

E P A	Potential Hazardous Waste Site Site Inspection Report Part 10 - Past Response Activities	I. Identification 01 State 02 Site Number NY 961005

II. Past Response Activities (Continued)

01 ___ N. Cutoff Walls 02 Date _____ 03 Agency _____
04 Description

01 ___ O. Emergency Diking/Surface Water Diversion 02 Date _____ 03 Agency _____
04 Description

01 ___ P. Cutoff Trenches/Sump 02 Date _____ 03 Agency _____
04 Description

01 ___ Q. Subsurface Cutoff Wall 02 Date _____ 03 Agency _____
04 Description

01 ___ R. Barrier Walls Constructed 02 Date _____ 03 Agency _____
04 Description

01 ___ S. Capping/Covering 02 Date _____ 03 Agency _____
04 Description

01 ___ T. Bulk Tankage Repaired 02 Date _____ 03 Agency _____
04 Description

01 ___ U. Grout Curtain Constructed 02 Date _____ 03 Agency _____
04 Description

01 ___ V. Bottom Sealed 02 Date _____ 03 Agency _____
04 Description

01 ___ W. Gas Control 02 Date _____ 03 Agency _____
04 Description

01 ___ X. Fire Control 02 Date _____ 03 Agency _____
04 Description

01 ___ Y. Leachate Treatment 02 Date _____ 03 Agency _____
04 Description

01 ___ Z. Area Evacuated 02 Date _____ 03 Agency _____
04 Description

01 ___ 1. Access To Site Restricted 02 Date _____ 03 Agency _____
04 Description

01 ___ 2. Population Relocated 02 Date _____ 03 Agency _____
04 Description

01 ___ 3. Other Remedial Activities 02 Date _____ 03 Agency _____
04 Description

III. Sources of Information (Cite specific references, e.g., state files, sample analysis, reports)

Preliminary Site Assessment, ETE Sanitation and Landfill Site, URS Consultants, December 1990.
Preliminary Site Assessment Report, ETE Sanitation Landfill Site, Engineering-Science, Inc., October 1993.

E P A	Potential Hazardous Waste Site Site Inspection Report Part 11 - Enforcement Information	I. Identification 01 State 02 Site Number NY *961005*

II. Enforcement Information

01 Past Regulatory/Enforcement Action _x_ Yes ___ No

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

New York State issued a "cease Landfill operations" order in 1979.

III. Sources of Information (Cite specific references, e.g., state files, sample analysis, reports)

Preliminary Site Assessment, ETE Sanitation and Landfill Site, URS Consultants, December 1990.
Preliminary Site Assessment Report, ETE Sanitation Landfill Site, Engineering-Science, Inc., October 1993.

961005

ENGINEERING INVESTIGATIONS AT INACTIVE HAZARDOUS WASTE SITES

PRELIMINARY SITE ASSESSMENT

APPENDICES B-E
VOLUME II

ETE Sanitation and Landfill
Gainesville Township

Site No. 961005
Wyoming County

Prepared for:

New York State
Department of
Environmental Conservation
50 Wolf Road, Albany, New York 12233
Thomas C. Jorling, Commissioner

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

BY:

ENGINEERING-SCIENCE, INC.
LIVERPOOL, NEW YORK

FEBRUARY 1994

VOLUME 2 - APPENDICES B-E

ETE SANITATION AND LANDFILL SITE
NYSDEC SITE NO. 961005
GAINESVILLE TOWNSHIP
WYOMING COUNTY, NEW YORK

PRELIMINARY SITE ASSESSMENT
WORK ASSIGNMENT NO. D002478-17
NEW YORK STATE SUPERFUND STANDBY CONTRACT

Prepared for

DIVISION OF HAZARDOUS WASTE REMEDIATION
NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION
50 WOLF ROAD
ALBANY, NEW YORK

Prepared by

Engineering-Science, Inc.
290 Elwood Davis Road
Liverpool, N.Y. 13088

FEBRUARY 1994

723800.05060
(SY327.05)

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APPENDIX B

APPENDIX B

PA SCORE SHEETS

OMB Approval Number: 2050-0095
Approved for Use Through: 4/95

POTENTIAL HAZARDOUS WASTE SITE PRELIMINARY ASSESSMENT FORM	IDENTIFICATION State: NY | CERCLIS Number: CERCLIS Discovery Date:

1. General Site Information

Name:	Street Address:
ETE SANITATION AND LANDFILL	BROUGHTON ROAD

City:	State:	Zip Code:	County:	Co. Code:	Cong. Dist:
GAINESVILLE	NY	14066	WYOMING		

Latitude: Longitude:	Approx. Area of Site:	Status of Site:
42 39' 28.0" 78 7' 36.0"	20 acres	Inactive

2. Owner/Operator Information

Owner:	Operator:
ETE CORPORATION	
Street Address:	Street Address:
3 SOUTH MAIN STREET	
City:	City:
GAINESVILLE	

State:	Zip Code:	Telephone:	State:	Zip Code:	Telephone:
NY	14569	(716)786-2530			

Type of Ownership:	How Initially Identified:
Private	State/Local Program

POTENTIAL HAZARDOUS WASTE SITE PRELIMINARY ASSESSMENT FORM	IDENTIFICATION	
	State: NY	CERCLIS Number:
	CERCLIS Discovery Date:	

3. Site Evaluator Information

Name of Evaluator:	Agency/Organization:	Date Prepared:
THOMAS H. ABRAMS	ENGINEERING-SCIENCE, INC	10/11/93

Street Address:	City:	State:
290 ELWOOD DAVIS ROAD	LIVERPOOL	NY

Name of EPA or State Agency Contact:	Telephone:
CARL HOFFMAN, PE	(518)457-9538

Street Address:	City:	State:
NYSDEC, 50 WOLF ROAD	ALBANY	NY

4. Site Disposition (for EPA use only)

Emergency Response/Removal Assessment Recommendation: No	CERCLIS Recommendation: Higher Priority SI	Signature:
Date:	Date:	Name:
		Position:

POTENTIAL HAZARDOUS WASTE SITE
PRELIMINARY ASSESSMENT FORM

IDENTIFICATION
State: NY
CERCLIS Number:
CERCLIS Discovery Date:

5. General Site Characteristics

Predominant Land Uses Within 1 Mile of Site:
Residential
Forest/Fields
Agricultural

Site Setting:
Rural

Years of Operation:
Beginning Year: 1972
Ending Year: 1979

Type of Site Operations:
Municipal Landfill
Other Landfill
Not Specified

Waste Generated:
Offsite

Waste Deposition Authorized By: Present Owner

Waste Accessible to the Public:
Yes

Distance to Nearest Dwelling, School, or Workplace:
1000 Feet

6. Waste Characteristics Information

Source Type	Quantity	Tier
Landfill	8.70e+00 acres	A
Surface impoundment	2.00e+04 sq ft	A

Tier Legend
C = Constituent W = Wastestream
V = Volume A = Area

General Types of Waste:
Solvents
Paints/Pigments
Municipal Waste

Physical State of Waste as Deposited:
Solid
Liquid

POTENTIAL HAZARDOUS WASTE SITE PRELIMINARY ASSESSMENT FORM	IDENTIFICATION State: NY CERCLIS Number: CERCLIS Discovery Date:

7. Ground Water Pathway

Is Ground Water Used for Drinking Water Within 4 Miles: No Type of Ground Water Wells Within 4 Miles: Private Depth to Shallowest Aquifer: 0 Feet Karst Terrain/Aquifer Present: No	Is There a Suspected Release to Ground Water: Yes Have Primary Target Drinking Water Wells Been Identified: No Nearest Designated Wellhead Protection Area: >0 - 4 Miles	List Secondary Target Population Served by Ground Water Withdrawn From: 0 - 1/4 Mile 8 >1/4 - 1/2 Mile 33 >1/2 - 1 Mile 117 >1 - 2 Miles 434 >2 - 3 Miles 900 >3 - 4 Miles 1538 Total 3030

POTENTIAL HAZARDOUS WASTE SITE PRELIMINARY ASSESSMENT FORM	IDENTIFICATION State: NY CERCLIS Number: CERCLIS Discovery Date:

8. Surface Water Pathway — Part 1 of 4

Type of Surface Water Draining Site and 15 Miles Downstream: Stream River Pond	Shortest Overland Distance From Any Source to Surface Water: 0 Feet 0.0 Miles
Is there a Suspected Release to Surface Water: Yes	Site is Located in: Annual - 10 yr floodplain

8. Surface Water Pathway — Part 2 of 4

Drinking Water Intakes Along the Surface Water Migration Path: No

Have Primary Target Drinking Water Intakes Been Identified: No

Secondary Target Drinking Water Intakes:
None

POTENTIAL HAZARDOUS WASTE SITE PRELIMINARY ASSESSMENT FORM	IDENTIFICATION
	State: NY | CERCLIS Number:
	CERCLIS Discovery Date:

8. Surface Water Pathway — Part 3 of 4

Fisheries Located Along the Surface Water Migration Path: Yes

Have Primary Target Fisheries Been Identified: Yes

Secondary Target Fisheries:
None

8. Surface Water Pathway — Part 4 of 4

Wetlands Located Along the Surface Water Migration Path? (y/n) Yes

Have Primary Target Wetlands Been Identified? (y/n) Yes

Secondary Target Wetlands:
None

Other Sensitive Environments Along the Surface Water Migration Path: No

Have Primary Target Sensitive Environments Been Identified: No

Secondary Target Sensitive Environments:
None

POTENTIAL HAZARDOUS WASTE SITE
PRELIMINARY ASSESSMENT FORM

IDENTIFICATION

State: NY | CERCLIS Number:

CERCLIS Discovery Date:

9. Soil Exposure Pathway

Are People Occupying Residences or Attending School or Daycare on or Within 200 Feet of Areas of Known or Suspected Contamination: No

Number of Workers Onsite: None

Have Terrestrial Sensitive Environments Been Identified on or Within 200 Feet of Areas of Known or Suspected Contamination: No

10. Air Pathway

Total Population on or Within:	
Onsite	0
0 - 1/4 Mile	9
>1/4 - 1/2 Mile	36
>1/2 - 1 Mile	137
>1 - 2 Miles	735
>2 - 3 Miles	2000
>3 - 4 Miles	3281
Total	6198

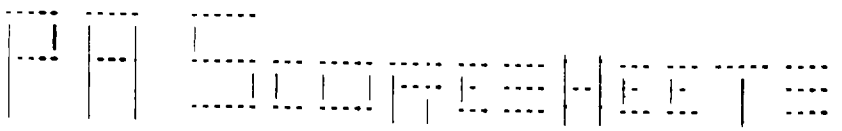
Is There a Suspected Release to Air: No

Wetlands Located Within 4 Miles of the Site: No

Other Sensitive Environments Located Within 4 Miles of the Site: No

Sensitive Environments Within 1/2 Mile of the Site:
None

OMB Approval Number: 2050-0095
Approved for Use Through: 4/95



Site Name: ETE SANITATION AND LANDFILL
CERCLIS ID No.:
Street Address: BROUGHTON ROAD
City/State/Zip: GAINESVILLE, NY 14066

Investigator: THOMAS H. ABRAMS
Agency/Organization: ENGINEERING-SCIENCE, INC
Street Address: 290 ELWOOD DAVIS ROAD
City/State: LIVERPOOL , NY

Date: 10/11/93

WASTE CHARACTERISTICS

Waste Characteristics (WC) Calculations:

1 ETE LANDFILL	Landfill	Ref: 1	WQ value	maximum
Area	8.70E+00 acres		1.12E+02	1.12E+02

ESTIMATED LANDFILL RADIUS TO BE APPROXIMATELY 350 FEET; THEREFORE
AREA = 3.14*(350*350).
Ref: ES, 1993.

2 LEACHATE POND	Surface impoundment	Ref: 1	WQ value	maximum
Area	2.00E+04 sq ft		1.54E+03	1.54E+03

ESTIMATED LEACHATE COLLECTION POND TO BE 100 FEET BY 200 FEET;
THEREFORE 100*200=20,000.
Ref: ES, 1993.

WQ total 1.65E+03

** Only First WC Page Is Printed ** | Waste Characteristics Score: WC = 32

Ground Water Pathway Criteria List
Suspected Release

Are sources poorly contained? (y/n/u)	Y
Is the source a type likely to contribute to ground water contamination (e.g., wet lagoon)? (y/n/u)	Y
Is waste quantity particularly large? (y/n/u)	N
Is precipitation heavy? (y/n/u)	N
Is the infiltration rate high? (y/n/u)	N
Is the site located in an area of karst terrain? (y/n)	N
Is the subsurface highly permeable or conductive? (y/n/u)	N
Is drinking water drawn from a shallow aquifer? (y/n/u)	U
Are suspected contaminants highly mobile in ground water? (y/n/u)	Y
Does analytical or circumstantial evidence suggest ground water contamination? (y/n/u)	Y
Other criteria? (y/n) N	
SUSPECTED RELEASE? (y/n)	Y

Summarize the rationale for Suspected Release:

CHLORINATED SOLVENTS DETECTED IN DRUMS DISPOSED ON-SITE AND IN GROUNDWATER.

Ref: ES, 1993.

Ground Water Pathway Criteria List
Primary Targets

Is any drinking water well nearby? (y/n/u)	N
Has any nearby drinking water well been closed? (y/n/u)	U
Has any nearby drinking water well user reported foul-testing or foul-smelling water? (y/n/u)	U
Does any nearby well have a large drawdown/high production rate? (y/n/u)	U
Is any drinking water well located between the site and other wells that are suspected to be exposed to a hazardous substance? (y/n/u)	U
Does analytical or circumstantial evidence suggest contamination at a drinking water well? (y/n/u)	N
Does any drinking water well warrant sampling? (y/n/u)	Y
Other criteria? (y/n)	N
PRIMARY TARGET(S) IDENTIFIED? (y/n)	N

Summarize the rationale for Primary Targets:

Ref:

GROUND WATER PATHWAY SCORESHEETS

Pathway Characteristics

		Ref.
Do you suspect a release? (y/n)	Yes	
Is the site located in karst terrain? (y/n)	No	
Depth to aquifer (feet):	0	
Distance to the nearest drinking water well (feet):	0	

LIKELIHOOD OF RELEASE	Suspected Release	No Suspected Release	References
1. SUSPECTED RELEASE	550		
2. NO SUSPECTED RELEASE		0	
LR =	550	0	

Targets

TARGETS	Suspected Release	No Suspected Release	References
3. PRIMARY TARGET POPULATION 0 person(s)	0		
4. SECONDARY TARGET POPULATION Are any wells part of a blended system? (y/n) N	38	0	
5. NEAREST WELL	20	0	
6. WELLHEAD PROTECTION AREA >0 - 4 Miles	5	0	
7. RESOURCES	5	0	
T =	68	0	

WASTE CHARACTERISTICS

WC =	32	0

GROUND WATER PATHWAY SCORE: 15

Ground Water Target Populations

Primary Target Population Drinking Water Well ID	Dist. (miles)	Population Served	Reference	Value
None				

*** Note : Maximum of 5 Wells Are Printed *** Total

Secondary Target Population Distance Categories	Population Served	Reference	Value
0 to 1/4 mile	8	1	1
Greater than 1/4 to 1/2 mile	33	1	3
Greater than 1/2 to 1 mile	117	1	5
Greater than 1 to 2 miles	434	1	9
Greater than 2 to 3 miles	900	1	7
Greater than 3 to 4 miles	1538	1	13
		Total	38

Apportionment Documentation for a Blended System

Surface Water Pathway Criteria List
Suspected Release

Is surface water nearby? (y/n/u)	Y
Is waste quantity particularly large? (y/n/u)	N
Is the drainage area large? (y/n/u)	N
Is rainfall heavy? (y/n/u)	N
Is the infiltration rate low? (y/n/u)	N
Are sources poorly contained or prone to runoff or flooding? (y/n/u)	Y
Is a runoff route well defined(e.g.ditch/channel to surf.water)? (y/n/u)	Y
Is vegetation stressed along the probable runoff path? (y/n/u)	Y
Are sediments or water unnaturally discolored? (y/n/u)	Y
Is wildlife unnaturally absent? (y/n/u)	U
Has deposition of waste into surface water been observed? (y/n/u)	Y
Is ground water discharge to surface water likely? (y/n/u)	Y
Does analytical/circumstantial evidence suggest S.W. contam? (y/n/u)	Y
Other criteria? (y/n)	N
SUSPECTED RELEASE? (y/n)	Y

Summarize the rationale for Suspected Release:

LEACHATE DISCHARGE OBSERVED ALONG NORTH AND WEST PERIMETER OF LANDFILL. LEACHATE DRAINS TO DITCH RUNNING FROM POND UPGRADIENT OF LANDFILL TO LEACHATE COLLECTION POND DOWNGRADIENT OF LANDFILL. C HLORINATED SOLVENTS DETECTED IN LEACHATE. LEACHATE COLLECTION POND DISCHARGES TO TRIBUTARY OF COTTON CREEK.

Ref: ES, 1993

Surface Water Pathway Criteria List
Primary Targets

Is any target nearby? (y/n/u) If yes: Y
N Drinking water intake
Y Fishery
N Sensitive environment

Has any intake, fishery, or recreational area been closed? (y/n/u) N

Does analytical or circumstantial evidence suggest surface water contamination at or downstream of a target? (y/n/u) N

Does any target warrant sampling? (y/n/u) If yes: Y
N Drinking water intake
Y Fishery
N Sensitive environment

Other criteria? (y/n) N

PRIMARY INTAKE(S) IDENTIFIED? (y/n) N

Summarize the rationale for Primary Intakes:

continued -------

continued -------

Other criteria? (y/n) N

PRIMARY FISHERY(IES) IDENTIFIED? (y/n) Y

Summarize the rationale for Primary Fisheries:

COTTON CREEK, A CLASS C WATER BODY SUITABLE FOR FISH PROPOGATION IS LOCATED LESS THAN ONE DOWNSTREAM OF THE SITE. LEACHATE REPORTEDLY DISCHARGES FROM THE LEACHATE COLLECTION POND TO A TRIBUTARY OF COTTON CREEK.

Ref: ES, 1993.

Other criteria? (y/n) N

PRIMARY SENSITIVE ENVIRONMENT(S) IDENTIFIED? (y/n) N

Summarize the rationale for Primary Sensitive Environments:

SURFACE WATER PATHWAY SCORESHEETS

Pathway Characteristics		Ref.
Do you suspect a release? (y/n)	Yes	
Distance to surface water (feet):	0	
Flood frequency (years):	1-10	
What is the downstream distance (miles) to:		
a. the nearest drinking water intake?	0.0	
b. the nearest fishery?	0.0	
c. the nearest sensitive environment?	0.0	

LIKELIHOOD OF RELEASE	Suspected Release	No Suspected Release	References
1. SUSPECTED RELEASE	550		
2. NO SUSPECTED RELEASE		0	
LR =	550	0	

Drinking Water Threat Targets

TARGETS	Suspected Release	No Suspected Release	References
3. Determine the water body type, flow (if applicable), and number of people served by each drinking water intake.			
4. PRIMARY TARGET POPULATION 0 person(s)	0		
5. SECONDARY TARGET POPULATION Are any intakes part of a blended system? (y/n): N	0	0	
6. NEAREST INTAKE	0	0	
7. RESOURCES	5	0	
T =	5	0	

Drinking Water Threat Target Populations

Intake Name	Primary (y/n)	Water Body Type/Flow	Population Served	Ref.	Value
None					

Total Primary Target Population Value 0
Total Secondary Target Population Value 0

*** Note : Maximum of 6 Intakes Are Printed ***

Apportionment Documentation for a Blended System

Human Food Chain Threat Targets

TARGETS	Suspected Release	No Suspected Release	References
8. Determine the water body type and flow for each fishery within the target limit.			
9. PRIMARY FISHERIES	300		
10. SECONDARY FISHERIES	0	0	
T =	300	0	

Human Food Chain Threat Targets

Fishery Name	Primary (y/n)	Water Body Type/Flow	Ref.	Value
1 COTTON CREEK	Y	primary fishery	1	300
2 OATKA CREEK	Y	primary fishery	1	300
None				

Total Primary Fisheries Value	300
Total Secondary Fisheries Value	0

*** Note : Maximum of 6 Fisheries Are Printed ***

Environmental Threat Targets

TARGETS	Suspected Release	No Suspected Release	References
11. Determine the water body type and flow (if applicable) for each sensitive environment.			
12. PRIMARY SENSITIVE ENVIRONMENTS	0		
13. SECONDARY SENSITIVE ENVIRONS.	0	0	
T =	0	0	

Environmental Threat Targets

Sensitive Environment Name	Primary (y/n)	Water Body Type/Flow	Ref.	Value
1 REGULATED WETLAND WY-13	N	<10 cfs	1	0
2 REGULATED WETLAND WY-12	N	<10 cfs	1	0
3 REGULATED WETLAND WY-15	N	<10 cfs	1	0
None				

Total Primary Sensitive Environments Value 0
Total Secondary Sensitive Environments Value 0
*** Note: Maximum of 6 Sensitive Environments Are Printed ***

Surface Water Pathway Threat Scores

Threat	Likelihood of Release(LR) Score	Targets(T) Score	Pathway Waste Characteristics (WC) Score	Threat Score LR x T x WC / 82,500
Drinking Water	550	5	32	1
Human Food Chain	550	300	32	64
Environmental	550	0	32	0
			SURFACE WATER PATHWAY SCORE:	65

Soil Exposure Pathway Criteria List
Resident Population

Is any residence, school, or daycare facility on or within 200 feet of an area of suspected contamination? (y/n/u)	N
Is any residence, school, or daycare facility located on adjacent land previously owned or leased by the site owner/operator? (y/n/u)	N
Is there a migration route that might spread hazardous substances near residences, schools, or daycare facilities? (y/n/u)	N
Have onsite or adjacent residents or students reported adverse health effects, exclusive of apparent drinking water or air contamination problems? (y/n/u)	U
Does any neighboring property warrant sampling? (y/n/u)	Y

Other criteria? (y/n) N

RESIDENT POPULATION IDENTIFIED? (y/n) N

Summarize the rationale for Resident Population:

SOIL EXPOSURE PATHWAY SCORESHEETS

Pathway Characteristics		Ref.
Do any people live on or within 200 ft of areas of suspected contamination? (y/n)	No	1
Do any people attend school or daycare on or within 200 ft of areas of suspected contamination? (y/n)	No	1
Is the facility active? (y/n):	No	1

LIKELIHOOD OF EXPOSURE	Suspected Contamination	References
1. SUSPECTED CONTAMINATION LE =	550	

Targets

2. RESIDENT POPULATION 0 resident(s) 0 school/daycare student(s)	0	1 1
3. RESIDENT INDIVIDUAL	0	
4. WORKERS None	0	1
5. TERRES. SENSITIVE ENVIRONMENTS	0	
6. RESOURCES	5	
T =	5	

WASTE CHARACTERISTICS

WC = 32

RESIDENT POPULATION THREAT SCORE: 1

NEARBY POPULATION THREAT SCORE: 1

Population Within 1 Mile: 1 - 10,000

SOIL EXPOSURE PATHWAY SCORE: 2

Soil Exposure Pathway Terrestrial Sensitive Environments

Terrestrial Sensitive Environment Name	Reference	Value
None		
Total Terrestrial Sensitive Environments Value		

*** Note : Maximum of 7 Sensitive Environments Are Printed ***

Air Pathway Criteria List
Suspected Release

Are odors currently reported? (y/n/u)	U
Has release of a hazardous substance to the air been directly observed? (y/n/u)	N
Are there reports of adverse health effects (e.g., headaches, nausea, dizziness) potentially resulting from migration of hazardous substances through the air? (y/n/u)	U
Does analytical/circumstantial evidence suggest release to air? (y/n/u)	N
Other criteria? (y/n) N	
SUSPECTED RELEASE? (y/n)	N

Summarize the rationale for Suspected Release:

AIR PATHWAY SCORESHEETS

Pathway Characteristics

		Ref.
Do you suspect a release? (y/n)	No	
Distance to the nearest individual (feet):	0	

LIKELIHOOD OF RELEASE	Suspected Release	No Suspected Release	References
1. SUSPECTED RELEASE	0		
2. NO SUSPECTED RELEASE		500	
LR =	0	500	

Targets

TARGETS	Suspected Release	No Suspected Release	References
3. PRIMARY TARGET POPULATION 0 person(s)	0		
4. SECONDARY TARGET POPULATION	0	6	
5. NEAREST INDIVIDUAL	0	20	
6. PRIMARY SENSITIVE ENVIRONS.	0		
7. SECONDARY SENSITIVE ENVIRONS.	0	0	
8. RESOURCES	0	5	
T =	0	31	

WASTE CHARACTERISTICS

WC =	0	32

AIR PATHWAY SCORE: 6

Air Pathway Secondary Target Populations

Distance Categories	Population	References	Value
Onsite	0	1	0
Greater than 0 to 1/4 mile	9	1	1
Greater than 1/4 to 1/2 mile	36	1	1
Greater than 1/2 to 1 mile	137	1	1
Greater than 1 to 2 miles	735	1	1
Greater than 2 to 3 miles	2000	1	1
Greater than 3 to 4 miles	3281	1	1
	Total Secondary Population Value		6

Air Pathway Primary Sensitive Environments

Sensitive Environment Name	Reference	Value
None		

Total Primary Sensitive Environments Value

*** Note : Maximum of 7 Sensitive Environments Are Printed***

Air Pathway Secondary Sensitive Environments

Sensitive Environment Name	Distance	Reference	Value
None			

Total Secondary Sensitive Environments Value

SITE SCORE CALCULATION	SCORE
GROUND WATER PATHWAY SCORE:	15
SURFACE WATER PATHWAY SCORE:	65
SOIL EXPOSURE PATHWAY SCORE:	2
AIR PATHWAY SCORE:	6
SITE SCORE:	33

SUMMARY

1. Is there a high possibility of a threat to any nearby drinking water well(s) by migration of a hazardous substance in ground water? No

   If yes, identify the well(s).

   If yes, how many people are served by the threatened well(s)? 0

2. Is there a high possibility of a threat to any of the following by hazardous substance migration in surface water?
   A. Drinking water intake No
   B. Fishery No
   C. Sensitive environment (wetland, critical habitat, others) No

   If yes, identity the target(s).

3. Is there a high possibility of an area of surficial contamination within 200 feet of any residence, school, or daycare facility? No

   If yes, identify the properties and estimate the associated population(s)

4. Are there public health concerns at this site that are not addressed by PA scoring consideretions? No

   If yes, explain:

REFERENCE LIST

1. ES, 1993. PRELIMINARY SITE ASSESSMENT REPORT - ETE SANITATION AND LAN DFILL SITE, ENGINEERING-SCIENCE, INC., LIVERPOOL, NEW YORK (DATE OCTOB ER 1993).

APPENDIX C

GEOLOGIC DATA

ENGINEERING–SCIENCE DRILLING RECORD

BORING NO. B–1D

Contractor: SJB Services, Inc.
Driller: Randy Steiner
Inspector: N.A. Smith
Rig Type/Method: CME–550 / 6.25" HSA

PROJECT NAME: ETE Sanitation
PROJECT NUMBER: SY327.05

Sheet of
Location: West of landfill

GROUNDWATER OBSERVATIONS

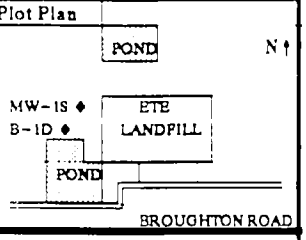
WATER LEVEL			
DATE			
TIME			

Weather Foggy, 35–40 degrees

Date/Time Start March 25, 1993 / 0950

Date/Time Finish April 1, 1993 / 1600

Plot Plan



Photovac Reading	Sample I.D.	Sample Depth	Percent Recovery	SPT	FIELD IDENTIFICATION OF MATERIAL	WELL SCHEMATIC
		0		SS		
2.6			75	2	Brown fine SAND, little silt (moist)	
		1		5	Brown fine to medium SAND (moist)	
				4		
		2		3	(wet at 2 feet)	
2.9			100	3		
		3		5		
				5	Brown fine to medium SAND and fine sand, some silt, layered	
		4		5	layers range from 1/4" – 1" in thickness (moist–wet)	
3.3	S1		100	2	Brown–gray SILT, some clay, trace fine sand (moist–wet)	
	S1	5		2		
	S1			2		
	S1	6		2		
4.4	S1		87.5	2		
	S1	7		3	Brown–gray SILT, some fine sand, trace clay and brown fine–	
	S1			7	medium SAND, layered 1/4" – 1/2" in thickness (moist)	
	S1	8		11		
4.6	S1		87.5	3		
	S1	9		4	Gray fine SAND and SILT, trace clay and rock fragments (moist)	
	S1			8		
	S1	10		8		
3.1	GS		75	2	Gray fine SAND, some silt, orange mottling (wet)	
	GS	11		2		
	GS			2		
	GS	12		3		
3.2	GS		87.5	2		
	GS	13		3		
	GS			4		
	GS	14		5		
2.7			75	3		
		15		3		
				4		
		16		6		
3.0			62.5	5		

Cement/ Bentonite Grout 0–46 feet

STANDARD PENETRATION TEST
SS = SPLIT SPOON
A = AUGER CUTTINGS
C = CORED

Summary: 0–4' Sand; 4–8.5' Silt; 8.5–36.5' Sand; 36.5–38.5' Sand and Gravel; 38.5–42.5' Sand; 42.5–44.5' Clay; 44.5–50' Sand; 50–52' Silt; 52–55.5' Sand; 55.5–64.5' Silt; 64.5–77' Sand; 77–84' Silt

ENGINEERING–SCIENCE DRILLING RECORD

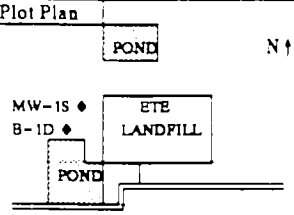
BORING NO. B–1D

Contractor: SJB Services, Inc.
Driller: Randy Steiner
Inspector: N.A. Smith
Rig Type/Method: CME–550 / 6.25" HSA

PROJECT NAME: ETE Sanitation
PROJECT NUMBER: SY327.05

Sheet of
Location: West of landfill

Plot Plan



GROUNDWATER OBSERVATIONS

WATER LEVEL				
DATE				
TIME				

Weather Foggy, 35–40 degrees
Date/Time Start March 25, 1993 / 0950
Date/Time Finish April 1, 1993 / 1600

Photovac Reading	Sample I.D.	Sample Depth	Percent Recovery	SPT	FIELD IDENTIFICATION OF MATERIAL	WELL SCHEMATIC
		17		5	Gray fine SAND, some silt with fine–medium sand seams (1/2"	
				7	thick) at 16.5 feet and 17 feet (wet)	
		18		8		
0.9			25	4	Gray fine to medium SAND, some angular rock fragments,	
		19		4	little silt (wet)	
				12		
		20		27		
2.6			50	14	Greenish–gray medium–coarse SAND and (wet)	
		21		10	sandstone fragments from pebbles to boulders	
				9		
		22		10		
3.1			25	16		
		23		50		
				25		
		24		15		
				A		
		25		A		
5.4			50	27		
		26		29		
				16		
		27		13		
3.6			50	25		
		28		35		
				27		
		29		19		
				A		
		30		A		
1.4			50	16	Gray medium SAND and sandstone fragments (wet)	
		31		19		
				31		
		32		24		
3.0			62.5	33	Gray fine–medium SAND and rock fragments trace silt (wet)	
		33		89		
				31	Gray fine SAND, some silt, trace pebbles (moist)	
		34		28		
				A		
		35		A		
7.4			62.5	24	Gray fine SAND, some pebbles, trace silt (moist–wet)	
		36		23		

Cement/ Bentonite Grout 0–46 feet

STANDARD PENETRATION TEST
SS = SPLIT SPOON
A = AUGER CUTTINGS
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Summary: 0–4' Sand; 4–8.5' Silt; 8.5–36.5' Sand; 36.5–38.5' Sand and Gravel; 38.5–42.5' Sand; 42.5–44.5' Clay; 44.5–50' Sand; 50–52' Silt; 52–55.5' Sand; 55.5–64.5' Silt; 64.5–77' Sand; 77–84' Silt

ENGINEERING–SCIENCE DRILLING RECORD

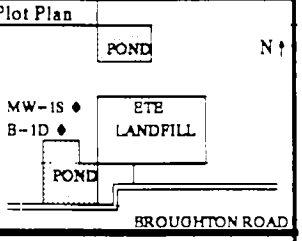
BORING NO. B–1D

Contractor: SJB Services, Inc.
Driller: Randy Steiner
Inspector: N.A. Smith
Rig Type/Method: CME–550 / 6.25" HSA

PROJECT NAME: ETE Sanitation
PROJECT NUMBER: SY327.05

Sheet of
Location: West of landfill

Plot Plan



GROUNDWATER OBSERVATIONS

WATER LEVEL				
DATE				
TIME				

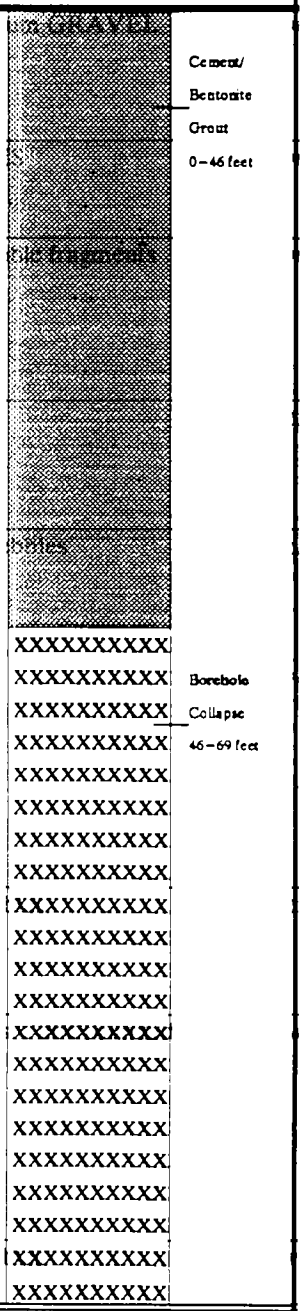
Weather Foggy, 35–40 degrees

Date/Time Start March 25, 1993 / 0950

Date/Time Finish April 1, 1993 / 1600

Photovac Reading	Sample I.D.	Sample Depth	Percent Recovery	SPT	FIELD IDENTIFICATION OF MATERIAL	
		37		33	Gray coarse SAND and fine–medium GRAVEL	(wet)
2.7			100	36		
		38		26		
				21		
		39		40	Gray medium SAND and PEBBLES	(wet)
				A		
		40		A		
2.4			37.5	21	Gray fine–medium SAND and cobble fragments	(wet)
		41		17		
				16		
		42		24		
2.3			62.5	21		
		43		23	Gray CLAY, some silt and pebbles	(moist)
				98		
		44		24		
				A		
		45		A	Gray fine SAND, some silt, little pebbles	(moist)
0.0			37.5	11		
		46		22		
				27		
		47		23		(moist–wet)
0.0			62.5	22		
		48		24		
				22		
		49		25		
				A		
		50		A		
0.0			62.5	11	Gray SILT, little fine sand and pebbles	(moist)
		51		10		
				12		
		52		13		
0.0			75	12	Gray fine–medium SAND, some silt and rounded pebbles	(wet)
		53		13		
				21		
		54		17		
				A		
		55		A		
0.0			75	9		
		56		12	Gray SILT, little fine sand and pebbles	(moist–wet)
				14		

WELL SCHEMATIC



STANDARD PENETRATION TEST
SS = SPLIT SPOON
A = AUGER CUTTINGS
C = CORED

Summary: 0–4' Sand; 4–8.5' Silt; 8.5–36.5' Sand; 36.5–38.5' Sand and Gravel; 38.5–42.5' Sand; 42.5–44.5' Clay; 44.5–50' Sand; 50–52' Silt; 52–55.5' Sand; 55.5–64.5' Silt; 64.5–77' Sand; 77–84' Silt

ENGINEERING–SCIENCE DRILLING RECORD

BORING NO. B–1D

Contractor: SJB Services, Inc.
Driller: Randy Steiner
Inspector: N.A. Smith
Rig Type/Method: CME–550 / 6.25" HSA

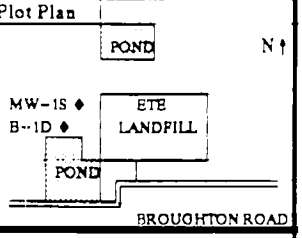
PROJECT NAME: ETE Sanitation
PROJECT NUMBER: SY327.05

Sheet of
Location: West of landfill
Plot Plan

GROUNDWATER OBSERVATIONS

WATER LEVEL				
DATE				
TIME				

Weather Foggy, 35–40 degrees
Date/Time Start March 25, 1993 / 0950
Date/Time Finish April 1, 1993 / 1600



Photovac Reading	Sample I.D.	Sample Depth	Percent Recovery	SPT	FIELD IDENTIFICATION OF MATERIAL	WELL SCHEMATIC
		57		14	Gray SILT, little fine sand and pebbles (moist–wet)	XXXXXXXXXX
0.0			50	15	Gray SILT, little pebbles (moist–wet)	XXXXXXXXXX Boreholo
		58		25		XXXXXXXXXX Collapse
				19		XXXXXXXXXX 46–69 feet
		59		18		XXXXXXXXXX
				A		XXXXXXXXXX
		60		A		XXXXXXXXXX
0.0			50	12	(wet)	XXXXXXXXXX
		61		7	Gray SILT, some clay, trace pebbles (wet)	XXXXXXXXXX
				8	Gray SILT, trace pebbles (wet)	XXXXXXXXXX
		62		10		XXXXXXXXXX
0.0			62.5	11	Gray SILT, some clay, trace pebbles (moist)	XXXXXXXXXX
		63		17		XXXXXXXXXX
				25		XXXXXXXXXX
		64		41		XXXXXXXXXX
				A		XXXXXXXXXX
		65		A	Gray SILT and fine SAND, little fine gravel–pebbles	XXXXXXXXXX
0.0			75	10	(moist–wet)	XXXXXXXXXX
		66		17		XXXXXXXXXX
				13		XXXXXXXXXX
		67		19		XXXXXXXXXX
0.0			50	19	Gray fine–medium SAND, some silt and fine gravel–pebbles	XXXXXXXXXX
		68		21	(wet)	XXXXXXXXXX
				20		XXXXXXXXXX
		69		18	Gray fine SAND, some silt, trace rounded fine gravel (wet)	XXXXXXXXXX
				A		Sand pack
		70		A		from attempted
0.0			50	5	Gray fine–medium SAND, some silt and fine gravel–pebbles,	well installation
		71		8	trace clay (wet)	69–80 feet
				13		
		72		17		
0.0			62.5	12		
		73		24	Gray fine–medium SAND, some pebbles, little silt (moist–wet)	
				24		
		74		24		
				A		
		75		A		
12.8			75	5		
		76		7		
				10		

STANDARD PENETRATION TEST
SS = SPLIT SPOON
A = AUGER CUTTINGS
C = CORED

Summary: 0–4' Sand; 4–8.5' Silt; 8.5–36.5' Sand; 36.5–38.5' Sand and Gravel; 38.5–42.5' Sand; 42.5–44.5' Clay; 44.5–50' Sand; 50–52' Silt; 52–55.5' Sand; 55.5–64.5' Silt; 64.5–77' Sand; 77–84' Silt

ENGINEERING–SCIENCE DRILLING RECORD

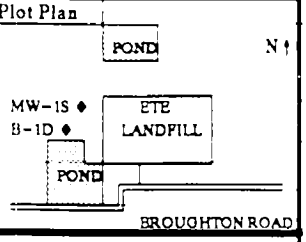
BORING NO. B–1D

Contractor: SJB Services, Inc.
Driller: Randy Steiner
Inspector: N.A. Smith
Rig Type/Method: CME–550 / 6.25" HSA

PROJECT NAME: ETE Sanitation
PROJECT NUMBER: SY327.05

Sheet of
Location: West of landfill

Plot Plan



GROUNDWATER OBSERVATIONS

WATER LEVEL				
DATE				
TIME				

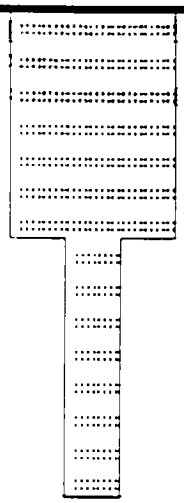
Weather Foggy, 35–40 degrees

Date/Time Start March 25, 1993 / 0950

Date/Time Finish April 1, 1993 / 1600

Photovac Reading	Sample I.D.	Sample Depth	Percent Recovery	SPT	FIELD IDENTIFICATION OF MATERIAL
		77		13	Gray fine–medium SAND, some pebbles, little silt (moist–wet)
20.2			25	19	Gray SILT, some fine sand and pebbles (moist–wet)
		78		20	water concentrated around pebbles, remainder slightly moist
				30	
		79		24	
				A	
		80		A	
19.6			62.5	10	
		81		12	
				13	
		82		14	
6.0			75	16	
		83		16	
				18	
		84		19	
					Boring terminated at 84 feet.
		85			
		86			
		87			
		88			
		89			
		90			
		91			
		92			
		93			
		94			
		95			
		96			

WELL SCHEMATIC



STANDARD PENETRATION TEST
SS = SPLIT SPOON
A = AUGER CUTTINGS
C = CORED

Summary: 0–4' Sand; 4–8.5' Silt; 8.5–36.5' Sand; 36.5–38.5' Sand and Gravel; 38.5–42.5' Sand; 42.5–44.5' Clay; 44.5–50' Sand; 50–52' Silt; 52–55.5' Sand; 55.5–64.5' Silt; 64.5–77' Sand; 77–84' Silt

ENGINEERING–SCIENCE DRILLING RECORD

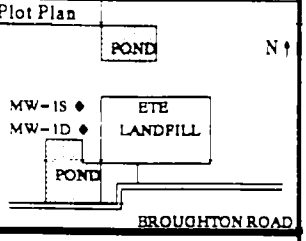
BORING NO. MW–1D

Contractor: SJB Services, Inc.
Driller: Randy Steiner
Inspector: N.A. Smith
Rig Type/Method: CME–550 / 6.25" HSA

PROJECT NAME: ETE Sanitation
PROJECT NUMBER: SY327.05

Sheet of
Location: West of landfill

Plot Plan



GROUNDWATER OBSERVATIONS

WATER LEVEL	4.30' (TOC)	4.8' (TOC)	5.4' (TOC)
DATE	4/9/93	4/20/93	5/10/93
TIME	1625	1300	1100

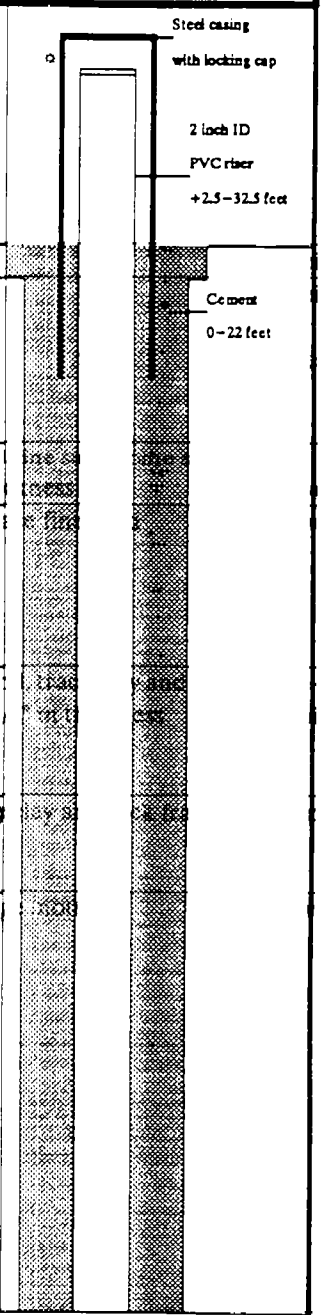
Weather Foggy, 35–40 degrees

Date/Time Start March 25, 1993 / 0950

Date/Time Finish April 1, 1993 / 1600

Photovac Reading	Sample I.D.	Sample Depth	Percent Recovery	SPT	FIELD IDENTIFICATION OF MATERIAL
		0		SS	
2.6			75	2	Brown fine SAND, little silt (moist)
		1		5	Brown fine to medium SAND (moist)
				4	
		2		3	(wet at 2 feet)
2.9			100	3	
		3		5	
				5	Brown fine to medium SAND and fine sand,some silt, layered
		4		5	layers range from 1/4" – 1" in thickness (moist–wet)
3.3	S1		100	2	Brown–gray SILT, some clay, trace fine sand (moist–wet)
	S1	5		2	
	S1			2	
	S1	6		2	
4.4	S1		87.5	2	
	S1	7		3	Brown–gray SILT, some fine sand, trace clay and brown fine–
	S1			7	medium SAND, layered 1/4" – 1/2" in thickness (moist)
	S1	8		11	
4.6	S1		87.5	3	
	S1	9		4	Gray fine SAND and SILT, trace clay and rock fragments (moist)
	S1			8	
	S1	10		8	
3.1	GS		75	2	Gray fine SAND, some silt, orange mottling (wet)
	GS	11		2	
	GS			2	
	GS	12		3	
3.2	GS		87.5	2	
	GS	13		3	
	GS			4	
	GS	14		5	
2.7	GS		75	3	
	GS	15		3	
	GS			4	
	GS	16		6	
3.0	GS		62.5	5	

WELL SCHEMATIC



STANDARD PENETRATION TEST
SS = SPLIT SPOON
A = AUGER CUTTINGS
C = CORED

Summary: 0–1' Silt; 1–16 Sand, some silt, little gravel–pebbles
S1 – Analytical sample collected from 4 – 10 feet
GS – Grain size sample collected from 10–18 feet

ENGINEERING–SCIENCE DRILLING RECORD

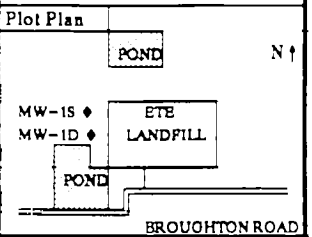
BORING NO. MW–1D

Contractor: SJB Services, Inc.
Driller: Randy Steiner
Inspector: N.A. Smith
Rig Type/Method: CME–550 / 6.25" HSA

PROJECT NAME: ETE Sanitation
PROJECT NUMBER: SY327.05

Sheet of
Location: West of landfill

Plot Plan



GROUNDWATER OBSERVATIONS

WATER LEVEL	4.30' (TOC)	4.8' (TOC)	5.4' (TOC)
DATE	4/9/93	4/20/93	5/10/93
TIME	1625	1300	1100

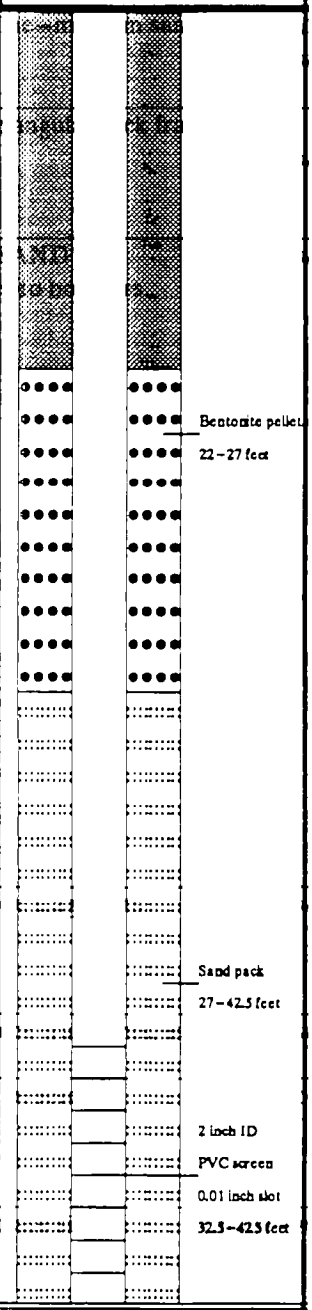
Weather Foggy, 35–40 degrees

Date/Time Start March 25, 1993 / 0950

Date/Time Finish April 1, 1993 / 1600

Photovac Reading	Sample I.D.	Sample Depth	Percent Recovery	SPT	FIELD IDENTIFICATION OF MATERIAL
	GS	17		5	Gray fine SAND, some silt with fine–medium sand seams (1/2"
	GS			7	thick) at 16.5 feet and 17 feet (wet)
	GS	18		8	
0.9			25	4	Gray fine to medium SAND, some angular rock fragments,
		19		4	little silt (wet)
				12	
		20		27	
2.6			50	14	Greenish–gray medium–coarse SAND and (wet)
		21		10	sandstone fragments from pebbles to boulders
				9	
		22		10	
3.1			25	16	
		23		50	
				25	
		24		15	
				A	
		25		A	
5.4			50	27	
		26		29	
				16	
		27		13	
3.6			50	25	
		28		35	
				27	
		29		19	
				A	
		30		A	
1.4			50	16	Gray medium SAND and sandstone fragments (wet)
		31		19	
				31	
		32		24	
3.0			62.5	33	Gray fine–medium SAND and rock fragments, trace silt (wet)
		33		89	
				31	Gray fine SAND, some silt, trace pebbles (moist)
		34		28	
				A	
		35		A	
7.4			62.5	24	Gray fine SAND, some pebbles, trace silt (moist–wet)
		36		23	
				21	

WELL SCHEMATIC



STANDARD PENETRATION TEST
SS = SPLIT SPOON
A = AUGER CUTTINGS
C = CORED

Summary: 16–36.5' Sand, some silt, little gravel–pebbles

ENGINEERING–SCIENCE DRILLING RECORD

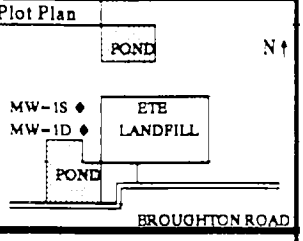
BORING NO. MW–1D

Contractor: SJB Services, Inc.
Driller: Randy Steiner
Inspector: N.A. Smith
Rig Type/Method: CME–550 / 6.25" HSA

PROJECT NAME: ETE Sanitation
PROJECT NUMBER: SY327.05

Sheet of
Location: West of landfill

Plot Plan



GROUNDWATER OBSERVATIONS

WATER LEVEL	4.30' (TOC)	4.8' (TOC)	5.4' (TOC)	
DATE	4/9/93	4/20/93	5/10/93	
TIME	1625	1300	1100	

Weather: Foggy, 35–40 degrees
Date/Time Start: March 25, 1993 / 0950
Date/Time Finish: April 1, 1993 / 1600

Photovac Reading	Sample I.D.	Sample Depth	Percent Recovery	SPT	FIELD IDENTIFICATION OF MATERIAL	WELL SCHEMATIC
		37		33	Gray coarse SAND and fine–medium GRAVEL (wet)	
				36		
		38		26		
				21		
		39		40	Gray medium SAND and PEBBLES (wet)	
				A		
		40		A		
0.0			75	21	Gray fine–medium SAND and cobble fragments (wet)	
		41		17		
				16		
		42		24		
0.0	S1		62.5	21		
	S1	43		23	Gray CLAY, some silt and pebbles (moist)	Well bottom: 42.5 feet
	S1			98		
	S1	44		24		
				A		
					Boring terminated at 44.5 feet	

STANDARD PENETRATION TEST
SS = SPLIT SPOON
A = AUGER CUTTINGS
C = CORED

Summary: 36.5–40' Sand and Gravel; 40–42'5' Sand; 42.5–44.5' Clay

ENGINEERING–SCIENCE DRILLING RECORD

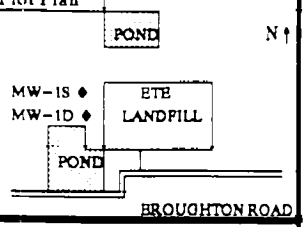
BORING NO. MW–1S

Contractor: SJB Services, Inc.
Driller: Randy Steiner
Inspector: N.A. Smith
Rig Type/Method: CME–550 / 4.25" HSA

PROJECT NAME: ETE Sanitation
PROJECT NUMBER: SY327.05

Sheet of
Location: West of landfill

Plot Plan



GROUNDWATER OBSERVATIONS

WATER LEVEL	4.30' (TOC)	4.8' (TOC)	5.4' (TOC)
DATE	4/9/93	4/20/93	5/10/93
TIME	1625	1300	1100

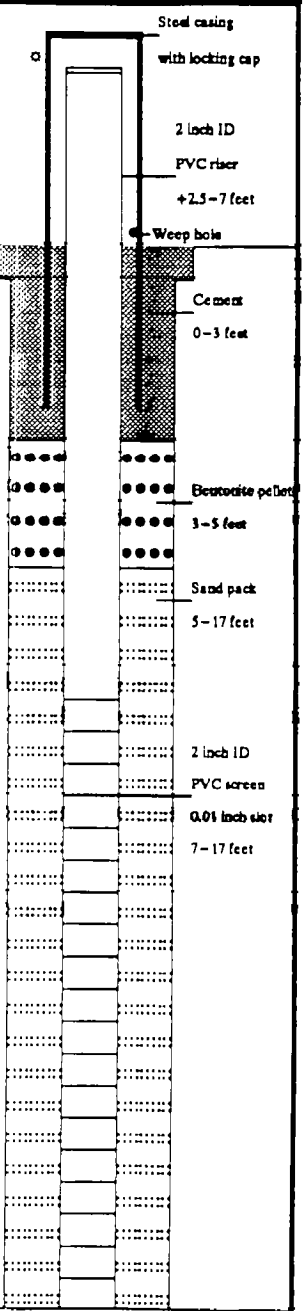
Weather Cloudy, 35 degrees

Date/Time Start March 24, 1993 / 1400

Date/Time Finish March 24, 1993 / 1630

Photovac Reading	Sample I.D.	Sample Depth	Percent Recovery	SPT	FIELD IDENTIFICATION OF MATERIAL
		0		SS	
2.6			75	2	Brown fine SAND, little silt (moist)
		1		5	Brown fine to medium SAND (moist)
				4	
		2		3	(wet at 2 feet)
2.9			100	3	
		3		5	
				5	Brown fine to medium SAND and fine sand,some silt, layered
		4		5	layers range from 1/4" – 1" in thickness (moist–wet)
3.3	S1		100	2	Brown–gray SILT, some clay, trace fine sand (moist–wet)
	S1	5		2	
	S1			2	
	S1	6		2	
4.4	S1		87.5	2	
	S1	7		3	Brown–gray SILT, some fine sand, trace clay and brown fine–
	S1			7	medium SAND, layered 1/4" – 1/2" in thickness (moist)
	S1	8		11	
4.6	S1		87.5	3	
	S1	9		4	Gray fine SAND and SILT, trace clay and rock fragments (moist)
	S1			8	
	S1	10		8	
3.1	GS		75	2	Gray fine SAND, some silt, orange mottling (wet)
	GS	11		2	
	GS			2	
	GS	12		3	
3.2	GS		87.5	2	
	GS	13		3	
	GS			4	
	GS	14		5	
2.7	GS		75	3	
	GS	15		3	
	GS			4	
	GS	16		6	
3.0	GS		62.5	5	

WELL SCHEMATIC



STANDARD PENETRATION TEST
SS = SPLIT SPOON
A = AUGER CUTTINGS
C = CORED

Summary: 0–1' Silt; 1–18 Sand, some silt, little gravel–pebbles
S1 – Analytical sample collected from 4 – 10 feet
GS – Grain size sample collected from 10–18 feet

ENGINEERING–SCIENCE DRILLING RECORD

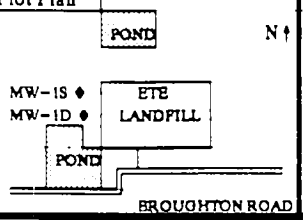
BORING NO. MW–1S

Contractor: SJB Services, Inc.
Driller: Randy Steiner
Inspector: N.A. Smith
Rig Type/Method: CME–550 / 4.25" HSA

PROJECT NAME: ETE Sanitation
PROJECT NUMBER: SY327.05

Sheet of
Location: West of landfill

Plot Plan



GROUNDWATER OBSERVATIONS

WATER LEVEL	4.30' (TOC)	4.8' (TOC)	5.4' (TOC)
DATE	4/9/93	4/20/93	5/10/93
TIME	1625	1300	1100

Weather Cloudy, 35 degrees

Date/Time Start March 24, 1993 / 1400

Date/Time Finish March 24, 1993 / 1630

Photovac Reading	Sample I.D.	Sample Depth	Percent Recovery	SPT	FIELD IDENTIFICATION OF MATERIAL	WELL SCHEMATIC
	GS	17		5	Gray fine SAND, some silt with fine–medium sand seams (1/2" thick) at 16.5 feet and 17 feet (wet)	Well bottom: 17 feet
	GS			7		
	GS	18		8		
					Boring terminated at 18 feet.	
		19				
		20				
		21				
		22				
		23				
		24				
		25				
		26				
		27				
		28				
		29				
		30				
		31				
		32				
		33				
		34				
		35				
		36				

STANDARD PENETRATION TEST
SS = SPLIT SPOON
A = AUGER CUTTINGS
C = CORED

Summary: 0–1' Silt; 1–16 Sand, some silt, little gravel–pebbles
S1 – Analytical sample collected from 4 – 10 feet
GS – Grain size sample collected from 10–18 feet

ENGINEERING–SCIENCE DRILLING RECORD

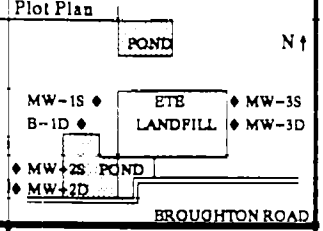
BORING NO. MW–2D

Contractor: SJB Services, Inc.
Driller: Randy Steiner
Inspector: N.A. Smith
Rig Type/Method: CME–550 / 6.25" HSA

PROJECT NAME: ETE Sanitation
PROJECT NUMBER: SY327.05

Sheet of
Location: West of landfill

Plot Plan



GROUNDWATER OBSERVATIONS

WATER LEVEL	–	11.9' TOC	13.0' TOC	
DATE	4/9/93	4/20/93	5/10/93	
TIME	–	–	1400	

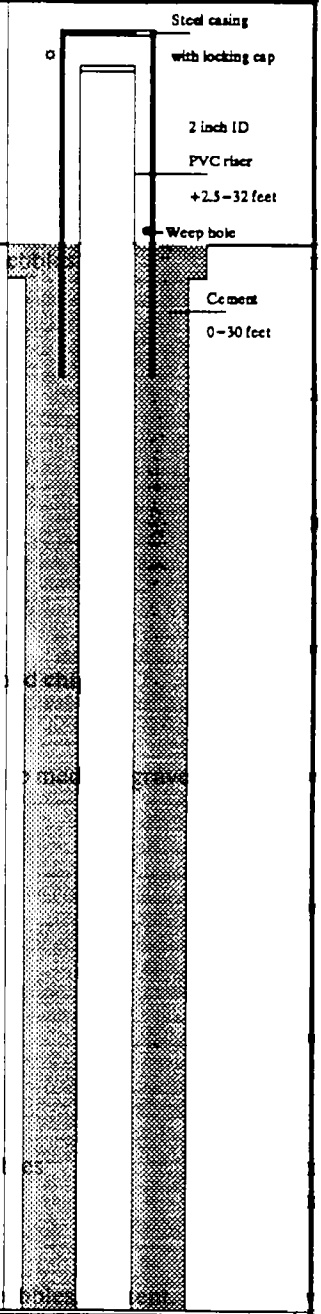
Weather Cloudy, 50s

Date/Time Start April 8, 1993 1615

Date/Time Finish April 9, 1993 1500

Photovac Reading	Sample I.D.	Sample Depth	Percent Recovery	SPT	FIELD IDENTIFICATION OF MATERIAL	
		0		SS		
0			62.5	1	Brown SILT, little fine sand and pebbles	(sl. moist)
		1		2		
				2		
		2		2		
0			75	3	as above	(dry)
		3		5		
				17		
		4		13		
0			50	4	as above	(moist)
		5		10		
				4		
	S1	6		2		
0	S1		50	2	as above	(wet)
	S1	7		1	as above, burnt or decomposed wood chips	
	S1			2		
	S1	8		2		
0	S1		25	2	Brown medium SAND, some fine to medium gravel	(wet)
	S1	9		1		
	S1			1		
	S1	10		3		
0	S1		25	2	as above	(wet)
	S1	11		2		
	S1			2		
	S1	12		4		
0	S1		12.5	5	as above	(wet)
	S1	13		5		
	S1			4		
	S1	14		5		
0	S1, GS		75	6	Brown SILT, some clay, trace pebbles	(moist)
	S1, GS	15		5	as above, gray	(moist)
	S1, GS			6		
	S1, GS	16		7		
0	S1, GS		75	6	Gray SILT, little fine sand, trace pebbles, dilatent.	(wet)

WELL SCHEMATIC



STANDARD PENETRATION TEST
SS = SPLIT SPOON
A = AUGER CUTTINGS
C = CORED

Summary: 0–8' Silt; 8–14' Sand; 14–18.5 Silt; 18.5–22 interlayered Silt and Sand

S1 – Analytical sample collected from 6 – 22 feet
GS – Grain size sample collected from 14–18 feet

ENGINEERING–SCIENCE DRILLING RECORD

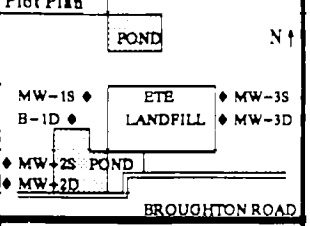
BORING NO. MW–2D

Contractor: SJB Services, Inc.
Driller: Randy Steiner
Inspector: N.A. Smith
Rig Type/Method: CME–550 / 6.25" HSA

PROJECT NAME: ETE Sanitation
PROJECT NUMBER: SY327.05

Sheet of
Location: West of landfill

Plot Plan



GROUNDWATER OBSERVATIONS

WATER LEVEL	–	11.9 TOC	13.0' TOC	
DATE	4/9/93	4/20/93	5/10/93	
TIME	–	–	1400	

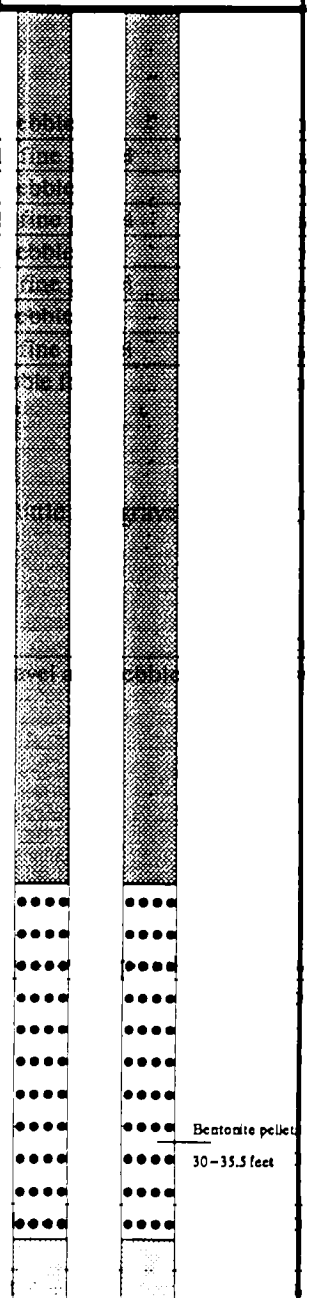
Weather Cloudy, 50s

Date/Time Start April 8, 1993 1615

Date/Time Finish April 9, 1993 1500

Photovac Reading	Sample I.D.	Sample Depth	Percent Recovery	SPT	FIELD IDENTIFICATION OF MATERIAL	
	S1, GS	17		8		
	S1, GS			13		
	S1, GS	18		11		
0	S1		87.5	6	Brown SILT, little fine sand, trace pebbles	(moist)
	S1	19		6	Brown fine to medium SAND, little fine gravel	(wet)
	S1			9	Brown SILT, little fine sand, trace pebbles	(moist)
	S1	20		17	Brown fine to medium SAND, little fine gravel	(wet)
0	S1		75	9	Brown SILT, little fine sand, trace pebbles	(sl. moist)
	S1	21		13	Brown fine to medium SAND, little fine gravel	(wet)
	S1			10	Brown SILT, little fine sand, trace pebbles	(sl. moist)
	S1	22		11	Brown fine to medium SAND, little fine gravel	(wet)
0			62.5	11	Brown SILT, little fine sand and cobble frag.	(moist)
		23		11		
				15		
		24		16		
0			50	18	Brown–gray SILT, some fine sand, little fine gravel	(moist)
		25		19	and pebbles, tightly packed	
				18		
		26		13		
0			75	16	as above, gray	(moist)
		27		23	Brown fine SAND, little medium gravel and pebble	(mst–wet)
				23	frag., trace silt	
		28		12		
		29				
N/A			0	13	no recovery	
		30		14		
				11		
		31		13		
0			62.5	9	Gray fine SAND, some silt, little fine gravel–pebbles	(mst–wet)
		32		10	Gray SILT, little clay and pebbles	(moist)
				13		
		33		14		
		34				
0			62.5	6	as above	(moist)
		35		12		
				16	Gray SILT and fine SAND, little pebbles	(moist)
		36		17		
0			75	19	Gray SILT, little sand and pebbles, trace clay	(mst–wet)

WELL SCHEMATIC



STANDARD PENETRATION TEST
SS = SPLIT SPOON
A = AUGER CUTTINGS
C = CORED

Summary: 0–8' Silt; 8–14' Sand; 14–18.5 Silt; 18.5–22 interlayered Silt and Sand 22–26.5' Silt: 26.5–31.5' Sand; 31.5–35' Silt; 35–36' Silt and Sand; 36–37 Silt

S1 – Analytical sample collected from 6 – 22 feet

GS – Grain size sample collected from 14–18 feet

ENGINEERING–SCIENCE DRILLING RECORD

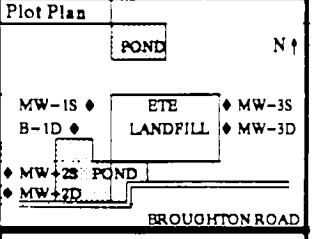
BORING NO. MW–2D

Contractor: SJB Services, Inc.
Driller: Randy Steiner
Inspector: N.A. Smith
Rig Type/Method: CME–550 / 6.25" HSA

PROJECT NAME: ETE Sanitation
PROJECT NUMBER: SY327.05

Sheet of
Location: West of landfill

Plot Plan



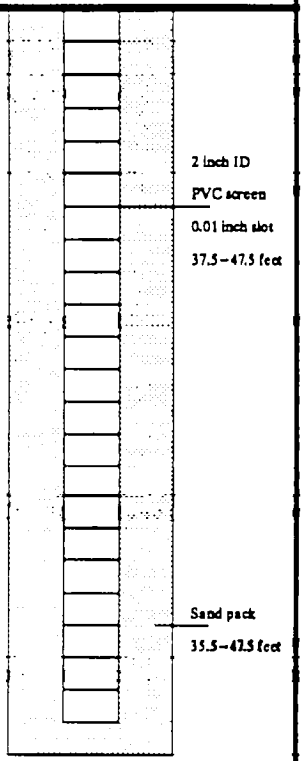
GROUNDWATER OBSERVATIONS

WATER LEVEL	–	11.9' TOC	13.0' TOC
DATE	4/9/93	4/20/93	5/10/93
TIME	–	–	1400

Weather Cloudy, 50s
Date/Time Start April 8, 1993 1615
Date/Time Finish April 9, 1993 1500

Photovac Reading	Sample I.D.	Sample Depth	Percent Recovery	SPT	FIELD IDENTIFICATION OF MATERIAL	
		37		20		
				21	Gray fine–medium SAND, some silt	(mst–wet)
		38		21	Gray SILT, little fine sand–pebbles, trace clay	(mst–wet)
		39				
0			25	6	Gray fine SAND, some silt	(wet)
		40		7		
				9		
		41		11		
0			37.5	13	Gray fine–medium SAND, trace pebbles–cobbles	(wet)
		42		14		
				15		
		43		20		
		44				
0			62.5	5	Gray fine–medium SAND and SILT, little pebbles	(mst–wet)
		45		10		
				13		
		46		12		
0			75	7	as above	(mst–wet)
		47		16	Gray SILT, little fine sand and pebbles, trace clay	(sl. moist)
				14		
		48		20		
		49				
		50				
		51				
		52				
		53				
		54				
		55				
		56				

WELL SCHEMATIC



Well bottom: 47.5 feet

STANDARD PENETRATION TEST
SS = SPLIT SPOON
A = AUGER CUTTINGS
C = CORED

Summary: 0–8' Silt; 8–14' Sand; 14–18.5 Silt; 18.5–22 interlayered Silt and Sand 22–26.5' Silt: 26.5–31.5' Sand; 31.5–35' Silt; 35–36' Silt and Sand; 36–37 Silt; 37–37.5' Sand; 37.5–39' Silt; 39–44' Sand; 44–46.5' Sand and Silt; 46.5–48' Silt

ENGINEERING–SCIENCE DRILLING RECORD

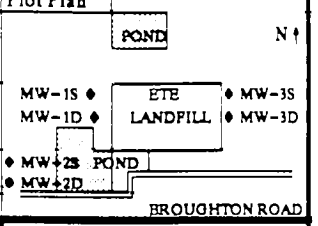
BORING NO. MW–2S

Contractor: SJB Services, Inc.
Driller: Randy Steiner
Inspector: N.A. Smith
Rig Type/Method: CME–550 / 4.25" HSA

PROJECT NAME: ETE Sanitation
PROJECT NUMBER: SY327.05

Sheet of
Location: West of landfill

Plot Plan



GROUNDWATER OBSERVATIONS

WATER LEVEL	10.79' (TOC)	11.8' (TOC)	12.1' (TOC)	
DATE	4/9/93	4/20/93	5/10/93	
TIME	1525	–	1400	

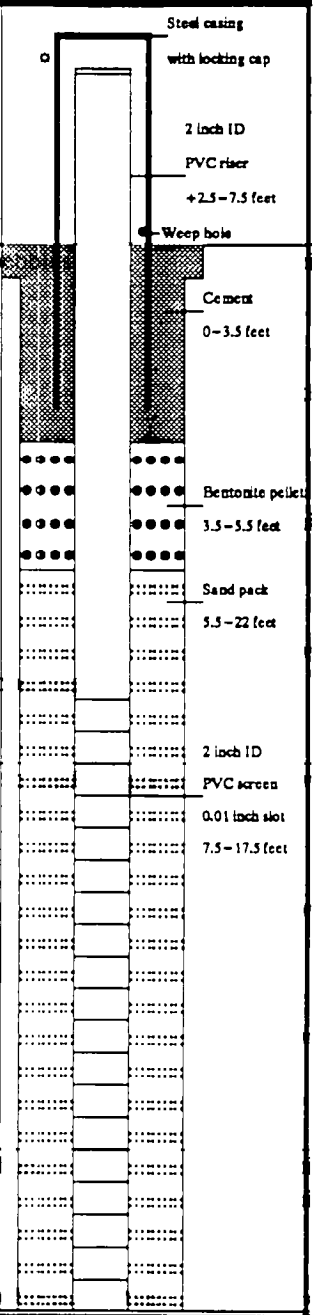
Weather Sunny, 60s

Date/Time Start April 8, 1993 / 1310

Date/Time Finish April 8, 1993 / 1550

Photovac Reading	Sample I.D.	Sample Depth	Percent Recovery	SPT	FIELD IDENTIFICATION OF MATERIAL	
		0		SS		
0			62.5	1	Brown SILT, little fine sand and pebbles	(sl. moist)
		1		2		
				2		
		2		2		
0			75	3	as above	(dry)
		3		5		
				17		
		4		13		
0			50	4	as above	(moist)
		5		10		
				4		
	S1	6		2		
0	S1		50	2	as above	(wet)
	S1	7		1	as above, burnt or decomposed wood chips	
	S1			2		
	S1	8		2		
0	S1		25	2	Brown medium SAND, some fine to medium gravel	(wet)
	S1	9		1		
	S1			1		
	S1	10		3		
0	S1		25	2	as above	(wet)
	S1	11		2		
	S1			2		
	S1	12		4		
0	S1		12.5	5	as above	(wet)
	S1	13		5		
	S1			4		
	S1	14		5		
0	S1, GS		75	6	Brown SILT, some clay, trace pebbles	(moist)
	S1, GS	15		5	as above, gray	(moist)
	S1, GS			6		
	S1, GS	16		7		
0	S1, GS		75	6	Gray SILT, little fine sand, trace pebbles, dilatant	(wet)

WELL SCHEMATIC



STANDARD PENETRATION TEST
SS = SPLIT SPOON
A = AUGER CUTTINGS
C = CORED

Summary: 0–8' Silt; 8–14' Sand; 14–18.5 Silt; 18.5–22 interlayered Silt and Sand

S1 – Analytical sample collected from 6 – 22 feet
GS – Grain size sample collected from 14–18 feet

ENGINEERING–SCIENCE DRILLING RECORD

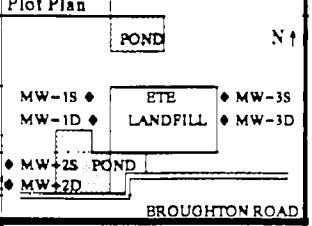
BORING NO. MW–2S

Contractor: SJB Services, Inc.
Driller: Randy Steiner
Inspector: N.A. Smith
Rig Type/Method: CME–550 / 4.25" HSA

PROJECT NAME: ETE Sanitation
PROJECT NUMBER: SY327.05

Sheet of
Location: West of landfill

Plot Plan



GROUNDWATER OBSERVATIONS

WATER LEVEL	10.79' (TOC)	11.8' (TOC)	12.1' (TOC)
DATE	4/9/93	4/20/93	5/10/93
TIME	1525	–	1400

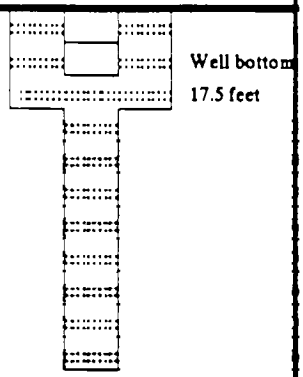
Weather Sunny, 60s

Date/Time Start April 8, 1993 / 1310

Date/Time Finish April 8, 1993 / 1550

Photovac Reading	Sample I.D.	Sample Depth	Percent Recovery	SPT	FIELD IDENTIFICATION OF MATERIAL	
	S1, GS	17		8		
	S1, GS			13		
	S1, GS	18		11		
0	S1		87.5	6	Brown SILT, little fine sand, trace pebbles	(moist)
	S1	19		6	Brown fine to medium SAND, little fine gravel	(wet)
	S1			9	Brown SILT, little fine sand, trace pebbles	(moist)
	S1	20		17	Brown fine to medium SAND, little fine gravel	(wet)
0	S1		75	9	Brown SILT, little fine sand, trace pebbles	(sl. moist)
	S1	21		13	Brown fine to medium SAND, little fine gravel	(wet)
	S1			10	Brown SILT, little fine sand, trace pebbles	(sl. moist)
	S1	22		11	Brown fine to medium SAND, little fine gravel	(wet)
					Boring terminated at 17.5 feet.	

WELL SCHEMATIC



STANDARD PENETRATION TEST
SS = SPLIT SPOON
A = AUGER CUTTINGS
C = CORED

Summary: 0–8' Silt; 8–14' Sand; 14–18.5 Silt; 18.5–22 interlayered Silt and Sand

S1 – Analytical sample collected from 6 – 22 feet
GS – Grain size sample collected from 14–18 feet

ENGINEERING–SCIENCE
DRILLING RECORD

BORING NO. MW–2SA

Contractor: SJB Services, Inc.
Driller: Randy Steiner
Inspector: N.A. Smith
Rig Type/Method: CME–550 / 4.25" HSA

PROJECT NAME: ETE Sanitation
PROJECT NUMBER: SY327.05

Sheet 1 of 1
Location: South of landfill

GROUNDWATER OBSERVATIONS

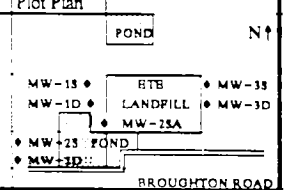
WATER LEVEL	NA			
DATE				
TIME				

Weather

Date/Time Start March 22, 1993 / 1400

Date/Time Finish March 22, 1993 / 1510

Plot Plan



Photovac Reading	Sample I.D.	Sample Depth	Percent Recovery	SPT	FIELD IDENTIFICATION OF MATERIAL	WELL SCHEMATIC
		0		SS		
0.5			50	2	Brown SILT, little fine sand (moist)	
		1		2		
				4		
		2		6		
0.6			75	9	Brown F SAND, little gravel (dry)	
		3		7		
				6		
		4		6		
0			0	5	No recovery 4 – 8 ft bgs	Cement/bentonite Grout
		5		4		
				3		
		6		5		
0			0	12		
		7		5		
				3		
		8		4		
0			12	4	Brown F SAND, some gravel 8 – 14 ft bgs (moist/wet)	8 – 14 ft bgs
		9		2		
				2		
		10		2		
0			75	4		
		11		3		
				5		
		12		9		
0			67	16		
		13		13		
				13		
		14		10		
0			67	5	Brown–grey F SAND, some silt 14 – 15 ft bgs (moist/wet)	14 – 15 ft bgs
		15		12		
				15		
		16		8	Brown F to M SAND and GRAVEL 15 – 17 ft bgs (moist/wet)	GRAVEL 15 – 17
0			75	8		
		17		9		
				11		
		18		13	Brown–Grey SILT and SAND interlayered with	
				4	F to M SAND to 20 ft bgs (moist/wet)	
		19		4		
				6		
		20		9		

STANDARD PENETRATION TEST
SS = SPLIT SPOON
A = AUGER CUTTINGS
C = CORED

Summary: Boring from ground surface to 18 ft bgs
Final split spoon 18 – 20 ft bgs
Boring abandoned with cement/bentonite grout 3/23/93

tha\sy327.04\mw2salog

ENGINEERING–SCIENCE DRILLING RECORD

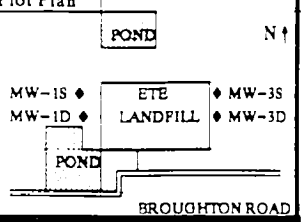
BORING NO. MW–3S

Contractor: SJB Services, Inc.
Driller: Randy Steiner
Inspector: N.A. Smith
Rig Type/Method: CME–550 / 4.25" HSA

PROJECT NAME: ETE Sanitation
PROJECT NUMBER: SY327.05

Sheet of
Location: West of landfill

Plot Plan



GROUNDWATER OBSERVATIONS

WATER LEVEL	10.95' (TOC)	11.9' (TOC)	13.00' (TOC)
DATE	4/9/93	4/20/93	5/10/93
TIME	1555	–	1000

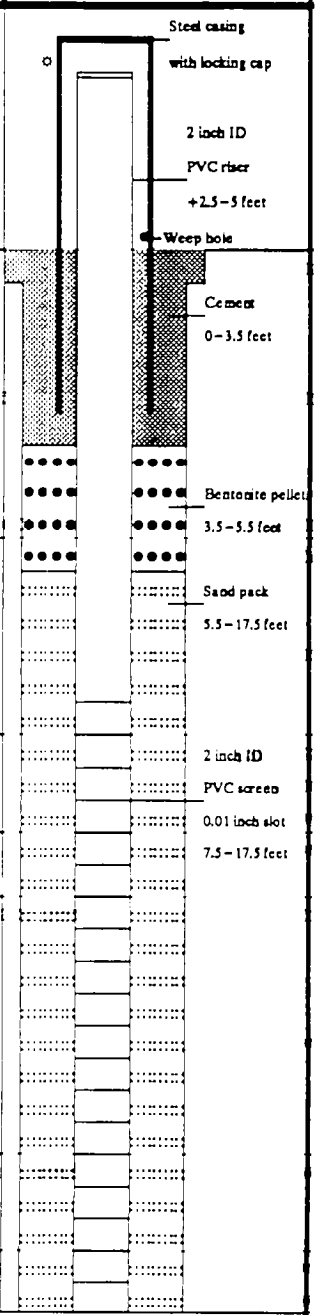
Weather Sunny, 50s

Date/Time Start April 5, 1993 / 1310

Date/Time Finish April 5, 1993 / 1550

Photovac Reading	Sample I.D.	Sample Depth	Percent Recovery	SPT	FIELD IDENTIFICATION OF MATERIAL	
		0		SS		
0			50	1	Brown SILT, little fine sand	(moist)
		1		2		
				1		
		2		2		
0			50	10	as above, with fragments of cobble	(moist)
		3		7		
				16		
		4		10		
0			75	7	Brown SILT, little fine sand and rock frag.	(moist)
		5		1	Brown CLAY, little–some silt	(moist)
				3		
		6		2		
0			100	3	as above	(moist)
		7		5		
				8		
		8		9	Brown SILT, some clay	(sl. moist)
0	GS		100	3	as above	(moist)
	GS	**9**		1	Brown SILT, some fine sand	(wet)
	GS			1	Brown fine SAND	(wet)
	GS	**10**		2		
0			100	3	Brown SILT, little–some sand, trace pebbles	(sl. moist)
		11		10		
				16		
		12		12		
0			0	8	no recovery	(wet)
		13		9		
				11		
		14		20		
0			100	7	Brown SILT and fine SAND, some pebbles	(mst.–wet)
		15		9		
				12		
		16		10	Gray SILT, little pebbles	(wet)
0			100	8	Gray SILT, little pebbles	(mst.–wet)

WELL SCHEMATIC



STANDARD PENETRATION TEST
SS = SPLIT SPOON
A = AUGER CUTTINGS
C = CORED

Summary: 0–4.5' Silt; 4.5–7.5' Clay; 7.5–9' Silt; 9–10' Sand; 10–14' Silt
14–15.5' Silt and Sand; 15.5–17.5 Silt

GS – Grain size sample collected from 8–10 feet

ENGINEERING–SCIENCE DRILLING RECORD

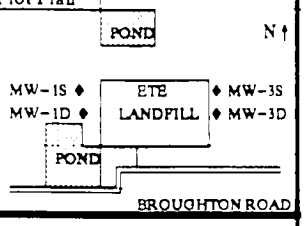
BORING NO. MW–3S

Contractor: SJB Services, Inc.
Driller: Randy Steiner
Inspector: N.A. Smith
Rig Type/Method: CME–550 / 4.25" HSA

PROJECT NAME: ETE Sanitation
PROJECT NUMBER: SY327.05

Sheet of
Location: West of landfill

Plot Plan



GROUNDWATER OBSERVATIONS

WATER LEVEL	10.95' (TOC)	11.9 (TOC)	13.00' (TOC)
DATE	4/9/93	4/20/93	5/10/93
TIME	1555	–	1000

Weather Sunny, 50s

Date/Time Start April 5, 1993 / 1310

Date/Time Finish April 5, 1993 / 1550

Photovac Reading	Sample I.D.	Sample Depth	Percent Recovery	SPT	FIELD IDENTIFICATION OF MATERIAL	WELL SCHEMATIC
		17		9	Gray SILT, little pebbles (mst.–wet)	
				11		
				13	Boring terminated at 17.5 feet.	Well bottom: 17.5 feet

STANDARD PENETRATION TEST
SS = SPLIT SPOON
A = AUGER CUTTINGS
C = CORED

Summary: 0–4.5' Silt; 4.5–7.5' Clay; 7.5–9' Silt; 9–10' Sand; 10–14' Silt
14–15.5' Silt and Sand; 15.5–17.5 Silt

S1 – Analytical sample collected from 4 – 10 feet
GS – Grain size sample collected from 10–18 feet

ENGINEERING–SCIENCE DRILLING RECORD

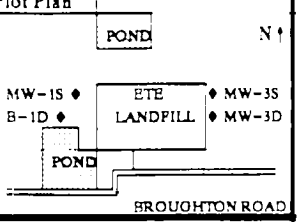
BORING NO. MW–3D

Contractor: SJB Services, Inc.
Driller: Randy Steiner
Inspector: N.A. Smith
Rig Type/Method: CME–550 / 6.25" HSA

PROJECT NAME: ETE Sanitation
PROJECT NUMBER: SY327.05

Sheet of 5
Location: West of landfill

Plot Plan



GROUNDWATER OBSERVATIONS

WATER LEVEL	12.68' (TOC)	13.1' (TOC)	14.00' (TOC)
DATE	4/9/93	4/20/93	5/10/93
TIME	1550	–	1000

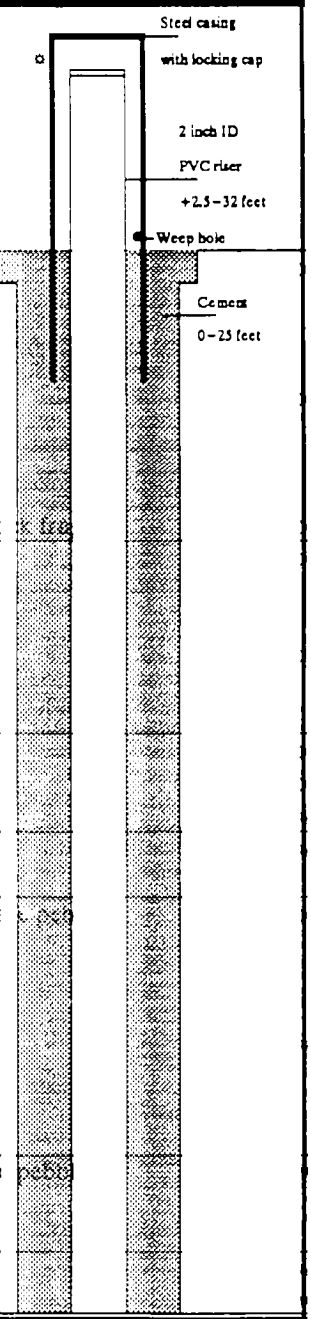
Weather Sunny, 50s

Date/Time Start April 6, 1993 0820

Date/Time Finish April 7, 1993 1730

Photovac Reading	Sample I.D.	Sample Depth	Percent Recovery	SPT	FIELD IDENTIFICATION OF MATERIAL	
		0		SS		
0			50	1	Brown SILT, little fine sand	(moist)
		1		2		
				1		
		2		2		
0			50	10	as above, with fragments of cobble	(moist)
		3		7		
				16		
		4		10		
0			75	7	Brown SILT, little fine sand and rock frag.	(moist)
		5		1	Brown CLAY, little–some silt	(moist)
				3		
		6		2		
0			100	3	as above	(moist)
		7		5		
				8		
		8		9	Brown SILT, some clay	(sl. moist)
0			100	3	as above	(moist)
		9		1	Brown SILT, some fine sand	(wet)
				1	Brown fine SAND	(wet)
		10		2		
0			100	3	Brown SILT, little–some sand, trace pebbles	(sl. moist)
		11		10		
				16		
		12		12		
0			0	8	no recovery	(wet)
		13		9		
				11		
		14		20		
0			100	7	Brown SILT and fine SAND, some pebbles	(mst.–wet)
		15		9		
				12		
		16		10	Gray SILT, little pebbles	(wet)
0			100	8	Gray SILT, little pebbles	(mst.–wet)

WELL SCHEMATIC



STANDARD PENETRATION TEST
SS = SPLIT SPOON
A = AUGER CUTTINGS
C = CORED

Summary: 0–4.5' Silt; 4.5–7.5' Clay; 7.5–9' Silt; 9–10' Sand; 10–14' Silt; 14–15.5' Silt and Sand; 15.5–20' Silt; 20–37.5' Sand; 37.5–41' Silt; 41–42.5' Sand; 42.5–46' Silt; 46–47.5' Clay; 47.5–61' Silt; 61–61.5' Sand; 61.5–66' Silt; 66–66.5' Sand; 66.5–74' Silt; 74–78' Clay

ENGINEERING–SCIENCE DRILLING RECORD

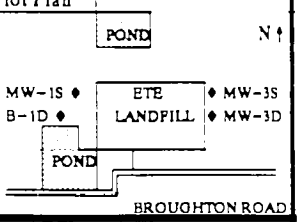
BORING NO. MW–3D

Contractor: SJB Services, Inc.
Driller: Randy Steiner
Inspector: N.A. Smith
Rig Type/Method: CME–550 / 6.25" HSA

PROJECT NAME: ETE Sanitation
PROJECT NUMBER: SY327.05

Sheet of 5
Location: West of landfill

Plot Plan



GROUNDWATER OBSERVATIONS

WATER LEVEL	12.68' (TOC)	13.1' (TOC)	14.00' (TOC)
DATE	4/9/93	4/20/93	5/10/93
TIME	1550	–	1000

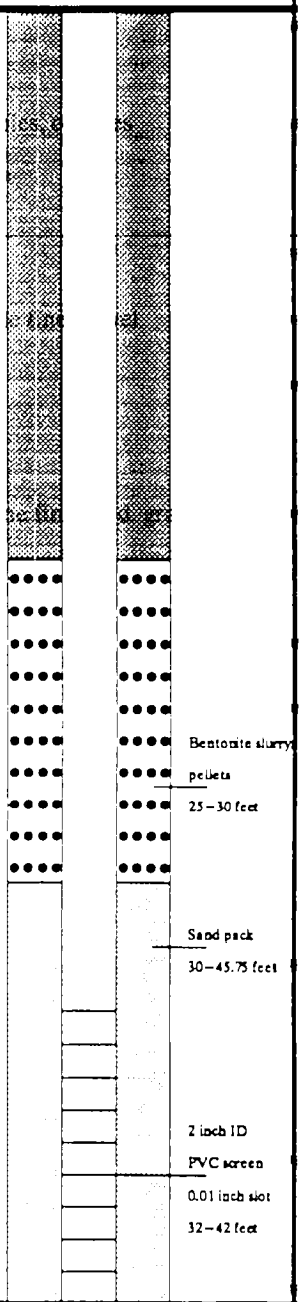
Weather Sunny, 50s

Date/Time Start April 6, 1993 0820

Date/Time Finish April 7, 1993 1730

Photovac Reading	Sample I.D.	Sample Depth	Percent Recovery	SPT	FIELD IDENTIFICATION OF MATERIAL	
		17		9	Gray SILT, little pebbles	(mst.–wet)
				11		
		18		13		
0			37.5	9	Gray SILT, little fine sand and pebbles, cobbles	(mst.–wet)
		19		12		
				22		
		20		21		
0			100	12	Brown medium SAND, trace gravel	(wet)
		21		22		
				32	Brown medium–coarse SAND, little fine gravel	(wet)
		22		37		
0			25	15	as above	(wet)
		23		19		
				20		
		24		19		
0			75	8	Brown medium–coarse SAND, some fine–md. gravel	(wet)
		25		14		
				14		
		26		10		
0			75	8	as above, gray at 26.5 feet	(wet)
		27		11		
				9	Gray fine–medium SAND	(wet)
		28		8		
				A		
		29		A		
n/a			0	10		
		30		9		
				11		
		31		13		
0			100	6	Gray fine–very fine SAND	(wet)
		32		7		
				8		
		33		8		
				A		
		34		A		
0			100	3	as above	(wet)
		35		4		
				5		
		36		7		
0			100	7	as above, gray brown	(wet)

WELL SCHEMATIC



STANDARD PENETRATION TEST
SS = SPLIT SPOON
A = AUGER CUTTINGS
C = CORED

Summary: 0–4.5' Silt; 4.5–7.5' Clay; 7.5–9' Silt; 9–10' Sand; 10–14' Silt; 14–15.5' Silt and Sand; 15.5–20' Silt; 20–37.5' Sand; 37.5–41' Silt; 41–42.5' Sand; 42.5–46' Silt; 46–47.5' Clay; 47.5–61' Silt; 61–61.5' Sand; 61.5–66' Silt; 66–66.5' Sand; 66.5–74' Silt; 74–78' Clay

ENGINEERING–SCIENCE DRILLING RECORD

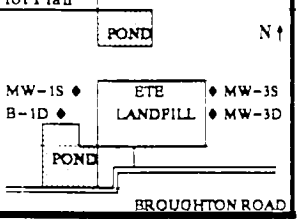
BORING NO. MW–3D

Contractor: SJB Services, Inc.
Driller: Randy Steiner
Inspector: N.A. Smith
Rig Type/Method: CME–550 / 6.25" HSA

PROJECT NAME: ETE Sanitation
PROJECT NUMBER: SY327.05

Sheet of 5
Location: West of landfill

Plot Plan



GROUNDWATER OBSERVATIONS

WATER LEVEL	12.68' (TOC)	13.1' (TOC)	14.00' (TOC)
DATE	4/9/93	4/20/93	5/10/93
TIME	1550	–	1000

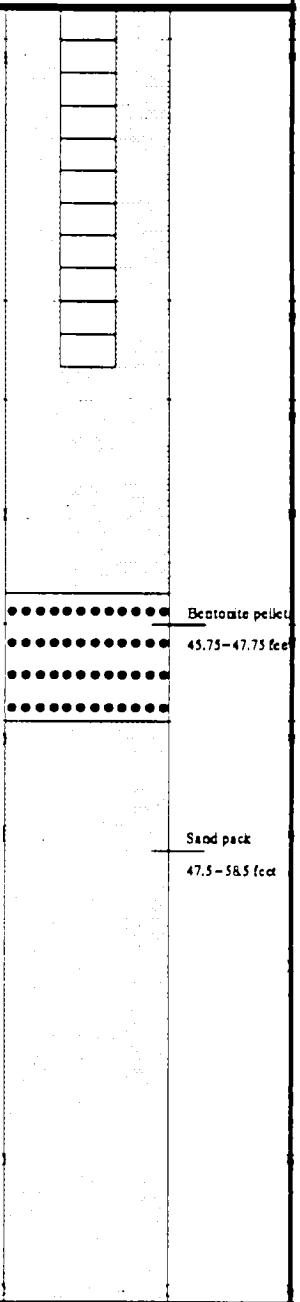
Weather Sunny, 50s

Date/Time Start April 6, 1993 0820

Date/Time Finish April 7, 1993 1730

Photovac Reading	Sample I.D.	Sample Depth	Percent Recovery	SPT	FIELD IDENTIFICATION OF MATERIAL	
		37		8	Gray fine–very fine SAND	(wet)
				12	Gray SILT and very fine SAND, graded	(mst.–wet)
		38		13		
				A		
		39		A		
n/a			0	13		
		40		17		
				20		
		41		18		
0			100	24	Gray fine–medium SAND	(wet)
		42		21		
				23		
		43		25	Gray SILT, trace clay	(wet)
				A		
		44		A		
0			37.5	11	Gray SILT, little pebbles, cobbles, trace clay	(mst.–wet)
		45		12		
				21		
		46		25		
0			75	23	Gray CLAY, little silt	(wet)
		47		25		
				30		
		48		28	Gray SILT, little fine sand and pebbles	(wet)
				A		
		49		A		
0			25	14	Gray SILT, some fine sand, cobble frag.	(wet)
		50		17		
				24		
		51		25		
0			87.5	23	as above	(moist)
		52		20		
				14		
		53		17		
				A		
		54		A		
0			50	14	Gray SILT, little fine sand and pebbles	(mst.wet)
		55		9		
				9		
		56		11		
0			75	16	Gray SILT, little fine sand and pebbles, trace clay, dil.	(mst.wet)

WELL SCHEMATIC



STANDARD PENETRATION TEST
SS = SPLIT SPOON
A = AUGER CUTTINGS
C = CORED

Summary: 0–4.5' Silt; 4.5–7.5' Clay; 7.5–9' Silt; 9–10' Sand; 10–14' Silt 14–15.5' Silt and Sand; 15.5–20' Silt; 20–37.5' Sand; 37.5–41' Silt; 41–42.5' Sand; 42.5–46' Silt; 46–47.5' Clay; 47.5–61' Silt; 61–61.5' Sand; 61.5–66' Silt; 66–66.5' Sand; 66.5–74' Silt; 74–78' Clay

ENGINEERING–SCIENCE DRILLING RECORD

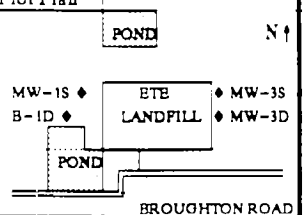
BORING NO. MW–3D

Contractor: SJB Services, Inc.
Driller: Randy Steiner
Inspector: N.A. Smith
Rig Type/Method: CME–550 / 6.25" HSA

PROJECT NAME: ETE Sanitation
PROJECT NUMBER: SY327.05

Sheet of 5
Location: West of landfill

Plot Plan



GROUNDWATER OBSERVATIONS

WATER LEVEL	12.68' (TOC)	13.1' (TOC)	14.00' (TOC)
DATE	4/9/93	4/20/93	5/10/93
TIME	1550	–	1000

Weather Sunny, 50s

Date/Time Start April 6, 1993 0820

Date/Time Finish April 7, 1993 1730

Photovac Reading	Sample I.D.	Sample Depth	Percent Recovery	SPT	FIELD IDENTIFICATION OF MATERIAL		WELL SCHEMATIC
		57		16	Gray SILT, little fine sand and pebbles, trace clay, dil.		
				22			
		58		24			
				A			
		59		A			Bentonite pellet
0			87.5	8	as above	(mst.–wet)	58.5–60 feet
		60		12			
				22			
		61		20			
0			50	21	Gray medium SAND	(wet)	
		62		23	Gray SILT, some pebbles, little sand, trace clay	(mst.–wet)	
				24			Sand pack
		63		28			60–71 feet
				A			
		64		A			
0			50	11	Gray SILT, some pebbles, little sand	(mst.–wet)	
		65		13			
				19			
		66		16			
0			75	14	Gray medium SAND, some pebbles, trace silt	(wet)	
		67		16	Gray SILT, some fine medium sand and pebbles, trace clay	(mst.–wet)	
				19			
		68		17			
				A			
		69		A			
0			37.5	8	as above	(wet)	
		70		7			
				8			
		71		10			
0	S1		62.5	7	Gray SILT, some fine sand, little pebbles and clay	(wet)	
	S1	72		9			
	S1			14			Bentonite pellet
	S1	73		17			71–78 feet
	S1			A			
	S1	74		A			
0	S1		62.5	6	Gray CLAY, little pebbles	(sl. moist)	
	S1	75		9			
	S1			14			
	S1	76		21			
0	S1		50	32	as above	(sl. moist)	

STANDARD PENETRATION TEST
SS = SPLIT SPOON
A = AUGER CUTTINGS
C = CORED

Summary: 0–4.5' Silt; 4.5–7.5' Clay; 7.5–9' Silt; 9–10' Sand; 10–14' Silt 14–15.5' Silt and Sa14–15.5' Silt and Sand; 15.5–17.5 Silt 42.5–46' Silt; 46–47.5' Clay; 47.5–61' Silt; 61–61.5' Sand; 61.5–66' Silt; 66–66.5' Sand; 66.5–74' Silt; 74–78' Clay

S1 – An. samp. collected from 71–78'

ENGINEERING–SCIENCE DRILLING RECORD

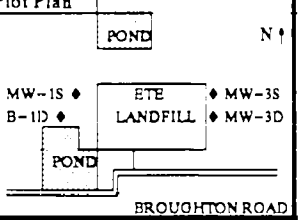
BORING NO. MW–3D

Contractor: SJB Services, Inc.
Driller: Randy Steiner
Inspector: N.A. Smith
Rig Type/Method: CME–550 / 6.25" HSA

PROJECT NAME: ETE Sanitation
PROJECT NUMBER: SY327.05

Sheet of 5
Location: West of landfill

Plot Plan



GROUNDWATER OBSERVATIONS

WATER LEVEL	12.68' (TOC)	13.1' (TOC)	14.00' (TOC)
DATE	4/9/93	4/20/93	5/10/93
TIME	1550	–	1000

Weather Sunny, 50s

Date/Time Start April 6, 1993 0820

Date/Time Finish April 7, 1993 1730

Photovac Reading	Sample I.D.	Sample Depth	Percent Recovery	SPT	FIELD IDENTIFICATION OF MATERIAL	WELL SCHEMATIC
	S1	77		36	Gray CLAY, little pebbles (sl. moist)	
	S1			34		
	S1	78		38		
		79				
		80				
		81				
		82				
		83				
		84				
		85				
		86				
		87				
		88				
		89				
		90				
		91				
		92				
		93				
		94				
		95				
		96				

STANDARD PENETRATION TEST
SS = SPLIT SPOON
A = AUGER CUTTINGS
C = CORED

Summary: 0–4.5' Silt; 4.5–7.5' Clay; 7.5–9' Silt; 9–10' Sand; 10–14' Silt 14–15.5' Silt and Sa14–15.5' Silt and Sand; 15.5–17.5 Silt 42.5–46' Silt; 46–47.5' Clay; 47.5–61' Silt; 61–61.5' Sand; 61.5–66' Silt; 66–66.5' Sand; 66.5–74' Silt; 74–78' Clay

ENGINEERING–SCIENCE DRILLING RECORD

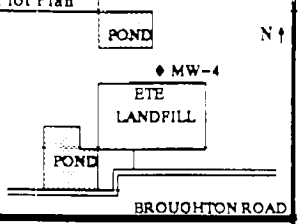
BORING NO. MW–4

Contractor: SJB Services, Inc.
Driller: Randy Steiner
Inspector: N.A. Smith
Rig Type/Method: CME–550 / 4.25" HSA

PROJECT NAME: ETE Sanitation
PROJECT NUMBER: SY327.05

Sheet 1 of 1
Location: North of landfill

Plot Plan



GROUNDWATER OBSERVATIONS

WATER LEVEL	4.23' (TOC)	4.5' (TOC)	5.2' (TOC)	
DATE	4/9/93	4/20/93	5/10/93	
TIME	1605	1100	1040	

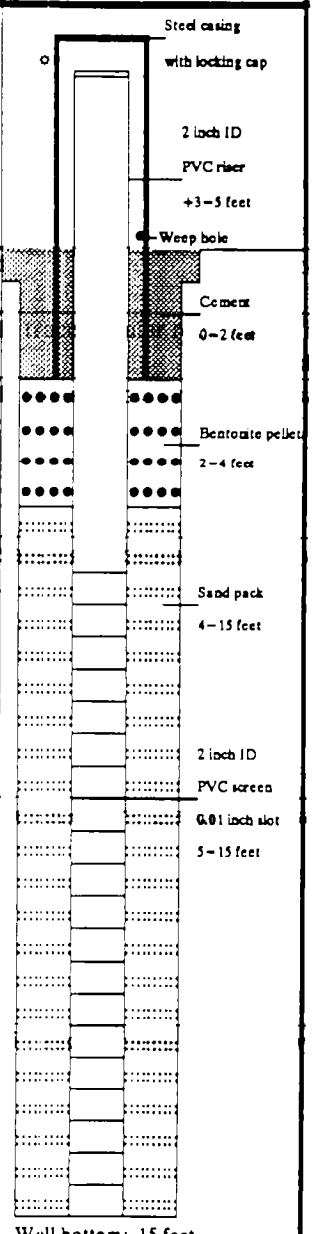
Weather Foggy, 40 degrees

Date/Time Start March 24, 1993 / 0850

Date/Time Finish March 24, 1993 / 1125

Photovac Reading	Sample I.D.	Sample Depth	Percent Recovery	SPT	FIELD IDENTIFICATION OF MATERIAL
		0		SS	
0.0			75	1	Dark brown SILT, some fine sand (moist)
		1		1	
				8	Light brown fine SAND, some silt, trace angular rock fragments (dry)
		2		8	
0.0	S1		62.5	4	Brown fine to medium SAND, little angular rock fragments (wet)
	S1	3		5	
	S1			6	
	S1	4		5	
0.0	S1		62.5	3	
	S1	5		4	Brown fine SAND, some silt, trace angular rock fragments (wet)
	S1			8	
	S1	6		11	
0.0	S1		25	8	
	S1	7		9	
	S1			9	
	S1	8		11	
0.0			75	3	
		9		3	Gray fine SAND, some silt, trace rounded fine gravel (wet)
				6	
		10		7	
0.0	GS		50	1	
	GS	11		5	
	GS			5	
	GS	12		7	
0.0	GS		50	6	Gray fine–medium SAND, little silt and rounded pebbles (wet)
	GS	13		11	
	GS			16	
	GS	14		13	
0.0			12.5	3	
		15		7	
				9	
		16		11	
					Boring terminated at 15 feet.

WELL SCHEMATIC



Well bottom: 15 feet

STANDARD PENETRATION TEST
SS = SPLIT SPOON
A = AUGER CUTTINGS
C = CORED

Summary: 0–1' Silt; 1–15 Sand, some silt, little gravel–pebbles
S1 – Analytical sample collected from 2–8 feet
GS – Grain size sample collected from 10–14 feet

Huntingdon

Empire Soils Investigations, Inc., Division
105 Corona Avenue
Groton, New York 13073
(315)475-0717
(607)898-5881
Fax (607)898-4760

June 2, 1993

Thomas Abrams
Engineering-Science, Inc.
290 Elwood Davis Road, Suite 312
Liverpool, New York 13088

Reference: Geotechnical Analysis for PSA
Work Assignment No. D002478-17

Dear Mr. Abrams,

Enclosed please find the results of soil samples grain size analysis in accordance with our subcontract dated March 19, 1993 and your letter of transmittal dated May 10, 1993. In all cases we utilized the entire sample provided. Some of the samples containing gravel do not meet the "Approximate Minimum Mass of Portion, g" stated in ASTM D 422 Section 5.1.1 (see copy below). The actual weight retained of samples listed on our "GRAIN SIZE DISTRIBUTION TEST DATA" reports. This information is provided for your use in evaluating the test data.

> 5.1.1 The size of the portion retained on the No. 10 sieve shall depend on the maximum size of particle, according to the following schedule:
>
> | Nominal Diameter of Largest Particles, in. (mm) | Approximate Minimum Mass of Portion, g |
> |---|---|
> | 3/8 (9.5) | 500 |
> | 3/4 (19.0) | 1000 |
> | 1 (25.4) | 2000 |
> | 1 1/2 (38.1) | 3000 |
> | 2 (50.8) | 4000 |
> | 3 (76.2) | 5000 |
>
> 5.1.2 The size of the portion passing the No. 10 sieve shall be approximately 115 g for sandy soils and approximately 65 g for silt and clay soils.

If you have any questions or require additional data please contact the undersigned. Samples and containers will be returned via UPS.

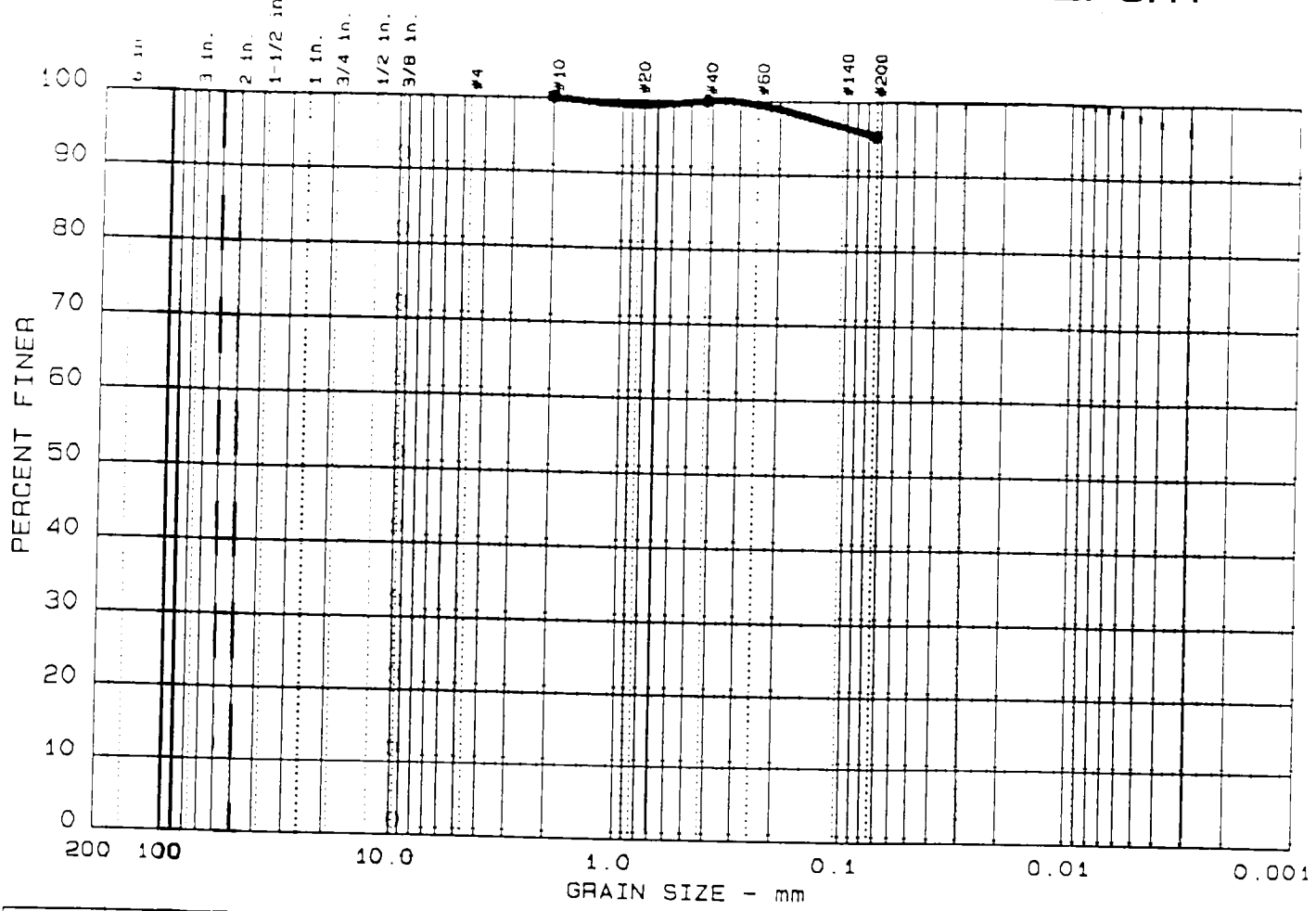
Respectfully submitted,

EMPIRE SOILS INVESTIGATIONS, INC.

Thomas Hamilton

Thomas A. Hamilton
Construction Services Manager

GRAIN SIZE DISTRIBUTION TEST REPORT



	%+75mm	% GRAVEL	% SAND	% SILT	% CLAY
●	0.0	0.0	4.8	95.2	

	LL	PI	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
●										

MATERIAL DESCRIPTION	USCS	AASHTO
● Silt and clay	ML or CL	

Project No.: GT-93-029
Project: PSA ETE Sanitation S4327.05.04
● Location: ETE MW 1S, 10'-12' ; 12'-14'

Date: May 27, 1993

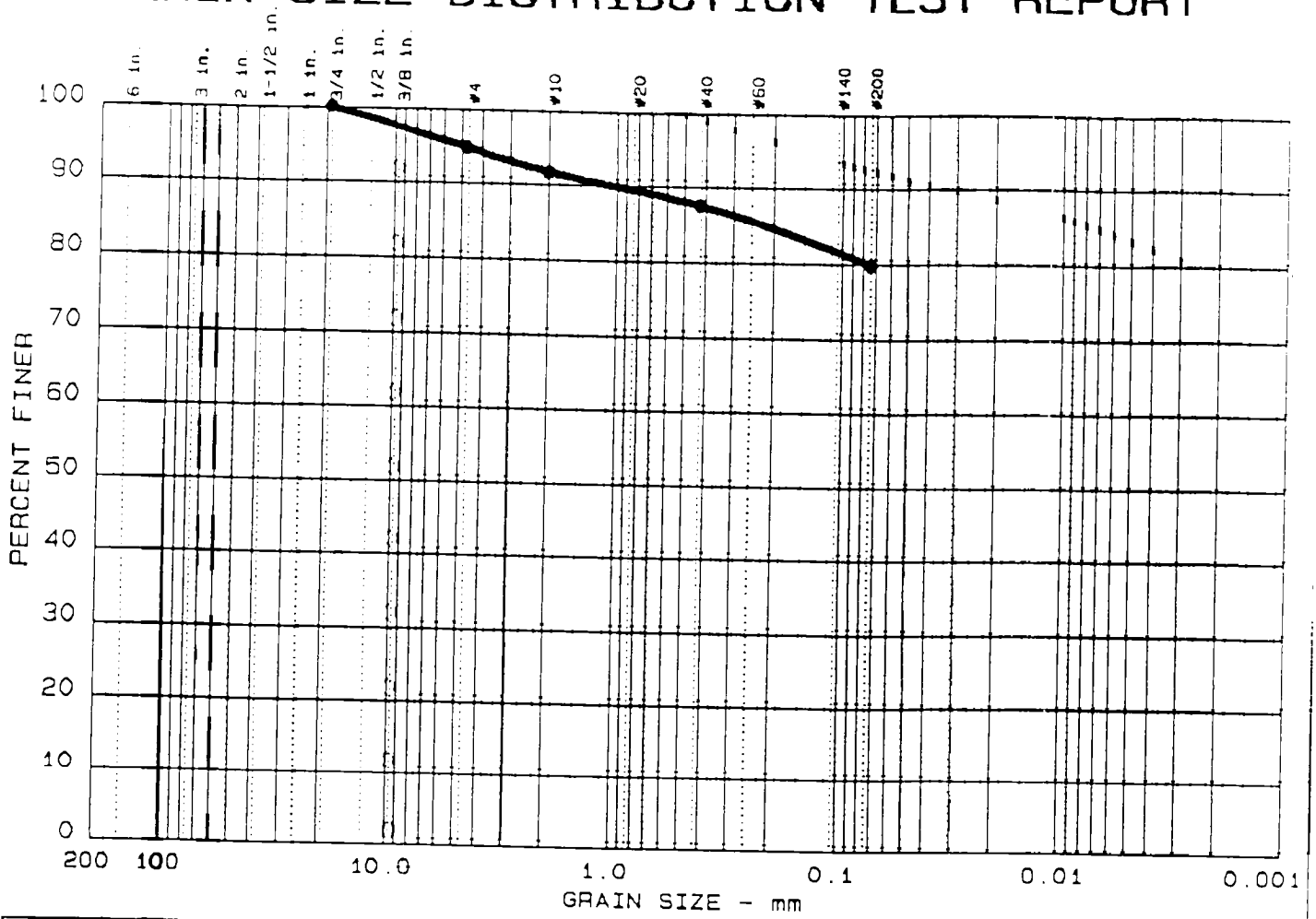
Remarks:

GRAIN SIZE DISTRIBUTION TEST REPORT

EMPIRE SOILS INVESTIGATIONS, INC.

Figure No. 1

GRAIN SIZE DISTRIBUTION TEST REPORT



	%+75mm	% GRAVEL	% SAND	% SILT	% CLAY
●	0.0	5.2	15.0	79.8	

	LL	PI	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
●			0.21							

MATERIAL DESCRIPTION	USCS	AASHTO
● Sandy silt and clay	ML or CL	

Project No.: GT-93-029
Project: PSA ETE Sanitation S4327.05.04
● Location: ETE MW 2S, 14'-16' ; 16'-18'

Date: May 27, 1993

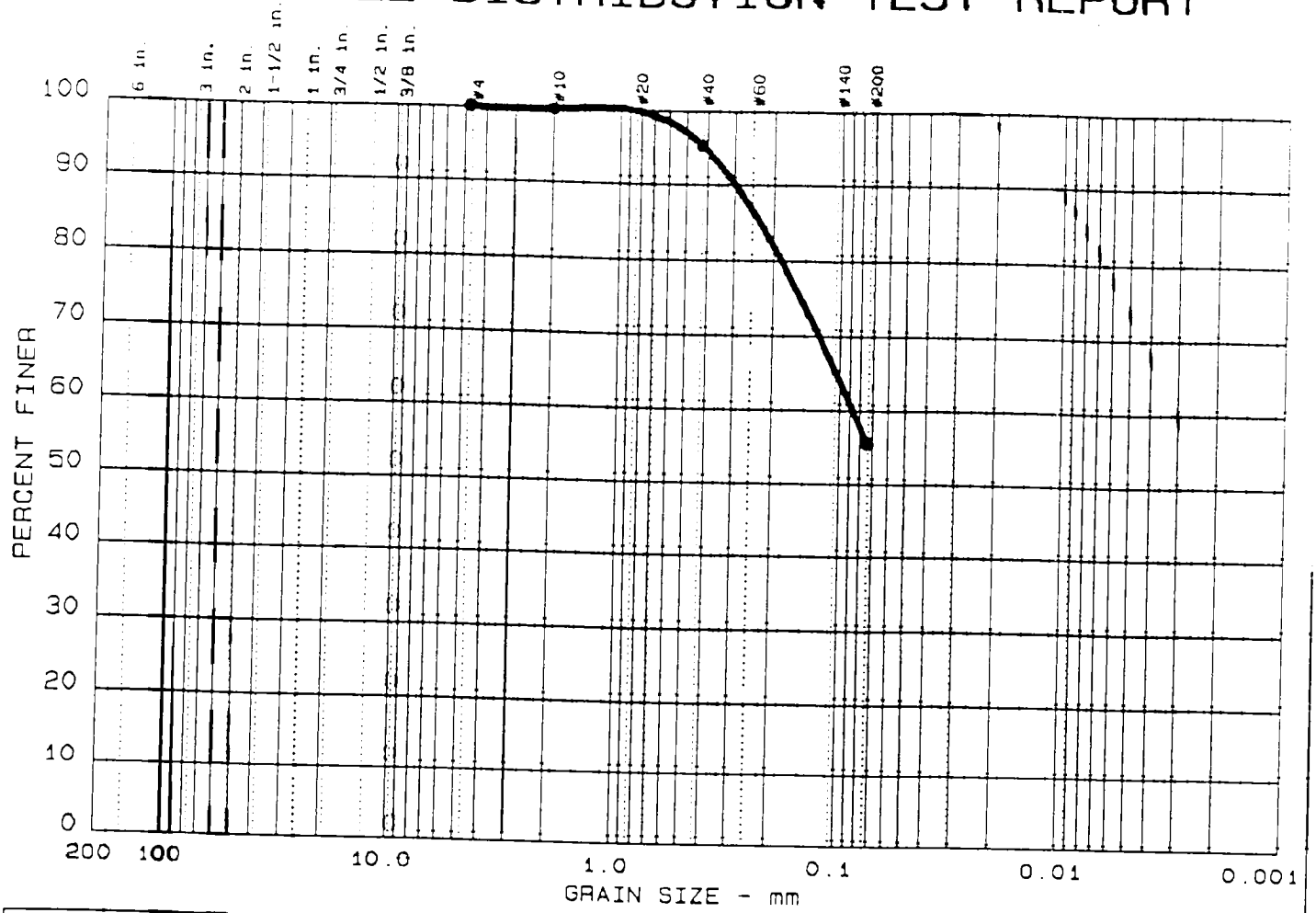
Remarks:

GRAIN SIZE DISTRIBUTION TEST REPORT

EMPIRE SOILS INVESTIGATIONS, INC.

Figure No. 2

GRAIN SIZE DISTRIBUTION TEST REPORT



	%+75mm	% GRAVEL	% SAND	% SILT	% CLAY
●	0.0	0.0	44.5	55.5	

	LL	PI	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_C	C_U
●			0.23	0.09						

MATERIAL DESCRIPTION	USCS	AASHTO
● Sandy silt and clay	ML or CL	

Project No.: GT-93-029
Project: PSA ETE Sanitation S4327.05.04
● Location: ETE MW 3S, 8'-10'

Date: May 27, 1993

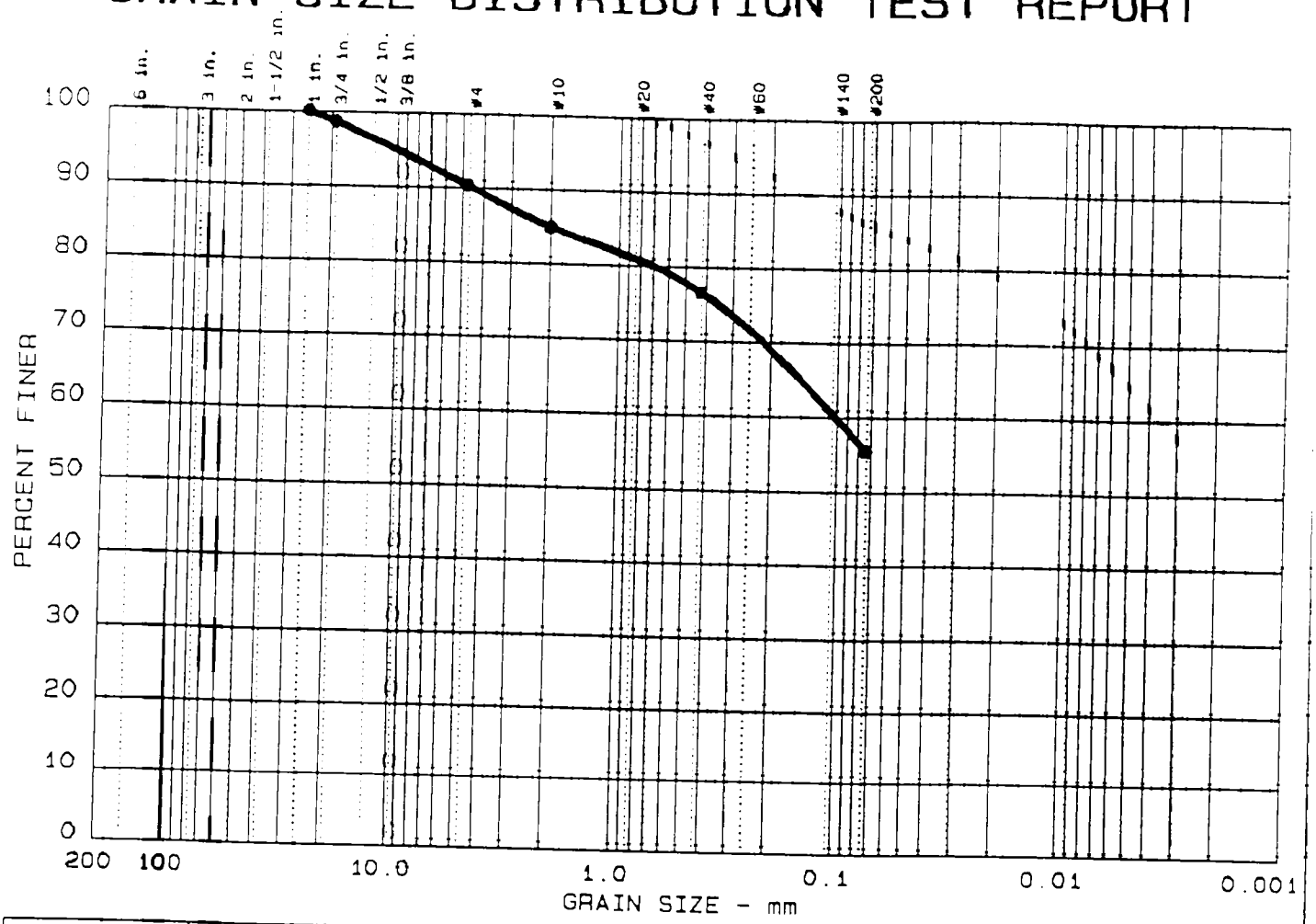
Remarks:

GRAIN SIZE DISTRIBUTION TEST REPORT

EMPIRE SOILS INVESTIGATIONS, INC.

Figure No. 3

GRAIN SIZE DISTRIBUTION TEST REPORT



	%+75mm	% GRAVEL	% SAND	% SILT	% CLAY
●	0.0	9.7	34.9	55.4	

	LL	PI	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
●			2.00	0.10						

	MATERIAL DESCRIPTION	USCS	AASHTO
●	Sandy silt and clay	ML or CL	

Project No.: GT-93-029
Project: PSA ETE Sanitation S4327.05.04
● Location: ETE MW 4, 10'-12' ; 12'-14'

Date: May 27, 1993

Remarks:

GRAIN SIZE DISTRIBUTION TEST REPORT

EMPIRE SOILS INVESTIGATIONS, INC.

Figure No. 4

GRAIN SIZE DISTRIBUTION TEST DATA

Date: May 27, 1993
Project No.: GT-93-029
Project: PSA ETE Sanitation S4327.05.04

Sample Data

Location of Sample: ETE MW 1S, 10'-12' ; 12'-14'
Sample Description: Silt and clay
USCS Class: ML or CL
AASHTO Class:
Liquid limit:
Plasticity index:

Notes

Remarks:

Fig. No.: 1

Mechanical Analysis Data

	Initial
Dry sample and tare=	636.00
Tare =	0.00
Dry sample weight =	636.00

Sieve tare method

Sieve	Weight retained	Sieve tare	Percent finer
# 10	0.18	0.00	100.0
# 40	0.45	0.00	99.9
# 200	29.96	0.00	95.2

Fractional Components

+ 3 in. = 0.0 % GRAVEL = 0.0 % SAND = 4.8
FINES = 95.2

GRAIN SIZE DISTRIBUTION TEST DATA

Date: May 27, 1993
Project No.: GT-93-029
Project: PSA ETE Sanitation S4327.05.04

Sample Data

Location of Sample: ETE MW 2S, 14'-16' ; 16'-18'
Sample Description: Sandy silt and clay
USCS Class: ML or CL
AASHTO Class:
Liquid limit:
Plasticity index:

Notes

Remarks:

Fig. No.: 2

Mechanical Analysis Data

	Initial
Dry sample and tare=	518.00
Tare =	0.00
Dry sample weight =	518.00

Sieve tare method

Sieve	Weight retained	Sieve tare	Percent finer
0.75 inches	0.00	0.00	100.0
# 4	26.99	0.00	94.8
# 10	15.96	0.00	91.7
# 40	21.66	0.00	87.5
# 200	40.17	0.00	79.8

Fractional Components

% + 3 in. = 0.0 % GRAVEL = 5.2 % SAND = 15.0
% FINES = 79.8

D85= 0.21

GRAIN SIZE DISTRIBUTION TEST DATA

Date: May 27, 1993
Project No.: GT-93-029
Project: PSA ETE Sanitation S4327.05.04

Sample Data

Location of Sample: ETE MW 3S, 8'-10'
Sample Description: Sandy silt and clay
USCS Class: ML or CL
AASHTO Class:
Liquid limit:
Plasticity index:

Notes

Remarks:

Fig. No.: 3

Mechanical Analysis Data

	Initial
Dry sample and tare=	615.30
Tare =	0.00
Dry sample weight =	615.30

Sieve tare method

Sieve	Weight retained	Sieve tare	Percent finer
# 4	0.18	0.00	100.0
# 10	0.80	0.00	99.8
# 40	28.52	0.00	95.2
# 200	244.50	0.00	55.5

Fractional Components

% + 3 in. = 0.0 % GRAVEL = 0.0 % SAND = 44.5
% FINES = 55.5

D85= 0.23 D60= 0.087

GRAIN SIZE DISTRIBUTION TEST DATA

Date: May 27, 1993
Project No.: GT-93-029
Project: PSA ETE Sanitation S4327.05.04

Sample Data

Location of Sample: ETE MW 4, 10'-12' ; 12'-14'
Sample Description: Sandy silt and clay
USCS Class: ML or CL
AASHTO Class:
Liquid limit:
Plasticity index:

Notes

Remarks:

Fig. No.: 4

Mechanical Analysis Data

	Initial
Dry sample and tare=	640.00
Tare =	0.00
Dry sample weight =	640.00

Sieve tare method

Sieve	Weight retained	Sieve tare	Percent finer
1 inches	0.00	0.00	100.0
0.75 inches	9.37	0.00	98.5
# 4	52.67	0.00	90.3
# 10	34.26	0.00	85.0
# 40	53.36	0.00	76.6
# 200	135.63	0.00	55.4

Fractional Components

% + 3 in. = 0.0 % GRAVEL = 9.7 % SAND = 34.9
% FINES = 55.4

D95= 2.00 D60= 0.101

APPENDIX D

LABORATORY ANALYSES

NYSDEC – PSA WORK ASSIGNMENTS
ETE SANITATION SITE
Recra Environmental, Inc., Analytical Data
VOLATILES ASP91–1
SEDIMENT DATA

		FIELD SAMPLE ID:	SD001	SD001–RE
		EPA SAMPLE ID:	SD–001	SD–001RE
		LAB SAMPLE ID:	AS035604	AS035604RI
		SDG:	SS001	SS001
		MATRIX:	**SOIL**	**SOIL**
		SAMPLED:	05/10/93	05/10/93
		RECEIVED:	05/11/93	05/11/93
		ANALYZED:	05/14/93	06/03/93
		DIL. FACTOR:	1	1
CAS NO	COMPOUND	UNITS:	UG/KG	UG/KG
74–87–3	Chloromethane		16 U	16 U
74–83–9	Bromomethane		16 U	16 U
75–01–4	Vinyl chloride		16 U	16 U
75–00–3	Chloroethane		16 U	16 U
75–09–2	Methylene chloride		98 B	75 B
67–64–1	Acetone		190	75 B
75–15–0	Carbon Disulfide		16 U	16 U
75–35–4	1,1–Dichloroethene		16 U	16 U
75–34–3	1,1–Dichloroethane		16 U	16 U
540–59–0	1,2–Dichloroethene (Total)		16 U	16 U
67–66–3	Chloroform		16 U	16 U
107–06–2	1,2–Dichloroethane		16 U	16 U
78–93–3	2–Butanone		50	15 BJ
71–55–6	1,1,1–Trichloroethane		16 U	16 U
56–23–5	Carbon Tetrachloride		16 U	16 U
75–27–4	Bromodichloromethane		16 U	16 U
78–87–5	1,2–Dichloropropane		16 U	16 U
10061–02–6	cis–1,3–Dichloropropene		16 U	16 U
79–01–6	Trichloroethene		16 U	16 U
124–48–1	Dibromochloromethane		16 U	16 U
79–00–5	1,1,2–Trichloroethane		16 U	16 U
71–43–2	Benzene		3 BJ	16 U
10061–01–5	trans–1,3–Dichloropropene		16 U	16 U
75–25–2	Bromoform		16 U	16 U
108–10–1	4–Methyl–2–pentanone		16 U	16 U
591–78–6	2–Hexanone		16 U	16 U
127–18–4	Tetrachloroethene		16 U	16 U
79–34–5	1,1,2,2–Tetrachloroethane		16 U	16 U
108–88–3	Toluene		16 U	16 U
108–90–7	Chlorobenzene		16 U	16 U
100–41–4	Ethyl benzene		8 J	3 J
100–42–5	Styrene		16 U	16 U
1330–20–7	Total Xylenes		17	7 J

NYSDEC – PSA WORK ASSIGNMENTS
ETE SANITATION SITE
Recra Environmental, Inc., Analytical Data
SEMIVOLATILES ASP91-2
SEDIMENT DATA

		FIELD SAMPLE ID:	SD001
		EPA SAMPLE ID:	SD-001
		LAB SAMPLE ID:	AS035604
		SDG:	SS001
		MATRIX:	**SOIL**
		SAMPLED:	05/10/93
		RECEIVED:	05/11/93
		EXTRACTED:	05/14/93
		ANALYZED:	06/01/93
		DIL FACTOR:	1
CAS NO	COMPOUND	UNITS:	UG/KG
108-95-2	Phenol		520 U
111-44-4	Bis(2-chloroethyl) ether		520 U
95-57-8	2-Chlorophenol		520 U
541-73-1	1,3-Dichlorobenzene		520 U
106-46-7	1,4-Dichlorobenzene		520 U
95-50-1	1,2-Dichlorobenzene		520 U
95-48-7	2-Methylphenol		520 U
108-60-1	Bis(2-chloroisopropyl) ether		520 U
106-44-5	4-Methylphenol		520 U
621-64-7	N-Nitroso-Di-n-propylamine		520 U
67-72-1	Hexachloroethane		520 U
98-95-3	Nitrobenzene		520 U
78-59-1	Isophorone		520 U
88-75-5	2-Nitrophenol		520 U
105-67-9	2,4-Dimethylphenol		520 U
111-91-1	Bis(2-chloroethoxy) methane		520 U
120-83-2	2,4-Dichlorophenol		520 U
120-82-1	1,2,4-Trichlorobenzene		520 U
91-20-3	Naphthalene		520 U
106-47-8	4-Chloroaniline		520 U
87-68-3	Hexachlorobutadiene		520 U
59-50-7	4-Chloro-3-methylphenol		520 U
91-57-6	2-Methylnaphthalene		520 U
77-47-4	Hexachlorocyclopentadiene		520 U
88-06-2	2,4,6-Trichlorophenol		520 U
95-95-4	2,4,5-Trichlorophenol		1300 U
91-58-7	2-Chloronaphthalene		520 U
88-74-4	2-Nitroaniline		1300 U
131-11-3	Dimethyl phthalate		520 U
208-96-8	Acenaphthylene		520 U
606-20-2	2,6-Dinitrotoluene		520 U
99-09-2	3-Nitroaniline		1300 U
83-32-9	Acenaphthene		520 U

NYSDEC – PSA WORK ASSIGNMENTS
ETE SANITATION SITE
Recra Environmental, Inc., Analytical Data
SEMIVOLATILES ASP91-2
SEDIMENT DATA

		FIELD SAMPLE ID:	SD001
		EPA SAMPLE ID:	SD-001
		LAB SAMPLE ID:	AS035604
		SDG:	SS001
		MATRIX:	**SOIL**
		SAMPLED:	05/10/93
		RECEIVED:	05/11/93
		EXTRACTED:	05/14/93
		ANALYZED:	06/01/93
		DIL FACTOR:	1
CAS NO	COMPOUND	UNITS:	UG/KG
51-28-5	2,4-Dinitrophenol		1300 U
100-02-7	4-Nitrophenol		1300 U
132-64-9	Dibenzo(a,h)anthracene		520 U
121-14-2	2,4-Dinitrotoluene		520 U
84-66-2	Diethyl phthalate		67 BJ
7005-72-3	4-Chlorodiphenylether		520 U
86-73-7	Fluorene		520 U
100-01-6	4-Nitroaniline		1300 U
534-52-1	4,6-Dinitro-2-methylphenol		1300 U
86-30-6	N-nitrosodiphenylamine		520 U
101-55-3	4-Bromophenyl phenyl ether		520 U
118-74-1	Hexachlorobenzene		520 U
87-86-5	Pentachlorophenol		1300 U
85-01-8	Phenanthrene		34 J
120-12-7	Anthracene		520 U
86-74-8	Carbazole		520 U
84-74-2	Di-n-butyl phthalate		520 U
206-44-0	Fluoranthene		39 J
129-00-0	Pyrene		37 J
85-68-7	Butyl benzyl phthalate		520 U
91-94-1	3,3'-Dichlorobenzidine		520 U
56-55-3	Benzo(a)anthracene		520 U
218-01-9	Chrysene		520 U
117-81-7	Bis(2-ethylhexyl) phthalate		520 U
117-84-0	Di-n-octyl phthalate		520 U
205-99-2	Benzo(b)fluoranthene		520 U
207-08-9	Benzo(k)fluoranthene		520 U
50-32-8	Benzo(a)pyrene		520 U
193-39-5	Indeno(1,2,3-cd)pyrene		520 U
53-70-3	Dibenzofuran		520 U
191-24-2	Benzo(ghi)perylene		520 U

NYSDEC – PSA WORK ASSIGNMENTS
ETE SANITATION SITE
Recra Environmental, Inc., Analytical Data
PESTICIDES/AROCLORS ASP91–3
SEDIMENT DATA

		FIELD SAMPLE ID:	SD001
		EPA SAMPLE ID:	SD–001
		LAB SAMPLE ID:	AS035604
		SDG:	SSC01
		MATRIX:	**SOIL**
		SAMPLED:	05/10/93
		RECEIVED:	05/11/93
		EXTRACTED:	05/14/93
		ANALYZED:	05/28/93
		DIL FACTOR:	1
CAS NO	COMPOUND	UNITS:	UG/KG
319–84–6	alpha–BHC		2.7 U
319–85–7	beta–BHC		2.7 U
319–86–8	delta–BHC		2.7 U
58–89–9	gamma–BHC (Lindane)		2.7 U
76–44–8	Heptachlor		0.30 JP
309–00–2	Aldrin		2.7 U
1024–57–3	Heptachlor epoxide		2.7 U
959–98–8	Endosulfan I		2.7 U
60–57–1	Dieldrin		5.2 U
72–55–9	4,4'–DDE		0.83 J
72–20–8	Endrin		5.2 U
33213–65–9	Endosulfan II		5.2 U
72–54–8	4,4'–DDD		1.0 J
1031–07–8	Endosulfan Sulfate		5.2 U
50–29–3	4,4'–DDT		5.2 U
72–43–5	Methoxychlor		27 U
53494–70–5	Endrin ketone		5.2 U
7421–93–4	Endrin aldehyde		5.2 U
5103–71–9	alpha–Chlordane		2.7 U
5103–74–2	gamma–Chlordane		2.7 U
8001–35–2	Toxaphene		270 U
12674–11–2	Aroclor 1016		52 U
11104–28–2	Aroclor 1221		110 U
11141–16–5	Aroclor 1232		52 U
53469–21–9	Aroclor 1242		52 U
12672–29–6	Aroclor 1248		52 U
11097–69–1	Aroclor 1254		52 U
11096–82–5	Aroclor 1260		52 U

NYSDEC – PSA WORK ASSIGNMENTS
ETE SANITATION SITE
Recra Environmental, Inc., Analytical Data
TOTAL METALS
SEDIMENT DATA

		FIELD SAMPLE ID:	SD001
		EPA SAMPLE ID:	SD–001
		LAB SAMPLE ID:	6313
		SDG:	SS001
		MATRIX:	**SOIL**
		SAMPLED:	05/10/93
		RECEIVED:	05/11/93
		ANALYZED:	5/14–6/4/93
		% SOLIDS	62.7
CAS NO	COMPOUND	UNITS:	MG/KG
7429–90–5	Aluminum – Total		7670
7440–36–0	Antimony – Total		19.3 UN
7440–38–2	Arsenic – Total		7.6 SN
7440–39–3	Barium – Total		83.4
7440–41–7	Beryllium – Total		1.6 U
7440–43–9	Cadmium – Total		0.64 BN
7440–70–2	Calcium – Total		20500
7440–47–3	Chromium – Total		11.0
7440–48–4	Cobalt – Total		6.4 U
7440–50–8	Copper – Total		21.7
57–12–5	Cyanide – Total		1.7 *
7439–89–6	Iron – Total		80500 E
7439–92–1	Lead – Total		36.1 +*
7439–95–4	Magnesium – Total		4170
7439–96–5	Manganese – Total		1340 EN
7439–97–6	Mercury – Total		0.15 U
7440–02–0	Nickel – Total		9.7 U
7440–09–7	Potassium – Total		954 B
7782–49–2	Selenium – Total		1.3 UN
7440–22–4	Silver – Total		0.060 U
7440–23–5	Sodium – Total		11500
7440–28–0	Thallium – Total		1.8 U
7440–62–2	Vanadium – Total		8.4 U
7440–66–6	Zinc – Total		180 E

NYSDEC – PSA WORK ASSIGNMENTS
ETE SANITATION SITE
Recra Environmental, Inc., Analytical Data
EP TOX METALS
SEDIMENT DATA

	FIELD SAMPLE ID:	SD001
	EPA SAMPLE ID:	SD-001
	LAB SAMPLE ID:	6285
	SDG:	SS001
	MATRIX:	**WATER**
	SAMPLED:	05/10/93
	RECEIVED:	05/11/93
	ANALYZED:	5/14-6/4/93
	% SOLIDS	0
CAS NO	COMPOUND	UNITS: UG/L
7429-90-5	Aluminum -Dissolved	200 *
7440-36-0	Antimony - Dissolved	5.0 U
7440-38-2	Arsenic - Dissolved	4.0 U
7440-39-3	Barium - Dissolved	393
7440-41-7	Beryllium - Dissolved	5.0 U
7440-43-9	Cadmium - Dissolved	0.20 UN
7440-70-2	Calcium - Dissolved	25100 BN
7440-47-3	Chromium - Dissolved	10 U*
7440-48-4	Cobalt - Dissolved	20.0 U
7440-50-8	Copper - Dissolved	13.2 B
57-12-5	Cyanide - Dissolved	10 UN
7439-89-6	Iron - Dissolved	19000
7439-92-1	Lead - Dissolved	6.0 U
7439-95-4	Magnesium - Dissolved	7270
7439-96-5	Manganese - Dissolved	11200 N*
7439-97-6	Mercury - Dissolved	0.20 U
7440-02-0	Nickel - Dissolved	117
7440-09-7	Potassium - Dissolved	4030 B
7782-49-2	Selenium - Dissolved	4.0 U
7440-22-4	Silver - Dissolved	0.20 U
7440-23-5	Sodium - Dissolved	279000
7440-28-0	Thallium - Dissolved	5.0 UW
7440-62-2	Vanadium - Dissolved	20.0 U
7440-66-6	Zinc - Dissolved	53.1 *

NYSDEC – PSA WORK ASSIGNMENTS
ETE SANITATION SITE
Recra Environmental, Inc., Analytical Data
VOLATILES ASP91-1
LEACHATE DATA

		FIELD SAMPLE ID:	LC001
		EPA SAMPLE ID:	LC-001
		LAB SAMPLE ID:	AS035593
		SDG:	GW01S
		MATRIX:	**WATER**
		SAMPLED:	05/11/93
		RECEIVED:	05/11/93
		ANALYZED:	05/15/93
		DIL. FACTOR:	5
CAS NO	COMPOUND	UNITS:	UG/L
74-87-3	Chloromethane		50 U
74-83-9	Bromomethane		50 U
75-01-4	Vinyl chloride		50 U
75-00-3	Chloroethane		9 J
75-09-2	Methylene chloride		170 B
67-64-1	Acetone		260 B
75-15-0	Carbon Disulfide		50 U
75-35-4	1,1-Dichloroethene		50 U
75-34-3	1,1-Dichloroethane		50 U
540-59-0	1,2-Dichloroethene (Total)		50 U
67-66-3	Chloroform		50 U
107-06-2	1,2-Dichloroethane		50 U
78-93-3	2-Butanone		800 B
71-55-6	1,1,1-Trichloroethane		50 U
56-23-5	Carbon Tetrachloride		50 U
75-27-4	Bromodichloromethane		50 U
78-87-5	1,2-Dichloropropane		50 U
10061-02-6	cis-1,3-Dichloropropene		50 U
79-01-6	Trichloroethene		50 U
124-48-1	Dibromochloromethane		50 U
79-00-5	1,1,2-Trichloroethane		50 U
71-43-2	Benzene		50 U
10061-01-5	trans-1,3-Dichloropropene		50 U
75-25-2	Bromoform		50 U
108-10-1	4-Methyl-2-pentanone		59
591-78-6	2-Hexanone		50 U
127-18-4	Tetrachloroethene		50 U
79-34-5	1,1,2,2-Tetrachloroethane		50 U
108-88-3	Toluene		23 J
108-90-7	Chlorobenzene		50 U
100-41-4	Ethyl benzene		79
100-42-5	Styrene		50 U
1330-20-7	Total Xylenes		210

NYSDEC – PSA WORK ASSIGNMENTS
ETE SANITATION SITE
Recra Environmental, Inc., Analytical Data
SEMIVOLATILES ASP91-2
LEACHATE DATA

		FIELD SAMPLE ID:	LC001	LC001-RE
		EPA SAMPLE ID:	LC-001	LC-001RE
		LAB SAMPLE ID:	AS035593	AS035593RI
		SDG:	GW01S	GW01S
		MATRIX:	**WATER**	**WATER**
		SAMPLED:	05/11/93	05/11/93
		RECEIVED:	05/11/93	05/11/93
		EXTRACTED:	05/14/93	05/14/93
		ANALYZED:	05/28/93	06/01/93
		DIL FACTOR:	1	1
CAS NO	COMPOUND	UNITS:	UG/L	UG/L
108-95-2	Phenol		10 U	10 U
111-44-4	Bis(2-chloroethyl) ether		10 U	10 U
95-57-8	2-Chlorophenol		10 U	10 U
541-73-1	1,3-Dichlorobenzene		10 U	10 U
106-46-7	1,4-Dichlorobenzene		10 U	10 U
95-50-1	1,2-Dichlorobenzene		10 U	10 U
95-48-7	2-Methylphenol		10 U	10 U
108-60-1	Bis(2-chloroisopropyl) ether		10 U	10 U
106-44-5	4-Methylphenol		10 U	10 U
621-64-7	N-Nitroso-Di-n-propylamine		10 U	10 U
67-72-1	Hexachloroethane		10 U	10 U
98-95-3	Nitrobenzene		10 U	10 U
78-59-1	Isophorone		10 U	1 J
88-75-5	2-Nitrophenol		10 U	10 U
105-67-9	2,4-Dimethylphenol		9 J	8 J
111-91-1	Bis(2-chloroethoxy) methane		10 U	10 U
120-83-2	2,4-Dichlorophenol		10 U	10 U
120-82-1	1,2,4-Trichlorobenzene		10 U	10 U
91-20-3	Naphthalene		28	27
106-47-8	4-Chloroaniline		10 U	10 U
87-68-3	Hexachlorobutadiene		10 U	10 U
59-50-7	4-Chloro-3-methylphenol		8 J	8 J
91-57-6	2-Methylnaphthalene		22	22
77-47-4	Hexachlorocyclopentadiene		10 U	10 U
88-06-2	2,4,6-Trichlorophenol		10 U	10 U
95-95-4	2,4,5-Trichlorophenol		25 U	25 U
91-58-7	2-Chloronaphthalene		10 U	10 U
88-74-4	2-Nitroaniline		25 U	25 U
131-11-3	Dimethyl phthalate		10 U	10 U
208-96-8	Acenaphthylene		10 U	10 U
606-20-2	2,6-Dinitrotoluene		10 U	10 U
99-09-2	3-Nitroaniline		25 U	25 U
83-32-9	Acenaphthene		8 J	8 J

NYSDEC – PSA WORK ASSIGNMENTS
ETE SANITATION SITE
Recra Environmental, Inc., Analytical Data
SEMIVOLATILES ASP91-2
LEACHATE DATA

		FIELD SAMPLE ID:		
		EPA SAMPLE ID:	LC001	LC001-RE
		LAB SAMPLE ID:	AS035593	AS035593RI
		SDG:	GW01S	GW01S
		MATRIX:	WATER	WATER
		SAMPLED:	05/11/93	05/11/93
		RECEIVED:	05/11/93	05/11/93
		EXTRACTED:	05/14/93	05/14/93
		ANALYZED:	05/28/93	06/01/93
		DIL FACTOR:	1	1
CAS NO	COMPOUND	UNITS:	UG/L	UG/L
51-28-5	2,4-Dinitrophenol		25 U	25 U
100-02-7	4-Nitrophenol		25 U	25 U
132-64-9	Dibenzo(a,h)anthracene		10 U	10 U
121-14-2	2,4-Dinitrotoluene		10 U	10 U
84-66-2	Diethyl phthalate		9 J	9 J
7005-72-3	4-Chlorodiphenylether		10 U	10 U
86-73-7	Fluorene		2 J	2 J
100-01-6	4-Nitroaniline		25 U	25 U
534-52-1	4,6-Dinitro-2-methylphenol		25 U	25 U
86-30-6	N-nitrosodiphenylamine		10 U	10 U
101-55-3	4-Bromophenyl phenyl ether		10 U	10 U
118-74-1	Hexachlorobenzene		10 U	10 U
87-86-5	Pentachlorophenol		25 U	25 U
85-01-8	Phenanthrene		0.9 J	1 J
120-12-7	Anthracene		0.9 J	10 U
86-74-8	Carbazole		2 J	2 J
84-74-2	Di-n-butyl phthalate		0.6 J	0.7 J
206-44-0	Fluoranthene		10 U	10 U
129-00-0	Pyrene		10 U	10 U
85-68-7	Butyl benzyl phthalate		10 U	10 U
91-94-1	3,3'-Dichlorobenzidine		10 U	10 U
56-55-3	Benzo(a)anthracene		10 U	10 U
218-01-9	Chrysene		10 U	10 U
117-81-7	Bis(2-ethylhexyl) phthalate		10 U	10 U
117-84-0	Di-n-octyl phthalate		10 U	10 U
205-99-2	Benzo(b)fluoranthene		10 U	10 U
207-08-9	Benzo(k)fluoranthene		10 U	10 U
50-32-8	Benzo(a)pyrene		10 U	10 U
193-39-5	Indeno(1,2,3-cd)pyrene		10 U	10 U
53-70-3	Dibenzofuran		5 J	5 J
191-24-2	Benzo(ghi)perylene		10 U	10 U

NYSDEC – PSA WORK ASSIGNMENTS
ETE SANITATION SITE
Recra Environmental, Inc., Analytical Data
PESTICIDES/AROCLORS ASP91–3
LEACHATE DATA

		FIELD SAMPLE ID:	LC001
		EPA SAMPLE ID:	LC–001
		LAB SAMPLE ID:	AS035593
		SDG:	GW01S
		MATRIX:	**WATER**
		SAMPLED:	05/11/93
		RECEIVED:	05/11/93
		EXTRACTED:	05/14/93
		ANALYZED:	05/27/93
		DIL FACTOR:	1
CAS NO	COMPOUND	UNITS:	UG/L
319–84–6	alpha–BHC		0.050 U
319–85–7	beta–BHC		0.050 U
319–86–8	delta–BHC		0.050 U
58–89–9	gamma–BHC (Lindane)		0.0043 JP
76–44–8	Heptachlor		0.050 U
309–00–2	Aldrin		0.050 U
1024–57–3	Heptachlor epoxide		0.050 U
959–98–8	Endosulfan I		0.050 U
60–57–1	Dieldrin		0.10 U
72–55–9	4,4'–DDE		0.10 U
72–20–8	Endrin		0.10 U
33213–65–9	Endosulfan II		0.10 U
72–54–8	4,4'–DDD		0.10 U
1031–07–8	Endosulfan Sulfate		0.10 U
50–29–3	4,4'–DDT		0.10 U
72–43–5	Methoxychlor		0.50 U
53494–70–5	Endrin ketone		0.10 U
7421–93–4	Endrin aldehyde		0.10 U
5103–71–9	alpha–Chlordane		0.050 U
5103–74–2	gamma–Chlordane		0.017 JP
8001–35–2	Toxaphene		5.0 U
12674–11–2	Aroclor 1016		1.0 U
11104–28–2	Aroclor 1221		2.0 U
11141–16–5	Aroclor 1232		1.0 U
53469–21–9	Aroclor 1242		1.0 U
12672–29–6	Aroclor 1248		1.0 U
11097–69–1	Aroclor 1254		1.0 U
11096–82–5	Aroclor 1260		1.0 U

NYSDEC – PSA WORK ASSIGNMENTS
ETE SANITATION SITE
Recra Environmental, Inc., Analytical Data
TOTAL METALS
LEACHATE DATA

		FIELD SAMPLE ID:	LC001
		EPA SAMPLE ID:	LC-001
		LAB SAMPLE ID:	6198
		SDG:	GW01S
		MATRIX:	**WATER**
		SAMPLED:	05/11/93
		RECEIVED:	05/11/93
		ANALYZED:	5/14-28/93
		% SOLIDS	0
CAS NO	COMPOUND	UNITS:	UG/L
7429-90-5	Aluminum – Total		3850 N
7440-36-0	Antimony – Total		5.0 UN
7440-38-2	Arsenic – Total		5.0 B
7440-39-3	Barium – Total		1700
7440-41-7	Beryllium – Total		5.0 U
7440-43-9	Cadmium – Total		1.0 UWN
7440-70-2	Calcium – Total		305000 B
7440-47-3	Chromium – Total		10 U*
7440-48-4	Cobalt – Total		20.0 U
7440-50-8	Copper – Total		19.2 B
7439-89-6	Iron – Total		201000 *
7439-92-1	Lead – Total		30.0 UEN
7439-95-4	Magnesium – Total		52700
7439-96-5	Manganese – Total		4000 N*
7439-97-6	Mercury – Total		0.20 U
7440-02-0	Nickel – Total		30.0 U
7440-09-7	Potassium – Total		70100
7782-49-2	Selenium – Total		4.0 U
7440-22-4	Silver – Total		0.20 BW
7440-23-5	Sodium – Total		7970000
7440-28-0	Thallium – Total		5.0 U
7440-62-2	Vanadium – Total		20.0 U
7440-66-6	Zinc – Total		153
57-12-5	Cyanide – Total		13.8

NYSDEC – PSA WORK ASSIGNMENTS
ETE SANITATION SITE
Recra Environmental, Inc., Analytical Data
VOLATILES ASP91-1
SURFACE SOIL DATA

		FIELD SAMPLE ID:	SS001	SS002	SS003	SS004	SS004-RE
		EPA SAMPLE ID:	SS-001	SS-002	SS-003	SS-004	SS-004RE
		LAB SAMPLE ID:	AS035600	AS035602	AS035603	AS035601	AS035601RI
		SDG:	SS001	SS001	SS001	SS001	SS001
		MATRIX:	**SOIL**	**SOIL**	**SOIL**	**SOIL**	**SOIL**
		SAMPLED:	05/10/93	05/10/93	05/10/93	05/10/93	05/10/93
		RECEIVED:	05/11/93	05/11/93	05/11/93	05/11/93	05/11/93
		ANALYZED:	05/14/93	**05/17/93**	05/18/93	**05/18/93**	**05**/18/93
		DIL FACTOR:	1	1	1	1	1
CAS NO	COMPOUND	UNITS:	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
74-87-3	Chloromethane		16 U	11 U	12 U	19 U	19 U
74-83-9	Bromomethane		16 U	11 U	12 U	19 U	19 U
75-01-4	Vinyl chloride		16 U	11 U	12 U	19 U	19 U
75-00-3	Chloroethane		16 U	11 U	12 U	19 U	19 U
75-09-2	Methylene chloride		10 BJ	140 B	95 B	90 B	65 B
67-64-1	Acetone		18	65	6 BJ	14 BJ	15 BJ
75-15-0	Carbon Disulfide		16 U	11 U	12 U	19 U	19 U
75-35-4	1,1-Dichloroethene		16 U	11 U	12 U	19 U	19 U
75-34-3	1,1-Dichloroethane		16 U	11 U	12 U	19 U	19 U
540-59-0	1,2-Dichloroethene (Total)		16 U	11 U	12 U	19 U	19 U
67-66-3	Chloroform		16 U	11 U	12 U	19 U	19 U
107-06-2	1,2-Dichloroethane		16 U	11 U	12 U	19 U	19 U
78-93-3	2-Butanone		15 J	9 BJ	5 BJ	12 BJ	12 BJ
71-55-6	1,1,1-Trichloroethane		16 U	11 U	12 U	19 U	19 U
56-23-5	Carbon Tetrachloride		16 U	11 U	12 U	19 U	19 U
75-27-4	Bromodichloromethane		16 U	11 U	12 U	19 U	19 U
78-87-5	1,2-Dichloropropane		16 U	11 U	12 U	19 U	19 U
10061-02-6	cis-1,3-Dichloropropene		16 U	11 U	12 U	19 U	19 U
79-01-6	Trichloroethene		16 U	11 U	12 U	19 U	19 U
124-48-1	Dibromochloromethane		16 U	11 U	12 U	19 U	19 U
79-00-5	1,1,2-Trichloroethane		16 U	11 U	12 U	19 U	19 U
71-43-2	Benzene		2 BJ	11 U	12 U	19 U	19 U
10061-01-5	trans-1,3-Dichloropropene		16 U	11 U	12 U	19 U	19 U
75-25-2	Bromoform		16 U	11 U	12 U	19 U	19 U
108-10-1	4-Methyl-2-pentanone		16 U	11 U	12 U	19 U	19 U
591-78-6	2-Hexanone		16 U	11 U	12 U	19 U	19 U
127-18-4	Tetrachloroethene		16 U	11 U	12 U	19 U	19 U
79-34-5	1,1,2,2-Tetrachloroethane		16 U	11 U	12 U	19 U	19 U
108-88-3	Toluene		16 U	11 U	12 U	19 U	19 U
108-90-7	Chlorobenzene		16 U	11 U	12 U	19 U	19 U
100-41-4	Ethyl benzene		16 U	11 U	12 U	19 U	19 U
100-42-5	Styrene		16 U	11 U	12 U	19 U	19 U
1330-20-7	Total Xylenes		16 U	11 U	12 U	19 U	19 U

NYSDEC – PSA WORK ASSIGNMENTS
ETE SANITATION SITE
Recra Environmental, Inc., Analytical Data
SEMIVOLATILES ASP91-2
SURFACE SOIL DATA

		FIELD SAMPLE ID:	SS001	SS002	SS003	SS004
		EPA SAMPLE ID:	SS-001	SS-002	SS-003	SS-004
		LAB SAMPLE ID:	AS035600	AS035602	AS035603	AS035601
		SDG:	SS001	SS001	SS001	SS001
		MATRIX:	SOIL	SOIL	SOIL	SOIL
		SAMPLED:	05/10/93	05/10/93	05/10/93	05/10/93
		RECEIVED:	05/11/93	05/11/93	05/11/93	05/11/93
		EXTRACTED:	05/14/93	05/14/93	05/14/93	05/14/93
		ANALYZED:	05/28/93	05/28/93	06/01/93	05/28/93
		DIL FACTOR:	1	1	1	1
CAS NO	COMPOUND	UNITS:	UG/KG	UG/KG	UG/KG	UG/KG
108-95-2	Phenol		530 U	400 U	370 U	820 U
111-44-4	Bis(2-chloroethyl) ether		530 U	400 U	370 U	820 U
95-57-8	2-Chlorophenol		530 U	400 U	370 U	820 U
541-73-1	1,3-Dichlorobenzene		530 U	400 U	370 U	820 U
106-46-7	1,4-Dichlorobenzene		530 U	400 U	370 U	820 U
95-50-1	1,2-Dichlorobenzene		530 U	400 U	370 U	820 U
95-48-7	2-Methylphenol		530 U	400 U	370 U	820 U
108-60-1	Bis(2-chloroisopropyl) ether		530 U	400 U	370 U	820 U
106-44-5	4-Methylphenol		530 U	400 U	370 U	820 U
621-64-7	N-Nitroso-Di-n-propylamine		530 U	400 U	370 U	820 U
67-72-1	Hexachloroethane		530 U	400 U	370 U	820 U
98-95-3	Nitrobenzene		530 U	400 U	370 U	820 U
78-59-1	Isophorone		530 U	400 U	370 U	820 U
88-75-5	2-Nitrophenol		530 U	400 U	370 U	820 U
105-67-9	2,4-Dimethylphenol		530 U	400 U	370 U	820 U
111-91-1	Bis(2-chloroethoxy) methane		530 U	400 U	370 U	820 U
120-83-2	2,4-Dichlorophenol		530 U	400 U	370 U	820 U
120-82-1	1,2,4-Trichlorobenzene		530 U	400 U	370 U	820 U
91-20-3	Naphthalene		29 J	400 U	370 U	820 U
106-47-8	4-Chloroaniline		530 U	400 U	370 U	820 U
87-68-3	Hexachlorobutadiene		530 U	400 U	370 U	820 U
59-50-7	4-Chloro-3-methylphenol		530 U	400 U	370 U	820 U
91-57-6	2-Methylnaphthalene		530 U	400 U	370 U	820 U
77-47-4	Hexachlorocyclopentadiene		530 U	400 U	370 U	820 U
88-06-2	2,4,6-Trichlorophenol		530 U	400 U	370 U	820 U
95-95-4	2,4,5-Trichlorophenol		1300 U	960 U	910 U	1500 U
91-58-7	2-Chloronaphthalene		530 U	400 U	370 U	820 U
88-74-4	2-Nitroaniline		1300 U	960 U	910 U	1500 U
131-11-3	Dimethyl phthalate		530 U	400 U	370 U	820 U
208-96-8	Acenaphthylene		530 U	400 U	370 U	820 U
606-20-2	2,6-Dinitrotoluene		530 U	400 U	370 U	820 U
99-09-2	3-Nitroaniline		1300 U	960 U	910 U	1500 U
83-32-9	Acenaphthene		530 U	400 U	370 U	820 U

NYSDEC – PSA WORK ASSIGNMENTS
ETE SANITATION SITE
Recra Environmental, Inc., Analytical Data
SEMIVOLATILES ASP91-2
SURFACE SOIL DATA

CAS NO	COMPOUND	FIELD SAMPLE ID:	SS001	SS002	SS003	SS004
		EPA SAMPLE ID:	SS-001	SS-002	SS-003	SS-004
		LAB SAMPLE ID:	AS035600	AS035602	AS035603	AS035601
		SDG:	SS001	SS001	SS001	SS001
		MATRIX:	SOIL	SOIL	SOIL	SOIL
		SAMPLED:	05/10/93	05/10/93	05/10/93	05/10/93
		RECEIVED:	05/11/93	05/11/93	05/11/93	05/11/93
		EXTRACTED:	05/14/93	05/14/93	05/14/93	05/14/93
		ANALYZED:	05/28/93	05/28/93	06/01/93	05/28/93
		DIL FACTOR:	1	1	1	1
		UNITS:	UG/KG	UG/KG	UG/KG	UG/KG
51-28-5	2,4-Dinitrophenol		1300 U	960 U	910 U	1500 U
100-02-7	4-Nitrophenol		1300 U	960 U	910 U	1500 U
132-64-9	Dibenzo(a,h)anthracene		530 U	400 U	370 U	620 U
121-14-2	2,4-Dinitrotoluene		530 U	400 U	370 U	620 U
84-66-2	Diethyl phthalate		40 BJ	34 BJ	33 BJ	85 BJ
7005-72-3	4-Chlorodiphenylether		530 U	400 U	370 U	620 U
86-73-7	Fluorene		530 U	400 U	370 U	620 U
100-01-6	4-Nitroaniline		1300 U	960 U	910 U	1500 U
534-52-1	4,6-Dinitro-2-methylphenol		1300 U	960 U	910 U	1500 U
86-30-6	N-nitrosodiphenylamine		530 U	400 U	370 U	620 U
101-55-3	4-Bromophenyl phenyl ether		530 U	400 U	370 U	620 U
118-74-1	Hexachlorobenzene		530 U	400 U	370 U	620 U
87-86-5	Pentachlorophenol		1300 U	960 U	910 U	1500 U
85-01-8	Phenanthrene		76 J	400 U	27 J	110 J
120-12-7	Anthracene		530 U	400 U	370 U	620 U
86-74-8	Carbazole		530 U	400 U	370 U	620 U
84-74-2	Di-n-butyl phthalate		530 U	400 U	370 U	620 U
206-44-0	Fluoranthene		140 J	400 U	33 J	210 J
129-00-0	Pyrene		110 J	400 U	38 J	200 J
85-68-7	Butyl benzyl phthalate		530 U	400 U	40 J	620 U
91-94-1	3,3'-Dichlorobenzidine		530 U	400 U	370 U	620 U
56-55-3	Benzo(a)anthracene		57 J	400 U	370 U	84 J
218-01-9	Chrysene		71 J	400 U	370 U	100 J
117-81-7	Bis(2-ethylhexyl) phthalate		530 U	400 U	180 J	620 U
117-84-0	Di-n-octyl phthalate		530 U	400 U	370 U	620 U
205-99-2	Benzo(b)fluoranthene		76 J	400 U	370 U	110 J
207-08-9	Benzo(k)fluoranthene		52 J	400 U	370 U	80 J
50-32-8	Benzo(a)pyrene		40 J	400 U	370 U	59 J
193-39-5	Indeno(1,2,3-cd)pyrene		34 J	400 U	370 U	53 J
53-70-3	Dibenzofuran		530 U	400 U	370 U	620 U
191-24-2	Benzo(ghi)perylene		32 J	400 U	370 U	58 J

NYSDEC – PSA WORK ASSIGNMENTS
ETE SANITATION SITE
Recra Environmental, Inc., Analytical Data
PESTICIDES/AROCLORS ASP91-3
SURFACE SOIL DATA

		FIELD SAMPLE ID:	SS001	SS002	SS003	SS004
		EPA SAMPLE ID:	SS-001	SS-002	SS-003	SS-004
		LAB SAMPLE ID:	AS035600	AS035602	AS035603	AS035601
		SDG:	SS001	SS001	SS001	SS001
		MATRIX:	**SOIL**	**SOIL**	**SOIL**	**SOIL**
		SAMPLED:	05/10/93	05/10/93	05/10/93	05/10/93
		RECEIVED:	05/11/93	05/11/93	05/11/93	05/11/93
		EXTRACTED:	05/14/93	05/14/93	05/14/93	05/14/93
		ANALYZED:	05/28/93	05/28/93	05/28/93	05/28/93
		DIL FACTOR:	1	1	1	1
CAS NO	COMPOUND	UNITS:	UG/KG	UG/KG	UG/KG	UG/KG
319-84-6	alpha-BHC		2.7 U	1.9 U	2.0 U	3.2 U
319-85-7	beta-BHC		2.7 U	1.9 U	2.0 U	3.2 U
319-86-8	delta-BHC		2.7 U	1.9 U	2.0 U	0.51 JP
58-89-9	gamma-BHC (Lindane)		2.7 U	1.9 U	2.0 U	3.2 U
76-44-8	Heptachlor		2.7 U	1.9 U	2.0 U	3.2 U
309-00-2	Aldrin		0.41 JP	1.9 U	2.0 U	3.2 U
1024-57-3	Heptachlor epoxide		2.7 U	1.9 U	2.0 U	3.2 U
959-98-8	Endosulfan I		2.7 U	1.9 U	2.5	3.2 U
60-57-1	Dieldrin		2.3 JP	3.7 U	0.58 JP	1.7 JP
72-55-9	4,4'-DDE		5.3 U	3.7 U	4.0 U	6.2 U
72-20-8	Endrin		5.3 U	3.7 U	4.0 U	6.2 U
33213-65-9	Endosulfan II		5.3 U	3.7 U	30 P	6.2 U
72-54-8	4,4'-DDD		1.0 JP	3.7 U	4.0 U	6.2 U
1031-07-8	Endosulfan Sulfate		0.91 J	0.55 JP	12	6.2 U
50-29-3	4,4'-DDT		5.3 U	3.7 U	4.0 U	6.2 U
72-43-5	Methoxychlor		27 U	19 U	20 U	32 U
53494-70-5	Endrin ketone		5.3 U	3.7 U	4.0 U	6.2 U
7421-93-4	Endrin aldehyde		5.3 U	3.7 U	4.0 U	6.2 U
5103-71-9	alpha-Chlordane		2.7 U	1.9 U	2.2 P	3.2 U
5103-74-2	gamma-Chlordane		0.47 J	1.9 U	2.0 U	3.2 U
8001-35-2	Toxaphene		270 U	190 U	200 U	320 U
12674-11-2	Aroclor 1016		53 U	37 U	40 U	62 U
11104-28-2	Aroclor 1221		110 U	76 U	81 U	130 U
11141-16-5	Aroclor 1232		53 U	37 U	40 U	62 U
53469-21-9	Aroclor 1242		53 U	37 U	40 U	62 U
12672-29-6	Aroclor 1248		53 U	37 U	40 U	62 U
11097-69-1	Aroclor 1254		53 U	37 U	40 U	62 U
11096-82-5	Aroclor 1260		71 P	37 U	40 U	73 P

NYSDEC – PSA WORK ASSIGNMENTS
ETE SANITATION SITE
Recra Environmental, Inc., Analytical Data
TOTAL METALS
SURFACE SOIL DATA

	FIELD SAMPLE ID:	SS001	SS002	SS003
	EPA SAMPLE ID:	SS–001	SS–002	SS–003
	LAB SAMPLE ID:	6308	6311	6312
	SDG:	SS001	SS001	SS001
	MATRIX:	**SOIL**	**SOIL**	**SOIL**
	SAMPLED:	05/10/93	05/10/93	05/10/93
	RECEIVED:	05/11/93	05/11/93	05/11/93
	ANALYZED:	**5/14–6/4/93**	**5/14–21/93**	**5/14–6/4/93**
	% SOLIDS:	57.8	88.7	62.5
CAS NO	COMPOUND	UNITS: MG/KG	MG/KG	MG/KG
7429–90–5	Aluminum – Total	8040	7880	8290
7440–36–0	Antimony – Total	20.0 UN	13.4 UN	19.0 UN
7440–38–2	Arsenic – Total	10 SN	5.9 N	7.1 N
7440–39–3	Barium – Total	90.6	37.6 B	38.1 B
7440–41–7	Beryllium – Total	1.7 U	1.1 U	1.6 U
7440–43–9	Cadmium – Total	0.69 BN	0.31 BN	0.75 BN
7440–70–2	Calcium – Total	16500	22600	18100
7440–47–3	Chromium – Total	11.6	11.6	14.4
7440–48–4	Cobalt – Total	6.7 U	8.1 B	6.3 U
7440–50–8	Copper – Total	24.1	20.8	27.6
57–12–5	Cyanide – Total	2.1 U*	4.3 *	2.5 *
7439–89–6	Iron – Total	61400 E	19100 E	20700 E
7439–92–1	Lead – Total	83.6 + *	48.6 + *	31.1 *
7439–95–4	Magnesium – Total	5110	6850	6960
7439–96–5	Manganese – Total	477 EN	548 EN	442 EN
7439–97–6	Mercury – Total	0.18 U	0.11 U	0.15 U
7440–02–0	Nickel – Total	16.1	20.2	33.7
7440–09–7	Potassium – Total	1190 B	1090 B	1040 B
7782–49–2	Selenium – Total	1.3 UWN	0.88 UN	1.2 UWN
7440–22–4	Silver – Total	0.070 U	0.040 U	0.060 U
7440–23–5	Sodium – Total	506 B	265 B	253 U
7440–28–0	Thallium – Total	1.8 U	1.1 U	1.6 U
7440–62–2	Vanadium – Total	16.1 B	14.2	14.6 B
7440–66–6	Zinc – Total	171 E	79.2 E	377 E

NYSDEC – PSA WORK ASSIGNMENTS
ETE SANITATION SITE
Recra Environmental, Inc., Analytical Data
EP TOX METALS
SURFACE SOIL DATA

		FIELD SAMPLE ID:	SS001	SS003	SS004
		EPA SAMPLE ID:	SS-001	SS-003	SS-004
		LAB SAMPLE ID:	6280	6312	6283
		SDG:	SS001	SS001	SS001
		MATRIX:	**WATER**	**WATER**	**WATER**
		SAMPLED:	05/10/93	05/10/93	05/10/93
		RECEIVED:	05/11/93	05/11/93	05/11/93
		ANALYZED:	**5/14 – 6/4/93**	5/14 – 6/4/93	**5/14 – 6/4/93**
		% SOLIDS	0	0	0
CAS NO	COMPOUND	UNITS:	UG/L	UG/L	UG/L
	Aluminum – Dissolved		200 U*	410 *	240 *
	Antimony – Dissolved		5.0 U	5.0 U	5.0 U
	Arsenic – Dissolved		4.0 U	4.0 U	4.0 U
	Barium – Dissolved		338	82.5 B	344
	Beryllium – Dissolved		5.0 U	5.0 U	5.0 U
	Cadmium – Dissolved		0.40 BN	1.2 BN	0.70 BN
	Calcium – Dissolved		119000 BN	81000	85800
	Chromium – Dissolved		10 U*	10 U*	10 U*
	Cobalt – Dissolved		20.0 U	20.0 U	20.0 U
	Copper – Dissolved		10 U	10 U	10 U
	Cyanide – Dissolved		10 UN	10 UN	10 UN
	Iron – Dissolved		450	70.0 U	190
	Lead – Dissolved		3.0 UW	3.0 UW	3.0 UW
	Magnesium – Dissolved		9450	14000	18200
	Manganese – Dissolved		782 N*	847 N*	725 N*
	Mercury – Dissolved		0.20 U	0.20 U	0.20 U
	Nickel – Dissolved		30.0 U	30.0 U	32.0 B
	Potassium – Dissolved		1510 B	4360 B	1200 B
	Selenium – Dissolved		4.0 UW	4.0 U	4.0 U
	Silver – Dissolved		0.20 U	0.20 U	0.20 U
	Sodium – Dissolved		10100	800 U	3960 B
	Thallium – Dissolved		5.0 U	5.0 U	5.0 U
	Vanadium – Dissolved		20.0 U	20.0 U	20.0 U
	Zinc – Dissolved		31.5 *	259 *	77.0 *

NYSDEC – PSA WORK ASSIGNMENTS
ETE SANITATION SITE
Recra Environmental, Inc., Analytical Data
VOLATILES ASP91-1
SUB-SURFACE DATA

CAS NO	COMPOUND	FIELD SAMPLE ID:	DR1	SSMW1-S	SSMW2-S	SSMW3-D	SSB3	SSMW4
		EPA SAMPLE ID:	DR-1	SS-MW1S	SS-MW2	SS-MW3D	SS-B3	SS-MW4
		LAB SAMPLE ID:	AS032584	AS030602	AS032585	AS032286	AS032288	AS030601
		SDG:	MW3D	MW1S	MW3D	MW3D	MW3D	MW1S
		MATRIX:	WATER	SOIL	SOIL	SOIL	SOIL	SOIL
		SAMPLED:	04/08/93	03/24/93	04/08/93	04/08/93	04/08/93	03/24/93
		RECEIVED:	04/08/93	03/24/93	04/08/93	04/08/93	04/08/93	03/24/93
		ANALYZED:	04/12/93	03/29/93	04/12/93	04/08/93	04/08/93	03/29/93
		DIL FACTOR:	1	1	1	1	1	1
		UNITS:	UG/L	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
74-87-3	Chloromethane		10 U	12 U	12 U	11 U	11 U	12 U
74-83-9	Bromomethane		10 U	12 U	12 U	11 U	11 U	12 U
75-01-4	Vinyl chloride		10 U	12 U	12 U	11 U	11 U	12 U
75-00-3	Chloroethane		10 U	12 U	12 U	11 U	11 U	12 U
75-09-2	Methylene chloride		6 BJ	12 B	10 BJ	14 B	12 B	14 B
67-64-1	Acetone		10 U	19	19	10 J	14	16
75-15-0	Carbon Disulfide		10 U	12 U	1 J	11 U	11 U	12 U
75-35-4	1,1-Dichloroethene		10 U	12 U	12 U	11 U	11 U	12 U
75-34-3	1,1-Dichloroethane		10 U	12 U	12 U	11 U	11 U	12 U
540-59-0	1,2-Dichloroethene (Total)		10 U	12 U	12 U	11 U	11 U	12 U
67-66-3	Chloroform		2 J	12 U	12 U	11 U	11 U	12 U
107-06-2	1,2-Dichloroethane		10 U	12 U	12 U	11 U	11 U	12 U
78-93-3	2-Butanone		10 U	12 U	5 J	11 U	6 J	12 U
71-55-6	1,1,1-Trichloroethane		10 U	12 U	12 U	11 U	11 U	12 U
56-23-5	Carbon Tetrachloride		10 U	12 U	12 U	11 U	11 U	12 U
75-27-4	Bromodichloromethane		3 J	12 U	12 U	11 U	11 U	12 U
78-87-5	1,2-Dichloropropane		10 U	12 U	12 U	11 U	11 U	12 U
10061-02-6	cis-1,3-Dichloropropene		10 U	12 U	12 U	11 U	11 U	12 U
79-01-6	Trichloroethene		10 U	12 U	12 U	11 U	11 U	12 U
124-48-1	Dibromochloromethane		5 J	12 U	12 U	11 U	11 U	12 U
79-00-5	1,1,2-Trichloroethane		10 U	12 U	12 U	11 U	11 U	12 U
71-43-2	Benzene		10 U	12 U	1 J	11 U	11 U	12 U
10061-01-5	trans-1,3-Dichloropropene		10 U	12 U	12 U	11 U	11 U	12 U
75-25-2	Bromoform		3 J	12 U	12 U	11 U	11 U	12 U
108-10-1	4-Methyl-2-pentanone		10 U	12 U	12 U	11 U	11 U	12 U
591-78-6	2-Hexanone		10 U	12 U	12 U	11 U	11 U	12 U
127-18-4	Tetrachloroethene		10 U	12 U	12 U	11 U	11 U	12 U
79-34-5	1,1,2,2-Tetrachloroethane		10 U	12 U	12 U	11 U	11 U	12 U
108-88-3	Toluene		10 U	12 U	12 U	11 U	1 J	12 U
108-90-7	Chlorobenzene		10 U	12 U	12 U	11 U	11 U	12 U
100-41-4	Ethyl benzene		10 U	12 U	12 U	11 U	11 U	12 U
100-42-5	Styrene		10 U	12 U	12 U	11 U	11 U	12 U
1330-20-7	Total Xylenes		10 U	12 U	12 U	11 U	11 U	12 U

NYSDEC - PSA WORK ASSIGNMENTS
ETE SANITATION SITE
Recra Environmental, Inc., Analytical Data
SEMIVOLATILES ASP81-2
SUB-SURFACE DATA

		FIELD SAMPLE ID:	DR1	SSMW1-S	SSMW2-S	SSMW3-D	SSB3	SSMW4
		EPA SAMPLE ID:	DR-1	SS-MW1S	SS-MW2	SS-MW3D	SS-B3	SS-MW4
		LAB SAMPLE ID:	AS032584	AS030602	AS032585	AS032286	AS032288	AS030601
		SDG:	MW3D	MW1S	MW3D	MW3D	MW3D	MW1S
		MATRIX:	**WATER**	**SOIL**	**SOIL**	**SOIL**	**SOIL**	**SOIL**
		SAMPLED:	04/08/93	03/24/93	04/08/93	04/08/93	04/08/93	03/24/93
		RECEIVED:	04/08/93	03/24/93	04/08/93	04/08/93	04/08/93	03/24/93
		EXTRACTED:	04/13/93	03/29/93	04/12/93	04/09/93	04/09/93	03/29/93
		ANALYZED:	04/14/93	04/01/93	04/15/93	04/15/93	04/15/93	04/01/93
		DIL FACTOR:	1	1	1	1	1	1
CAS NO	COMPOUND	UNITS:	UG/L	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
108-95-2	Phenol		10 U	400 U	390 U	380 U	370 U	380 U
111-44-4	Bis(2-chloroethyl) ether		10 U	400 U	120 J	380 U	370 U	380 U
95-57-8	2-Chlorophenol		10 U	400 U	390 U	380 U	370 U	380 U
541-73-1	1,3-Dichlorobenzene		10 U	400 U	390 U	380 U	370 U	380 U
106-46-7	1,4-Dichlorobenzene		10 U	400 U	390 U	380 U	370 U	380 U
95-50-1	1,2-Dichlorobenzene		10 U	400 U	390 U	380 U	370 U	380 U
95-48-7	2-Methylphenol		10 U	400 U	390 U	380 U	370 U	380 U
108-60-1	Bis(2-chloroisopropyl) ether		10 U	400 U	390 U	380 U	370 U	380 U
106-44-5	4-Methylphenol		10 U	400 U	390 U	380 U	370 U	380 U
621-64-7	N-Nitroso-Di-n-propylamine		10 U	400 U	390 U	380 U	370 U	380 U
67-72-1	Hexachloroethane		10 U	400 U	390 U	380 U	370 U	380 U
98-95-3	Nitrobenzene		10 U	400 U	390 U	380 U	370 U	380 U
78-59-1	Isophorone		10 U	400 U	390 U	380 U	370 U	380 U
88-75-5	2-Nitrophenol		10 U	400 U	390 U	380 U	370 U	380 U
105-67-9	2,4-Dimethylphenol		10 U	400 U	390 U	380 U	370 U	380 U
111-91-1	Bis(2-chloroethoxy) methane		10 U	400 U	390 U	380 U	370 U	380 U
120-83-2	2,4-Dichlorophenol		10 U	400 U	390 U	380 U	370 U	380 U
120-82-1	1,2,4-Trichlorobenzene		10 U	400 U	390 U	380 U	370 U	380 U
91-20-3	Naphthalene		10 U	400 U	390 U	380 U	370 U	380 U
106-47-8	4-Chloroaniline		10 U	400 U	390 U	380 U	370 U	380 U
87-68-3	Hexachlorobutadiene		10 U	400 U	390 U	380 U	370 U	380 U
59-50-7	4-Chloro-3-methylphenol		10 U	400 U	390 U	380 U	370 U	380 U
91-57-6	2-Methylnaphthalene		10 U	400 U	390 U	380 U	370 U	380 U
77-47-4	Hexachlorocyclopentadiene		10 U	400 U	390 U	380 U	370 U	380 U
88-06-2	2,4,6-Trichlorophenol		10 U	400 U	390 U	380 U	370 U	380 U
95-95-4	2,4,5-Trichlorophenol		25 U	960 U	940 U	920 U	910 U	930 U
91-58-7	2-Chloronaphthalene		10 U	400 U	390 U	380 U	370 U	380 U
88-74-4	2-Nitroaniline		25 U	960 U	940 U	920 U	910 U	930 U
131-11-3	Dimethylphthalate		10 U	400 U	390 U	380 U	370 U	380 U
208-96-8	Acenaphthylene		10 U	400 U	390 U	380 U	370 U	380 U
606-20-2	2,6-Dinitrotoluene		10 U	400 U	390 U	380 U	370 U	380 U
99-09-2	3-Nitroaniline		25 U	960 U	940 U	920 U	910 U	930 U
83-32-9	Acenaphthene		10 U	400 U	390 U	380 U	370 U	380 U

NYSDEC – PSA WORK ASSIGNMENTS
ETE SANITATION SITE
Recra Environmental, Inc., Analytical Data
SEMIVOLATILES ASP91–2
SUB–SURFACE DATA

CAS NO	COMPOUND	FIELD SAMPLE ID:	DR1	SSMW1–S	SSMW2–S	SSMW3–D	SSB3	SSMW4
		EPA SAMPLE ID:	DR–1	SS–MW1S	SS–MW2	SS–MW3D	SS–B3	SS–MW4
		LAB SAMPLE ID:	AS032584	AS030602	AS032585	AS032288	AS032288	AS030601
		SDG:	MW3D	MW1S	MW3D	MW3D	MW3D	MW1S
		MATRIX:	**WATER**	**SOIL**	**SOIL**	**SOIL**	**SOIL**	**SOIL**
		SAMPLED:	04/08/93	03/24/93	04/08/93	04/08/93	04/08/93	03/24/93
		RECEIVED:	04/08/93	03/24/93	04/08/93	04/08/93	04/08/93	03/24/93
		EXTRACTED:	04/13/93	03/29/93	04/12/93	04/09/93	04/09/93	03/29/93
		ANALYZED:	04/14/93	04/01/93	04/15/93	04/15/93	04/15/93	04/01/93
		DIL FACTOR:	1	1	1	1	1	1
		UNITS:	UG/L	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
51–28–5	2,4–Dinitrophenol		25 U	960 U	940 U	920 U	910 U	930 U
100–02–7	4–Nitrophenol		25 U	960 U	940 U	920 U	910 U	930 U
132–64–9	Dibenzo(a,h)anthracene		10 U	400 U	390 U	380 U	370 U	380 U
121–14–2	2,4–Dinitrotoluene		10 U	400 U	390 U	380 U	370 U	380 U
84–66–2	Diethyl phthalate		10 U	400 U	390 U	380 U	370 U	380 U
7005–72–3	4–Chlorodiphenylether		10 U	400 U	390 U	380 U	370 U	380 U
86–73–7	Fluorene		10 U	400 U	390 U	380 U	370 U	380 U
100–01–6	4–Nitroaniline		25 U	960 U	940 U	920 U	910 U	930 U
534–52–1	4,6–Dinitro–2–methylphenol		25 U	960 U	940 U	920 U	910 U	930 U
86–30–6	N–nitrosodiphenylamine		10 U	400 U	390 U	380 U	370 U	380 U
101–55–3	4–Bromophenyl phenyl ether		10 U	400 U	390 U	380 U	370 U	380 U
118–74–1	Hexachlorobenzene		10 U	400 U	390 U	380 U	370 U	380 U
87–86–5	Pentachlorophenol		25 U	960 U	940 U	920 U	910 U	930 U
85–01–8	Phenanthrene		10 U	400 U	390 U	380 U	370 U	380 U
120–12–7	Anthracene		10 U	400 U	390 U	380 U	370 U	380 U
86–74–8	Carbazole		10 U	400 U	390 U	380 U	370 U	380 U
84–74–2	Di–n–butyl phthalate		10 U	210 J	390 U	380 U	370 U	110 J
206–44–0	Fluoranthene		10 U	400 U	390 U	380 U	370 U	380 U
129–00–0	Pyrene		10 U	400 U	390 U	380 U	370 U	380 U
85–68–7	Butyl benzyl phthalate		10 U	400 U	390 U	380 U	370 U	380 U
91–94–1	3,3'–Dichlorobenzidine		10 U	400 U	390 U	380 U	370 U	380 U
56–55–3	Benzo(a)anthracene		10 U	400 U	390 U	380 U	370 U	380 U
218–01–9	Chrysene		10 U	400 U	390 U	380 U	370 U	380 U
117–81–7	Bis(2–ethylhexyl) phthalate		4 J	48 J	390 U	380 U	370 U	380 U
117–84–0	Di–n–octyl phthalate		10 U	400 U	390 U	380 U	370 U	380 U
205–99–2	Benzo(b)fluoranthene		10 U	400 U	390 U	380 U	370 U	380 U
207–08–9	Benzo(k)fluoranthene		10 U	400 U	390 U	380 U	370 U	380 U
50–32–8	Benzo(a)pyrene		10 U	400 U	390 U	380 U	370 U	380 U
193–39–5	Indeno(1,2,3–cd)pyrene		10 U	400 U	390 U	380 U	370 U	380 U
53–70–3	Dibenzofuran		10 U	400 U	390 U	380 U	370 U	380 U
191–24–2	Benzo(ghi)perylene		10 U	400 U	390 U	380 U	370 U	380 U

NYSDEC - PSA WORK ASSIGNMENTS
ETE SANITATION SITE
Recra Environmental, Inc., Analytical Data
PESTICIDES/AROCLORS ASP91-3
SUB-SURFACE DATA

		FIELD SAMPLE ID:	DR1	SSMW1-S	SSMW2-S	SSMW3-D	SSB3	SSMW4
		EPA SAMPLE ID:	DR-1	SS-MW1S	SS-MW2	SS-MW3D	SS-B3	SS-MW4
		LAB SAMPLE ID:	AS032584	AS030602	AS032585	AS032288	AS032288	AS030601
		SDG:	MW3D	MW1S	MW3D	MW3D	MW3D	MW1S
		MATRIX:	**WATER**	**SOIL**	**SOIL**	**SOIL**	**SOIL**	**SOIL**
		SAMPLED:	04/08/93	03/24/93	04/08/93	04/06/93	04/06/93	03/24/93
		RECEIVED:	04/08/93	03/24/93	04/08/93	04/06/93	04/06/93	03/24/93
		EXTRACTED:	04/13/93	03/29/93	04/12/93	04/09/93	04/09/93	03/29/93
		ANALYZED:	04/15/93	04/02/93	04/19/93	04/19/93	04/19/93	04/02/93
		DIL FACTOR:	1	1	1	1	1	1
CAS NO	COMPOUND	UNITS:	UG/L	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
319-84-6	alpha-BHC		0.050 U	4.0 U	2.0 U	2.0 U	1.9 U	3.8 U
319-85-7	beta-BHC		0.050 U	4.0 U	2.0 U	2.0 U	1.9 U	3.8 U
319-86-8	delta-BHC		0.050 U	4.0 U	2.0 U	2.0 U	1.9 U	3.8 U
58-89-9	gamma-BHC (Lindane)		0.050 U	2.0 U	2.0 U	2.0 U	1.9 U	2.0 U
76-44-8	Heptachlor		0.050 U	2.0 U	2.0 U	2.0 U	1.9 U	2.0 U
309-00-2	Aldrin		0.050 U	2.0 U	2.0 U	2.0 U	0.21 JP	2.0 U
1024-57-3	Heptachlor epoxide		0.050 U	40 U	2.0 U	2.0 U	1.9 U	38 U
959-98-8	Endosulfan I		0.050 U	81 U	2.0 U	2.0 U	1.9 U	78 U
60-57-1	Dieldrin		0.10 U	40 U	3.9 U	3.8 U	3.7 U	38 U
72-55-9	4,4'-DDE		0.10 U	40 U	3.9 U	3.8 U	3.7 U	38 U
72-20-8	Endrin		0.10 U	40 U	3.9 U	3.8 U	3.7 U	38 U
33213-65-9	Endosulfan II		0.10 U	40 U	1.2 JP	3.8 U	3.7 U	38 U
72-54-8	4,4'-DDD		0.10 U	40 U	3.9 U	3.8 U	3.7 U	38 U
1031-07-8	Endosulfan Sulfate		0.10 U	2.0 U	3.9 U	3.8 U	3.7 U	2.0 U
50-29-3	4,4'-DDT		0.10 U	2.0 U	3.9 U	3.8 U	3.7 U	2.0 U
72-43-5	Methoxychlor		0.50 U	4.0 U	20 U	20 U	19 U	3.8 U
53494-70-5	Endrin ketone		0.10 U	2.0 U	3.9 U	3.8 U	3.7 U	2.0 U
7421-93-4	Endrin aldehyde		0.10 U	4.0 U	3.9 U	3.8 U	3.7 U	3.8 U
5103-71-9	alpha-Chlordane		0.050 U	4.0 U	2.0 U	2.0 U	1.9 U	3.8 U
5103-74-2	gamma-Chlordane		0.050 U	4.0 U	2.0 U	2.0 U	1.9 U	3.8 U
8001-35-2	Toxaphene		5.0 U	4.0 U	200 U	200 U	190 U	3.8 U
12674-11-2	Aroclor 1016		1.0 U	4.0 U	39 U	38 U	37 U	3.8 U
11104-28-2	Aroclor 1221		2.0 U	2.0 U	78 U	77 U	76 U	2.0 U
11141-16-5	Aroclor 1232		1.0 U	2.0 U	39 U	38 U	37 U	2.0 U
53469-21-9	Aroclor 1242		1.0 U	2.0 U	39 U	38 U	37 U	2.0 U
12672-29-6	Aroclor 1248		1.0 U	2.0 U	39 U	38 U	37 U	2.0 U
11097-69-1	Aroclor 1254		1.0 U	20 U	39 U	38 U	37 U	20 U
11096-82-5	Aroclor 1260		1.0 U	200 U	39 U	38 U	37 U	200 U

NYSDEC – PSA WORK ASSIGNMENTS
ETE SANITATION SITE
Recra Environmental, Inc., Analytical Data
TOTAL METALS
SUB–SURFACE DATA

		FIELD SAMPLE ID:	DR1	SSMW1–S	SSMW2–S	MW3–D	SSMW4
		EPA SAMPLE ID:	DR–1	SS–MW1S	SS–MW2	SS–MW3D	SS–MW4
		LAB SAMPLE ID:	AS032584	5300	5396	AS032288	5299
		SDG:	MW3D	MW1S	MW3D	MW3D	MW1S
		MATRIX:	**WATER**	**SOIL**	**SOIL**	**SOIL**	**SOIL**
		SAMPLED:	04/08/93	03/24/93	04/08/93	04/06/93	03/24/93
		RECEIVED:	04/08/93	03/24/93	04/08/93	04/06/93	03/24/93
		ANALYZED:	4/17–27/93	4/13–16/93	4/17–27/93	4/17–27/93	4/13–16/93
		% SOLIDS	**0**	**81.3**	**86.2**	**85.6**	**87.9**
CAS NO	COMPOUND	UNITS:	UG/L	MG/KG	MG/KG	MG/KG	MG/KG
7429–90–5	Aluminum – Total		218	8670	9380	12100	6120
7440–36–0	Antimony – Total		5.0 U	13.7 U	13.6 UN	13.8 UN	12.4 U
7440–38–2	Arsenic – Total		4.0 U	7.7	8.2	9.1	5.9
7440–39–3	Barium – Total		178 B	34.5 B	32.1 B	69.7	26.2 B
7440–41–7	Beryllium – Total		5.0 UN	1.1 U	1.1 UN	1.2 UN	1.0 U
7440–43–9	Cadmium – Total		0.20 BN	0.37 B	0.42 B+N	0.16 BN	0.46 BS
7440–70–2	Calcium – Total		50800 *	19500	13400 *	34100 *	16800
7440–47–3	Chromium – Total		10 U*	13.3	12.1 *	17.4 *	10
7440–48–4	Cobalt – Total		20.0 UN	7.7 B	8.3 BN	10 BN	5.7 B
7440–50–8	Copper – Total		10 UN*	24.1	18.8 N*	26.7 N*	16.7
57–12–5	Cyanide – Total		10 UN	1.5 U	1.4 UN	1.5 UN	1.4 U
7439–89–6	Iron – Total		1990 *	23700	21100 *	27100 *	16800
7439–92–1	Lead – Total		3.0	18.8 S	12.1	19.2 S	9.3
7439–95–4	Magnesium – Total		14400	8510	5880	11600	6080
7439–96–5	Manganese – Total		59.5 N	524	450 N	462 N	552
7439–97–6	Mercury – Total		0.20 U	0.11 U	0.12 U	0.11 U	0.11 U
7440–02–0	Nickel – Total		30.0 UN	24.5	22.9 N	33.4 N	17.1
7440–09–7	Potassium – Total		1660 B	927 B	1170	2120	720 B
7782–49–2	Selenium – Total		4.0 UN	0.93 UW	0.87 UN	0.91 UN	0.87 UW
7440–22–4	Silver – Total		10 UN	0.050 U	2.3 UN	2.3 UN	0.040 U
7440–23–5	Sodium – Total		20500	182 U	215 B	261 B	810 B
7440–28–0	Thallium – Total		5.0 UW	1.2 UW	1.1 U	1.1 UW	1.1 UW
7440–62–2	Vanadium – Total		20.0 U	16.6	15.4	19.9	11.7
7440–66–6	Zinc – Total		10.5 BN	95.5	98.3 N	75.8 N	74.6

NYSDEC – PSA WORK ASSIGNMENTS
ETE SANITATION SITE
Recra Environmental, Inc., Analytical Data
VOLATILES ASP91-1
GROUNDWATER DATA

CAS NO	COMPOUND	FIELD SAMPLE ID:	GW01-D	GW01-S	GW02-D	GW02-DRE	GW02-S	GW03-S	GW004	GW005	TB
		EPA SAMPLE ID:	GW-01D	GW-01S	GW-02D	GW-02DRE	GW-02S	GW-03S	GW-004	GW-005	TRIP BLANK
		LAB SAMPLE ID:	AS035590	AS035589	AS035596	AS035596RI	AS035595	AS035591	AS035594	AS035598	AS035599
		SDG:	GW01S	GW01S	GW01S	GW01S	GW01S	GW01S	GW01S	GW01S	GW01S
		MATRIX:	**WATER**	**WATER**	**WATER**	**WATER**	**WATER**	**WATER**	**WATER**	**WATER**	**WATER**
		SAMPLED:	05/10/93	05/10/93	05/11/93	05/11/93	05/11/93	05/11/93	05/11/93	05/10/93	05/10/93
		RECEIVED:	05/11/93	05/11/93	05/11/93	05/11/93	05/11/93	05/11/93	05/11/93	05/11/93	05/11/93
		ANALYZED:	05/15/93	**05/15/93**	05/15/93	**05/17/93**	**05**/15/93	**05/15/93**	**05/15**/93	05/15/**93**	**05/15/93**
		DIL FACTOR:	1	1	1	1	1	1	1	1	1
		UNITS:	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
74-87-3	Chloromethane		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
74-83-9	Bromomethane		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
75-01-4	Vinyl chloride		10 U	10 U	10 U	10 U	10 U	21	10 U	10 U	10 U
75-00-3	Chloroethane		10 U	10 U	10 U	10 U	10 U	67	10 U	10 U	10 U
75-09-2	Methylene chloride		35 B	3 BJ	24 B	8 BJ	26 B	25 B	21 B	23 B	2 BJ
67-64-1	Acetone		23 B	10 U	15 B	10 U	14 B	15 B	12 B	14 B	4 BJ
75-15-0	Carbon Disulfide		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
75-35-4	1,1-Dichloroethene		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
75-34-3	1,1-Dichloroethane		10 U	10 U	10 U	10 U	10 U	2 J	1 J	10 U	10 U
540-59-0	1,2-Dichloroethene (Total)		10 U	10 U	10 U	10 U	10 U	150	1 J	10 U	10 U
67-66-3	Chloroform		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
107-06-2	1,2-Dichloroethane		10 U	10 U	10 U	10 U	10 U	1 J	3 J	10 U	10 U
78-93-3	2-Butanone		15 B	9 BJ	12 B	10 U	12 B	13 B	13 B	13 B	9 BJ
71-55-6	1,1,1-Trichloroethane		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
56-23-5	Carbon Tetrachloride		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
75-27-4	Bromodichloromethane		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
78-87-5	1,2-Dichloropropane		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
10061-02-6	cis-1,3-Dichloropropene		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
79-01-6	Trichloroethene		10 U	10 U	10 U	10 U	10 U	54	10 U	10 U	10 U
124-48-1	Dibromochloromethane		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
79-00-5	1,1,2-Trichloroethane		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
71-43-2	Benzene		10 U	10 U	10 U	10 U	10 U	10 U	2 J	10 U	10 U
10061-01-5	trans-1,3-Dichloropropene		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
75-25-2	Bromoform		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
108-10-1	4-Methyl-2-pentanone		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
591-78-6	2-Hexanone		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
127-18-4	Tetrachloroethene		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
79-34-5	1,1,2,2-Tetrachloroethane		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
108-88-3	Toluene		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
108-90-7	Chlorobenzene		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
100-41-4	Ethyl benzene		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
100-42-5	Styrene		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1330-20-7	Total Xylenes		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U

NYSDEC - PSA WORK ASSIGNMENTS
ETE SANITATION SITE
Recra Environmental, Inc., Analytical Data
SEMIVOLATILES ASP91-2
GROUNDWATER DATA

CAS NO	COMPOUND	FIELD SAMPLE ID:	GW01-D	GW01-S	GW02-D	GW02-S	GW03-S	GW004	GW005
		EPA SAMPLE ID:	GW-01D	GW-01S	GW-02D	GW-02S	GW-03S	GW-004	GW-005
		LAB SAMPLE ID:	AS035590	AS035589	AS035596	AS035595	AS035591	AS035594	AS035598
		SDG:	GW01S	GW01S	GW01S	GW01S	GW01S	GW01S	GW01S
		MATRIX:	WATER	WATER	WATER	WATER	WATER	WATER	WATER
		SAMPLED:	05/10/93	05/10/93	05/11/93	05/11/93	05/11/93	05/11/93	05/10/93
		RECEIVED:	05/11/93	05/11/93	05/11/93	05/11/93	05/11/93	05/11/93	05/11/93
		EXTRACTED:	05/14/93	05/14/93	05/14/93	05/14/93	05/14/93	05/14/93	05/14/93
		ANALYZED:	05/28/93	05/27/93	05/28/93	05/28/93	05/28/93	05/28/93	05/28/93
		DIL FACTOR:	1	1	1	1	1	1	1
		UNITS:	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
108-95-2	Phenol		10 U	10 U	10 U	10 U	10 U	10 U	10 U
111-44-4	Bis(2-chloroethyl) ether		10 U	10 U	10 U	10 U	10 U	10 U	10 U
95-57-8	2-Chlorophenol		10 U	10 U	10 U	10 U	10 U	10 U	10 U
541-73-1	1,3-Dichlorobenzene		10 U	10 U	10 U	10 U	10 U	10 U	10 U
106-46-7	1,4-Dichlorobenzene		10 U	10 U	10 U	10 U	10 U	10 U	10 U
95-50-1	1,2-Dichlorobenzene		10 U	10 U	10 U	10 U	10 U	10 U	10 U
95-48-7	2-Methylphenol		10 U	10 U	10 U	10 U	10 U	10 U	10 U
108-60-1	Bis(2-chloroisopropyl) ether		10 U	10 U	10 U	10 U	10 U	10 U	10 U
106-44-5	4-Methylphenol		10 U	10 U	10 U	10 U	10 U	10 U	10 U
621-64-7	N-Nitroso-Di-n-propylamine		10 U	10 U	10 U	10 U	10 U	10 U	10 U
67-72-1	Hexachloroethane		10 U	10 U	10 U	10 U	10 U	10 U	10 U
98-95-3	Nitrobenzene		10 U	10 U	10 U	10 U	10 U	10 U	10 U
78-59-1	Isophorone		10 U	10 U	10 U	10 U	10 U	10 U	10 U
88-75-5	2-Nitrophenol		10 U	10 U	10 U	10 U	10 U	10 U	10 U
105-67-9	2,4-Dimethylphenol		10 U	10 U	10 U	10 U	10 U	10 U	10 U
111-91-1	Bis(2-chloroethoxy) methane		10 U	10 U	10 U	10 U	10 U	10 U	10 U
120-83-2	2,4-Dichlorophenol		10 U	10 U	10 U	10 U	10 U	10 U	10 U
120-82-1	1,2,4-Trichlorobenzene		10 U	10 U	10 U	10 U	10 U	10 U	10 U
91-20-3	Naphthalene		10 U	10 U	10 U	10 U	10 U	10 U	10 U
106-47-8	4-Chloroaniline		10 U	10 U	10 U	10 U	10 U	10 U	10 U
87-68-3	Hexachlorobutadiene		10 U	10 U	10 U	10 U	10 U	10 U	10 U
59-50-7	4-Chloro-3-methylphenol		10 U	10 U	10 U	10 U	10 U	10 U	10 U
91-57-6	2-Methylnaphthalene		10 U	10 U	10 U	10 U	10 U	10 U	10 U
77-47-4	Hexachlorocyclopentadiene		10 U	10 U	10 U	10 U	10 U	10 U	10 U
88-06-2	2,4,6-Trichlorophenol		10 U	10 U	10 U	10 U	10 U	10 U	10 U
95-95-4	2,4,5-Trichlorophenol		25 U	25 U	25 U	25 U	25 U	25 U	25 U
91-58-7	2-Chloronaphthalene		10 U	10 U	10 U	10 U	10 U	10 U	10 U
88-74-4	2-Nitroaniline		25 U	25 U	25 U	25 U	25 U	25 U	25 U
131-11-3	Dimethyl phthalate		10 U	10 U	10 U	10 U	10 U	10 U	10 U
208-96-8	Acenaphthylene		10 U	10 U	10 U	10 U	10 U	10 U	10 U
606-20-2	2,6-Dinitrotoluene		10 U	10 U	10 U	10 U	10 U	10 U	10 U
99-09-2	3-Nitroaniline		25 U	25 U	25 U	25 U	25 U	25 U	25 U
83-32-9	Acenaphthene		10 U	10 U	10 U	10 U	10 U	10 U	10 U

NYSDEC – PSA WORK ASSIGNMENTS
ETE SANITATION SITE
Recra Environmental, Inc., Analytical Data
SEMIVOLATILES ASP91-2
GROUNDWATER DATA

CAS NO	COMPOUND	FIELD SAMPLE ID:	GW01-D	GW01-S	GW02-D	GW02-S	GW03-S	GW004	GW005
		EPA SAMPLE ID:	GW-01D	GW-01S	GW-02D	GW-02S	GW-03S	GW-004	GW-005
		LAB SAMPLE ID:	AS035590	AS035589	AS035596	AS035595	AS035591	AS035594	AS035598
		SDG:	GW01S	GW01S	GW01S	GW01S	GW01S	GW01S	GW01S
		MATRIX:	WATER	WATER	WATER	WATER	WATER	WATER	WATER
		SAMPLED:	05/10/93	05/10/93	05/11/93	05/11/93	05/11/93	05/11/93	05/10/93
		RECEIVED:	05/11/93	05/11/93	05/11/93	05/11/93	05/11/93	05/11/93	05/11/93
		EXTRACTED:	05/14/93	05/14/93	05/14/93	05/14/93	05/14/93	05/14/93	05/14/93
		ANALYZED:	05/28/93	05/27/93	05/28/93	05/28/93	05/28/93	05/28/93	05/28/93
		DIL FACTOR:	1	1	1	1	1	1	1
		UNITS:	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
51-28-5	2,4-Dinitrophenol		25 U	25 U	25 U	25 U	25 U	25 U	25 U
100-02-7	4-Nitrophenol		25 U	25 U	25 U	25 U	25 U	25 U	25 U
132-64-9	Dibenzo(a,h)anthracene		10 U	10 U	10 U	10 U	10 U	10 U	10 U
121-14-2	2,4-Dinitrotoluene		10 U	10 U	10 U	10 U	10 U	10 U	10 U
84-66-2	Diethyl phthalate		10 U	10 U	10 U	10 U	10 U	10 U	10 U
7005-72-3	4-Chlorodiphenylether		10 U	10 U	10 U	10 U	10 U	10 U	10 U
86-73-7	Fluorene		10 U	10 U	10 U	10 U	10 U	10 U	10 U
100-01-6	4-Nitroaniline		25 U	25 U	25 U	25 U	25 U	25 U	25 U
534-52-1	4,6-Dinitro-2-methylphenol		25 U	25 U	25 U	25 U	25 U	25 U	25 U
86-30-6	N-nitrosodiphenylamine		10 U	10 U	10 U	10 U	10 U	10 U	10 U
101-55-3	4-Bromophenyl phenyl ether		10 U	10 U	10 U	10 U	10 U	10 U	10 U
118-74-1	Hexachlorobenzene		10 U	10 U	10 U	10 U	10 U	10 U	10 U
87-86-5	Pentachlorophenol		25 U	25 U	25 U	25 U	25 U	25 U	25 U
85-01-8	Phenanthrene		10 U	10 U	10 U	10 U	10 U	10 U	10 U
120-12-7	Anthracene		10 U	10 U	10 U	10 U	10 U	10 U	10 U
86-74-8	Carbazole		10 U	10 U	10 U	10 U	10 U	10 U	10 U
84-74-2	Di-n-butyl phthalate		10 U	10 U	10 U	10 U	10 U	10 U	10 U
206-44-0	Fluoranthene		10 U	10 U	10 U	10 U	10 U	10 U	10 U
129-00-0	Pyrene		10 U	10 U	10 U	10 U	10 U	10 U	10 U
85-68-7	Butyl benzyl phthalate		10 U	10 U	10 U	10 U	10 U	10 U	10 U
91-94-1	3,3'-Dichlorobenzidine		10 U	10 U	10 U	10 U	10 U	10 U	10 U
56-55-3	Benzo(a)anthracene		10 U	10 U	10 U	10 U	10 U	10 U	10 U
218-01-9	Chrysene		10 U	10 U	10 U	10 U	10 U	10 U	10 U
117-81-7	Bis(2-ethylhexyl) phthalate		10 U	10 U	10 U	10 U	10 U	10 U	10 U
117-84-0	Di-n-octyl phthalate		10 U	10 U	10 U	10 U	10 U	10 U	10 U
205-99-2	Benzo(b)fluoranthene		10 U	10 U	10 U	10 U	10 U	10 U	10 U
207-08-9	Benzo(k)fluoranthene		10 U	10 U	10 U	10 U	10 U	10 U	10 U
50-32-8	Benzo(a)pyrene		10 U	10 U	10 U	10 U	10 U	10 U	10 U
193-39-5	Indeno(1,2,3-cd)pyrene		10 U	10 U	10 U	10 U	10 U	10 U	10 U
53-70-3	Dibenzofuran		10 U	10 U	10 U	10 U	10 U	10 U	10 U
191-24-2	Benzo(ghi)perylene		10 U	10 U	10 U	10 U	10 U	10 U	10 U

NYSDEC – PSA WORK ASSIGNMENTS
ETE SANITATION SITE
Recra Environmental, Inc., Analytical Data
PESTICIDES/AROCLORS ASP91–3
GROUNDWATER DATA

CAS NO	COMPOUND	FIELD SAMPLE ID:	GW01–D	GW01–S	GW02–D	GW02–S	GW03–S	GW004	GW005
		EPA SAMPLE ID:	GW–01D	GW–01S	GW–02D	GW–02S	GW–03S	GW–004	GW–005
		LAB SAMPLE ID:	AS035590	AS035589	AS035596	AS035595	AS035591	AS035594	AS035598
		SDG:	GW01S	GW01S	GW01S	GW01S	GW01S	GW01S	GW01S
		MATRIX:	WATER	WATER	WATER	WATER	WATER	WATER	WATER
		SAMPLED:	05/10/93	05/10/93	05/11/93	05/11/93	05/11/93	05/11/93	05/10/93
		RECEIVED:	05/11/93	05/11/93	05/11/93	05/11/93	05/11/93	05/11/93	05/11/93
		EXTRACTED:	05/14/93	05/14/93	05/14/93	05/14/93	05/14/93	05/14/93	05/14/93
		ANALYZED:	05/27/93	05/27/93	05/27/93	05/27/93	05/27/93	05/27/93	05/28/93
		DIL FACTOR:	1	1	1	1	1	1	1
		UNITS:	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
319–84–6	alpha–BHC		0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U
319–85–7	beta–BHC		0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U
319–86–8	delta–BHC		0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U
58–89–9	gamma–BHC (Lindane)		0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U
76–44–8	Heptachlor		0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U
309–00–2	Aldrin		0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U
1024–57–3	Heptachlor epoxide		0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U
959–98–8	Endosulfan I		0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U
60–57–1	Dieldrin		0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
72–55–9	4,4'–DDE		0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
72–20–8	Endrin		0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
33213–65–9	Endosulfan II		0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
72–54–8	4,4'–DDD		0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
1031–07–8	Endosulfan Sulfate		0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
50–29–3	4,4'–DDT		0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
72–43–5	Methoxychlor		0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
53494–70–5	Endrin ketone		0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
7421–93–4	Endrin aldehyde		0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
5103–71–9	alpha–Chlordane		0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U
5103–74–2	gamma–Chlordane		0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U
8001–35–2	Toxaphene		5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
12674–11–2	Aroclor 1016		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
11104–28–2	Aroclor 1221		2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
11141–16–5	Aroclor 1232		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
53469–21–9	Aroclor 1242		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
12672–29–6	Aroclor 1248		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
11097–69–1	Aroclor 1254		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
11096–82–5	Aroclor 1260		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U

NYSDEC – PSA WORK ASSIGNMENTS
ETE SANITATION SITE
Recra Environmental, Inc., Analytical Data
TOTAL METALS
GROUNDWATER DATA

CAS NO	COMPOUND	FIELD SAMPLE ID:	GW01-D	GW01-S	GW02-D	GW02-S	GW03-S	GW004
		EPA SAMPLE ID:	GW-01D	GW-01S	GW-02D	GW-02S	GW-03S	GW-004
		LAB SAMPLE ID:	6195	6192	6201	6200	6196	6199
		SDG:	GW01S	GW01S	GW01S	GW01S	GW01S	GW01S
		MATRIX:	WATER	WATER	WATER	WATER	WATER	WATER
		SAMPLED:	05/10/93	05/10/93	05/11/93	05/11/93	05/11/93	05/11/93
		RECEIVED:	05/11/93	05/11/93	05/11/93	05/11/93	05/11/93	05/11/93
		ANALYZED:	5/14-28/93	5/14-28/93	5/14-28/93	5/14-28/93	5/14-28/93	5/14-28/93
		% SOLIDS	0	0	0	0	0	0
		UNITS:	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
7429-90-5	Aluminum – Total		3740 N	6600 N	285 N	21600 N	2050 N	8380 N
7440-36-0	Antimony – Total		5.0 UN	5.0 UN	5.0 UN	5.0 UN	5.0 UN	5.0 UN
7440-38-2	Arsenic – Total		6.0 B	4.0 U	4.0 U	13.0	4.0 UW	12.0
7440-39-3	Barium – Total		183 B	67.7 B	67.3 B	201	159 B	550
7440-41-7	Beryllium – Total		5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
7440-43-9	Cadmium – Total		0.20 BN	0.40 BN	0.20 BN	0.70 BN	0.50 BN	3.0 BSN
7440-70-2	Calcium – Total		88600	72600	50600	148000 B	135000 B	282000 B
7440-47-3	Chromium – Total		10 U*	10 U*	10 U*	27.0 *	10 U*	27.8 *
7440-48-4	Cobalt – Total		20.0 U	20.0 U	20.0 U	25.4 B	20.0 U	20.0 U
7440-50-8	Copper – Total		11.3 B	22.2 B	10 U	58.7	12.7 B	34.9
7439-89-6	Iron – Total		12600 *	15300 *	358 *	43900 *	4120 *	20400 *
7439-92-1	Lead – Total		4.0 N	7.0 N	3.0 UN	31.0 N	3.0 UWN	6.0 UEN
7439-95-4	Magnesium – Total		19600	26800	15900	38000	31300	79700
7439-96-5	Manganese – Total		522 N*	450 N*	68.6 N*	1260 N*	4010 N*	13000 N*
7439-97-6	Mercury – Total		0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
7440-02-0	Nickel – Total		30.0 U	30.0 U	30.0 U	46.9	49.9	183
7440-09-7	Potassium – Total		3850 B	2940 B	3630 B	7080	20800	80300
7782-49-2	Selenium – Total		4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U
7440-22-4	Silver – Total		0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.40 BW
7440-23-5	Sodium – Total		52200	6680	10800	25000	270000	2880000
7440-28-0	Thallium – Total		5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
7440-62-2	Vanadium – Total		20.0 U	20.0 U	20.0 U	38.6 B	20.0 U	20.0 U
7440-66-6	Zinc – Total		38.1	82.6	21.4	410	35.6	499
57-12-5	Cyanide – Total		10 U	10 U	10 U	10 U	10 U	12.9

APPENDIX E

APPENDIX E

SELECTED REFERENCES

ALMOR, 1984.

COUNTY-56

ETE SANITATION

RTK#GX9C0501

GENERATOR FORM PART - I

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF SOLID AND HAZARDOUS WASTE

50 WOLF ROAD
ALBANY, NEW YORK 12233

HAZARDOUS WASTE DISPOSAL QUESTIONNAIRE

PLEASE COMPLETE AN ... SING UNIT, ROOM 525

ICS #: 0100503

COMPANY NAME: ALMOR CORPORATION **

CODE ID NUMBER: 0100503

COMPANY MAILING ADDRESS: PO BOX 270, WARSAW, NY 14569

TE... ZIP CODE

PLANT NAME (if different)

TELEPHONE: 716-786-22

PLANT ADDRESS (if different) STREET | CITY | STATE | ZIP CODE

PRINCIPAL BUSINESS OF PLANT: Makes Cabinets and Shelving for Supermarkets

PLEASE ANSWER THE FOLLOWING QUESTIONS:

CHECK ONE

1. SINCE JANUARY 1, 1952 THRU DECEMBER 31, 1981, HAVE YOU OR ANY PREVIOUS OWNERS/OPERATORS OF THIS FACILITY GENERATED ANY HAZARDOUS WASTE (SEE INSTRUCTIONS) AT YOUR PRESENT FACILITY, PLANT, PROPERTY, ETC?

☒ YES ☐ NO

IF THE ANSWER IS YES COMPLETE QUESTIONS 1, 2, 3, 4 AND GENERATOR FORM PART - II
IF THE ANSWER IS NO COMPLETE QUESTIONS 1 AND 4 AND RETURN THIS FORM

2. HAS THE FACILITY AT THIS LOCATION CHANGED ITS NAME OR IDENTIFICATION BECAUSE THERE WAS A CHANGE IN OWNERSHIP, CORPORATE NAME OR OPERATOR NAME, ETC. IF YES LIST THE NAMES BY WHICH THIS FACILITY HAS BEEN IDENTIFIED SINCE JANUARY 1, 1952 TO THE PRESENT.

☒ YES ☐ NO

NAME, ADDRESSES, AND TELEPHONE NUMBERS	DATES
Warsaw Elevator Co. to Watson Elevator Co.	1952
to Turnbull Elev. Co. to Dover Elev. Co.	1967
Almor Corp. 220 South Main St.	1967
Warsaw, N.Y. 716-786-2225	
	1982

3. DESCRIBE THE DOCUMENTS FROM WHICH DATA THAT IS INCLUDED ON PART-II WAS OBTAINED (SEE INSTRUCTIONS).

DOCUMENT DESCRIPTION	DATES
Almor Corporation shipping papers	1980 to 1982

4. I HEREBY CERTIFY THAT TO THE BEST OF MY KNOWLEDGE AND BELIEF THAT INFORMATION SUPPLIED IS TRUE AND COMPLETE. FALSE STATEMENTS SUBMITTED ON THIS DOCUMENT ARE PUNISHABLE PURSUANT TO SECTION 210.45 OF THE PENAL LAW.

Cassius D. Greene, Jr. — Supv. — 9-10-84
NAME OF OWNER/OPERATOR, PARTNER OFFICER OR AUTHORIZED REPRESENTATIVE — TITLE — DATE

Cassius D. Greene Jr. (signature) — 716-786-2225
SIGNATURE — BUSINESS PHONE

NAME	ICS NUMBER - EPA ID NUMBER
Almor Corporation	0100503
ADDRESS	
220 South Main Street	
CITY	STATE / ZIP
Warsaw	N.Y. / 14569

ENTERED EDP DEC 0 4 1984

GENERATOR FORM

PART - II

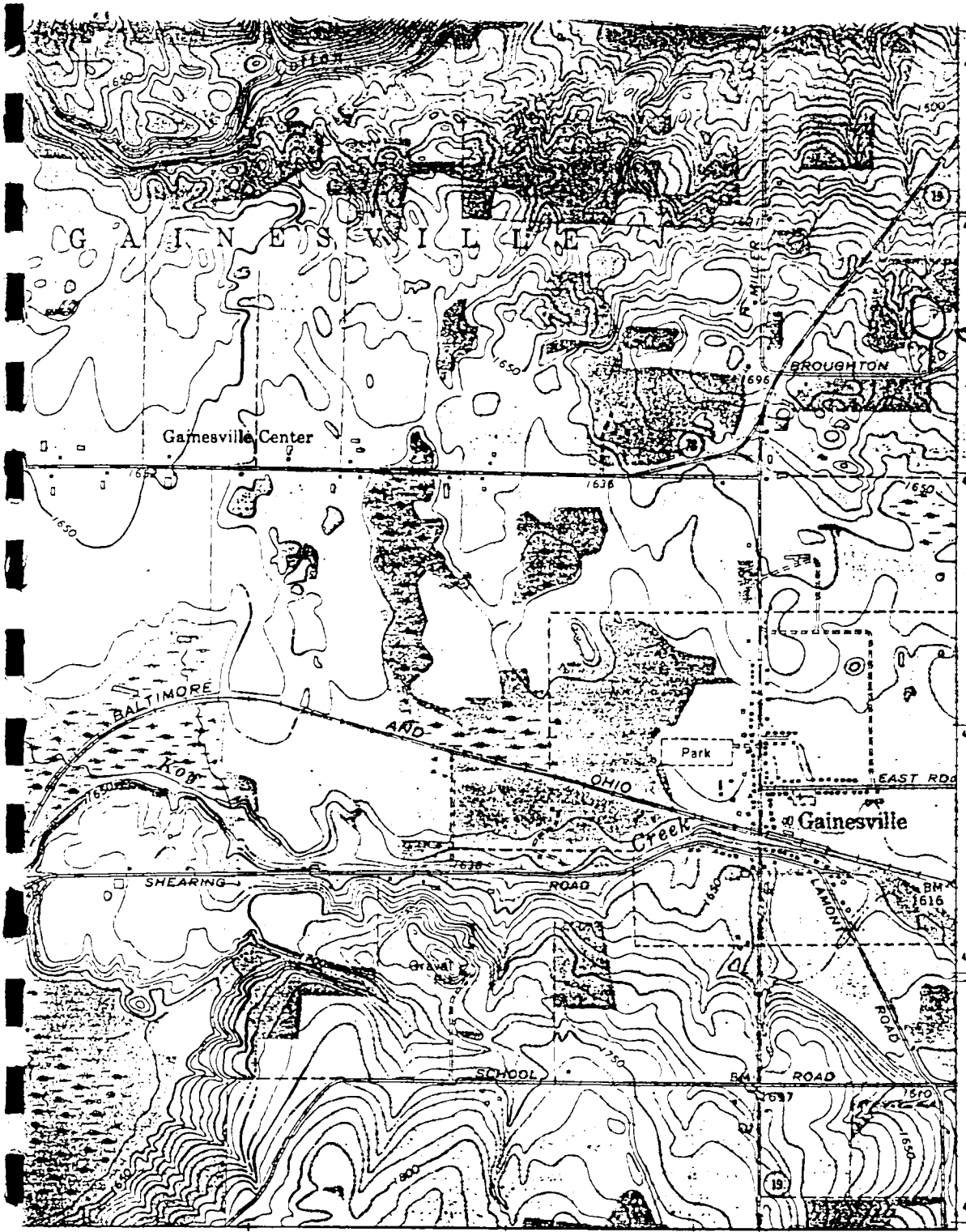
G

ENTERED EDP DEC 0 4 1984

DATE 9-10-84

1. HAZARDOUS WASTE DISPOSAL SITE (SEE INSTRUCTIONS)	2. DESCRIPTION OF HAZARDOUS WASTES DEPOSITED AT THIS LOCATION (SEE INSTRUCTIONS)	3. EPA WASTE CODE	4. WASTE DISPOSED OF QUANTITY OF WASTE (TONS)	FORM LIQUID	FORM SOLID	FORM DRUMS	5. WASTE DISPOSAL DATES	6. TRANSPORTER OF HAZARDOUS WASTE (SEE INSTRUCTIONS)
unknown	unknown	un-known	unknown				1952 to 1967.	unknown
Warsaw Village Landfill Warsaw N.Y. Wyoming Cty.	Lightly Leaded Paint Sludge (1)	D008	unknown ≤ 30 tons/yr		X	X	7/67 to 6/74	Almor Corp. NYA161 and NYA055
E.T.E. Sanitation & Landfill Inc. Gainesville, N.Y. Wyoming Cty.	Lightly Leaded Paint Sludge (2)	D008	unknown ≤ 30 tons/yr		X	X	6/74 to 4/79	Almor Corp.
CECOS Niagara Falls, N.Y.	Lead Free Paint Sludge (3)	D001 ~~N151~~	62.85 tons		X	X	6/80 to 4/82	Almor Corp.
	From 1952 to 1967, Warsaw and to Mr. Greene's wastes	Elevator company to knowledge did not produce			a		Cast Iron Foundry any hazardous	
	NOTE: Almor Corporation purchased the building from the Elevator Company							

Continued



WARSAW, N.Y.
N4237.5—W7807.5/7.5
1972
NS 5369 II NW—SERIES V721

H-14

ES, 1993.

ES ENGINEERING-SCIENCE COMPANIES

MEMORANDUM TO FILE

JOB NO. ETE

FILE DESIGNATION

DATE 10/8/93 TIME

PHONE CALL FROM Tom Adams (ES) PHONE NO.

PHONE CALL TO Kevin Glazer (NYSDEC - Region) PHONE NO. (716) 851-7220

CONFERENCE WITH

PLACE

SUBJECT Kevin was NYSDEC inspector during drum removal at ETE. Drums were removed from January 1991 to September 1991. Although 19 drums were suspected, only 11 were determined to contain hazardous waste by TCLP. Five drums were reportedly removed on 1/20/91, one was removed on 4/19/91, and 5 more were removed on 9/13/91. Small quantities of stained soils (associated with the drums) were removed and placed on plastic sheeting for on-site storage. Drums addressed by the drum removal effort included only drums lying on the surface. Partially buried drums were left in place to avoid potential ruptures. No sampling has been done on on-site drums.

SIGNED Thomas H. Adams

FROST, 1993.

FROST ASSOCIATES

P.O. Box 495, Essex, Connecticut 06426
(203) 767-1254 Fax (203) 767-7069

May 19, 1993

To: Tom Abrams
Engineering-Science
290 Elwood Davis Rd.
Liverpool, NY 13088

Fr: Bob Frost
Frost Associates
P.O. Box 495
Essex, Conn 06426

Tel: (203) 767-1254
Fax: (203) 767-7069

Sub: ETE Sanitation Site
Broughton Road
Gainsvile Township
Wyoming County

Site Longitude: 78.127083
Site Latitude : 42.649441

The CENTRACTS report below identifies the population, households, and private water wells of each Block Group that lies within, or partially within, the 4, 3, 2, 1, .5, and .25, mile "rings" of the latitude and longitude coordinates above. CENTRACTS may have up to ten radii of any length. 1000 block groups, and 15000 block group sides.

CENTRACTS uses the 1990 Block Group population and Block Group house count data found in the Census Bureau's 1990 STF-1A files. The sources of water supply data are from the Bureau's 1990 STF-3A files. The boundary line coordinates of the Block Groups were extracted from the Census Bureau's 1990 TIGER/Line Files.

CENTRACTS reports are created with programs written by Frost Associates, P.O. Box 495, Essex, Conn. The code was written using Microsoft's Quick-Basic Ver. 4.5.

Latitude and Longitude coordinates identifying a site are entered in degrees and decimal degrees. One or more county files holding Block Group boundary lines are selected for use by CENTRACTS by determining whether the site coordinates fall within the minimum and maximum Lat\Lon coordinates of each county in the state.

Each Block Group line segment has Lat\Lon coordinates representing the "From" and "To" ends of that line. All coordinates from the selected county files are read and converted from degrees, decimal degrees to X\Y miles from the site location. Each line segment is then examined whether it lies within or partially within the maximum ring from the site.

The unique Block Group ID numbers of each line segment that lie within the maximum ring are retained. All Block Group boundary lines matching the Block Group numbers are then extracted from the respective county files to obtain all sides of the in cluded Block Groups. Boundary records are then sorted in adjacent side order to determine the shape and area of each Block Group polygon.

A method to solve for the area of a polygon is to take one-half the sum of the pro ducts obtained by multiplying each X-coordinate by the difference between the adja

cent Y-coordinates. For a polygon with coordinates at adjacent angles A, B, C, D, and E. The formula can be expressed:

Area = 1/2{Xa(Ye-Yb)+ Xb(Ya-Yb)+ Xc(Yb-Yd)+ Xd(Yc-Ye)+ Xe(Yd-Ya)}

For each ring, the selected Block Groups will be inside, outside, or intersected by the ring. When a polygon is intersected, the partial Block Group area within that ring is calculated using the method described below.

When a ring intersects a Block Group, the intersect points are solved and plotted at the points where the ring enters and exits the shape. The chord line, a line within the circle connecting the intersect points is determined. This chord line is used to calculate the segment area, the half moon shape between the chord line and the ring, and the sub-polygon created by the chord line and the Block Group boundaries that lie outside the ring.

The segment area is subtracted from the sub-polygon area to determine the area of the sub-polygon outside the ring. The area outside the ring is then subtracted from the area of the entire polygon to arrive at the inside area. This inside area is then divided by the tract's total area to determine the percentage of area within the ring. This process is repeated for each block group that is intersected by one of the rings. The total area, partial area, and percentage of partial area of those block groups within, or partially within a ring, are held in memory for the report.

On occasion, the algorithm described above is unable to determine the area of the partial area. Within the report program is a "Paint" routine which allows an enclosed shape to be highlighted. Another routine calculates the percentage of highlighted screen pixels to the pixels within the polygon. A manual entry is allowed. Both the "paint" method and manual entry method over ride the calculated method.

CENTRACTS lists, starting on page 4, all Block Groups in State, County, Census Tract, and Block Group ID order that lie within, or partially within, the maximum ring. Each Block Group is identified by a City or Town name and by the Block Group's State, County, Tract and Block Group ID number. Following is the Block Group's 1990 populu tion and house count extracted from the Census Bureau's 1990 STF-1A files.

The next four columns display water source data from the 1990 STF-3A files. The first column is "Units with Public system or private company source of water", followed by "Units with individual well, Drilled, source of water"; "Units with individual well, Dug, source of water" and "Units with Other source of water".

For each ring, CENTRACTS then shows the Block Groups that are within that ring, the Block Group's total area in square miles, the partial area of the Block Group within that ring, and the partial percentage within the ring. The areas of the included Block Group and the partial areas are then totaled.

The last section tallies the demographic data within each ring. The percentage of area for each Block Group is multiplied times the census data for that Block Group and totaled for all Block Group's within the ring. Ring totals are then determined by subtracting the three mile data from the four mile, the two mile from the three mile, one from the two, etc... Population on private wells is calculated using the formula: ((Drilled + Dug Wells) / Households) * Population

ETE Sanitation Site
Broughton Road
Gainesville, NY
(Gainesville Township, Wyoming County)

No.	City	Block Group ID	Blk Grp	People	House Holds	Public Water	Drilled Wells	Dug Wells	Other
1	Warsaw	36121 9905	1	844	306	112	130	63	0
2	Warsaw	36121 9905	5	651	271	84	150	22	23
3	Castile	36121 9907	1	1286	492	320	141	26	16
4	Castile	36121 9907	3	426	441	141	267	17	17
5	Castile	36121 9907	5	799	303	287	12	2	2
6	Gainesville	36121 9908	1	835	338	313	11	4	5
7	Gainesville	36121 9908	2	692	257	62	177	12	12
8	Gainesville	36121 9908	3	794	338	13	258	29	31
9	Gainesville	36121 9908	4	761	276	0	217	34	24
10	Genesee Falls	36121 9911	1	839	308	13	220	41	30
11	Genesee Falls	36121 9911	2	1001	404	158	193	33	26
	Totals:			8928	3734	1503	1776	283	186

ETE Sanitation Site
Broughton Road
Gainesville, NY
(Gainesville Township, Wyoming County)

City	Census Tract ID		Tract People	House Count	Public Water	Drilled Wells	Dug Wells	Other Wells
Castile	36121 9907	1	1286	492	320	141	26	16
Castile	36121 9907	3	426	441	141	267	17	17
Castile	36121 9907	5	799	303	287	12	2	2
	Sub Totals:		2511	1236	748	420	45	35
Gainesville	36121 9908	2	692	257	62	177	12	12
Gainesville	36121 9908	1	835	338	313	11	4	5
Gainesville	36121 9908	3	794	338	13	258	29	31
Gainesville	36121 9908	4	761	276	0	217	34	24
	Sub Totals:		3082	1209	388	663	79	72
Genesee Falls	36121 9911	2	1001	404	158	193	33	26
Genesee Falls	36121 9911	1	839	308	13	220	41	30
	Sub Totals:		1840	712	171	413	74	56
Warsaw	36121 9905	5	651	271	84	150	22	23
Warsaw	36121 9905	1	844	306	112	130	63	0
	Sub Totals:		1495	577	196	280	85	23

ETE Sanitation Site
Broughton Road
Gainesville, NY
(Gainesville Township, Wyoming County)

For Radius of 4 Mi., Circle Area = 50.265482

No.	City	Block Group ID	Total Area	Partial Area	% Within Radius
1	Warsaw	36121 99051	16.345186	1.394699	8.53
2	Warsaw	36121 99055	14.936536	1.316603	8.81
3	Castile	36121 99071	26.654385	1.829183	6.86
4	Castile	36121 99073	6.345266	1.229298	19.37
5	Castile	36121 99075	3.633328	2.419538	66.59
6	Gainesville	36121 99081	1.767671	1.767671	100.00
7	Gainesville	36121 99082	17.225489	17.116001	99.36
8	Gainesville	36121 99083	35.947773	2.444140	6.80
9	Genesee Falls	36121 99112	35.255230	1.926910	5.47
10	Genesee Falls	36121 99111	28.216600	2.704288	9.58
11	Gainesville	36121 99084	16.583281	16.117151	97.19
	Totals:		202.910751	50.265480	

For Radius of 3 Mi., Circle Area = 28.274334

No.	City	Block Group ID	Total Area	Partial Area	% Within Radius
3	Castile	36121 99071	26.654385	0.277876	1.04
4	Castile	36121 99073	6.345266	0.206907	3.26
5	Castile	36121 99075	3.633328	0.248131	6.83
6	Gainesville	36121 99081	1.767671	1.767671	100.00
7	Gainesville	36121 99082	17.225489	16.381350	95.10
9	Genesee Falls	36121 99112	35.255230	0.068713	0.19
10	Genesee Falls	36121 99111	28.216600	0.191084	0.68
11	Gainesville	36121 99084	16.583281	9.132603	55.07
	Totals:		135.681244	28.274334	

For Radius of 2 Mi., Circle Area = 12.566371

No.	City	Block Group ID	Total Area	Partial Area	% Within Radius
6	Gainesville	36121 99081	1.767671	0.449605	25.43
7	Gainesville	36121 99082	17.225489	5.725261	33.24
11	Gainesville	36121 99084	16.583281	6.391504	38.54
	Totals:		35.576439	12.566370	

ETE Sanitation Site
Broughton Road
Gainesville, NY
(Gainesville Township, Wyoming County)

For Radius of 1 Mi., Circle Area = 3.141593

No.	City	Block Group ID	Total Area	Partial Area	% Within Radius
7	Gainesville	36121 99082	17.225489	1.138665	6.61
11	Gainesville	36121 99084	16.583281	2.002927	12.08
	Totals:		33.808769	3.141593	

For Radius of .5 Mi., Circle Area = 0.785398

No.	City	Block Group ID	Total Area	Partial Area	% Within Radius
7	Gainesville	36121 99082	17.225489	0.001018	0.01
11	Gainesville	36121 99084	16.583281	0.784380	4.73
	Totals:		33.808769	0.785398	

For Radius of .25 Mi., Circle Area = 0.196350

No.	City	Block Group ID	Total Area	Partial Area	% Within Radius
11	Gainesville	36121 99084	16.583281	0.196350	1.18
	Totals:		16.583281	0.196350	

ETE Sanitation Site
Broughton Road
Gainesville, NY
(Gainesville Township, Wyoming County)

---- Within Ring: .5 Mile(s) and .25 Mile(s) ----

Population:	27.03
Households:	9.80
Drilled Wells:	7.71
Dug Wells:	1.21
Other Water Sources:	0.85

** Population On Private Wells: 24.57

---- Within Ring: .25 Mile(s) and 0 Mile(s) ----

Population:	9.01
Households:	3.27
Drilled Wells:	2.57
Dug Wells:	0.40
Other Water Sources:	0.28

** Population On Private Wells: 8.19

** Total Population On Private Wells: 1538.40

ETE Sanitation Site
Broughton Road
Gainesville, NY
(Gainesville Township, Wyoming County)

========== Site Data ==========

Population:	3283.58
Households:	1307.16
Drilled Wells:	540.66
Dug Wells:	70.40
Other Water Sources:	54.40

========== Partial (RING) data ==========

---- Within Ring: 4 Mile(s) and 3 Mile(s) ----

Population:	1281.90
Households:	529.69
Drilled Wells:	228.97
Dug Wells:	34.96
Other Water Sources:	23.66

** Population On Private Wells: 638.73

---- Within Ring: 3 Mile(s) and 2 Mile(s) ----

Population:	1265.99
Households:	499.71
Drilled Wells:	166.43
Dug Wells:	17.33
Other Water Sources:	16.23

** Population On Private Wells: 465.54

---- Within Ring: 2 Mile(s) and 1 Mile(s) ----

Population:	598.03
Households:	227.44
Drilled Wells:	107.35
Dug Wells:	13.21
Other Water Sources:	10.82

** Population On Private Wells: 317.01

---- Within Ring: 1 Mile(s) and .5 Mile(s) ----

Population:	101.62
Households:	37.25
Drilled Wells:	27.64
Dug Wells:	3.29
Other Water Sources:	2.56

** Population On Private Wells: 84.36

LOZIER, 1991.

LTE Sanitation 761005 10

KNG

Post-it™ brand fax transmittal memo 7671 | # of pages ▸ 25

To TOM ABRAMS	From K. Glaser
Co. ENG. SCI.	Co. NYSDEC
Dept.	Phone # 851 7220
Fax # 315 451 9570	Fax # [redacted]

I.C.E

Dennis

NEW YORK STATE
APPROVED
ENVIRONMENTAL LABORATORY

CLIENT: NEW YORK STATE DEC #9
600 DELAWARE STREET
BUFFALO, NEW YORK 14202

ATTN : KEVIN GLASER

DATE REC'D : 07/20/90
LABORATORY NO. : 90072614
REPORT DATE : 07/27/90

File # 9-014

SAMPLE INFORMATION

SAMPLE DATE	: 07/20/90	LOCATION	: [redacted]
SAMPLE TIME	: 10:00 AM	TYPE OF SAMPLE	: SOLIDS
NUMBER OF SAMPLES	: 13	SAMPLER	: MARCOR GROUP

LABORATORY REPORT

PARAMETER	#1	#2	#3	#4	#5	#6	UNITS
FLASHPOINT	>150	>150	78.5	>150	129.7	>150	Degrees F

Drum Sample

NYSDOH LAB ID # 10390

Allan A. Coffin Jr.
LABORATORY DIRECTOR

LOZIER LABORATORIES, INC.
909 CULVER ROAD
ROCHESTER, NEW YORK 14609
716-654-6350

NEW YORK STATE
APPROVED
ENVIRONMENTAL LABORATORY

ETE SANITATION
961005

CLIENT:	NEW YORK STATE DEC #9	DATE REC'D	: 04/16/90
	600 DELAWARE AVENUE	LABORATORY NO.	: 90041221
	BUFFALO, NY 14202	REPORT DATE	: 05/10/90
	ATTN: KEVIN GLASER	RE : FILE # 9-014	

SAMPLE INFORMATION

SAMPLE DATE	: 04/09/90	LOCATION	:ETE SANITATION
SAMPLE TIME	: (ALL DAY)	TYPE OF SAMPLE	:LIQUID
NUMBER OF SAMPLES	: 6	SAMPLER	:CLIENT

LABORATORY REPORT

PARAMETER	DRUM #7	DRUM #9	DRUM #10	DRUM #11	LIMITS	UNITS
EPTOX METALS	SEE ATTACHED					
PCB	SEE ATTACHED					
40° FLASHPOINT	(74.5)	(68.4)	>150	>150	140	Degrees F
CORROSIVITY	SEE ATTACHED					
REACTIVITY	SEE ATTACHED					
PESTICIDES	SEE ATTACHED					
HERBICIDES	SEE ATTACHED					

NYSDOH LAB ID # 10390

LABORATORY DIRECTOR

LOZIER LABORATORIES, INC.
909 CULVER ROAD
ROCHESTER, NEW YORK 14609
716-654-6350

NEW YORK STATE
APPROVED
ENVIRONMENTAL LABORATORY

NYS DEC #9

PAGE 2

LABORATORY REPORT

PARAMETER	DRUM #12	ETE 4/9/90	LIMITS	UNITS	METHOD #
EPTOX METALS	SEE ATTACHED				
PCB	SEE ATTACHED				
FLASHPOINT	>150	84.8	140	Degrees F	SW846 1010
CORROSIVITY	SEE ATTACHED				
REACTIVITY	SEE ATTACHED				
PESTICIDES	SEE ATTACHED				
HERBICIDES	SEE ATTACHED				

NYSDOH LAB ID # 10390

LABORATORY DIRECTOR

LOZIER LABORATORIES, INC.
909 CULVER ROAD
ROCHESTER, NEW YORK 14609
716-654-6350

NEW YORK STATE
APPROVED
ENVIRONMENTAL LABORATORY

CLIENT: NEW YORK STATE DEC #9
PAGE 3

DATE REC'D :04/16/90
LABORATORY NO. :90041221
REPORT DATE :05/10/90

SAMPLE INFORMATION

SAMPLE DATE :	04/09/90	LOCATION	:ETE SANITATION
SAMPLE TIME :	(ALL DAY)	TYPE OF SAMPLE	:LIQUID
NUMBER OF SAMPLES :	6	SAMPLER	:CLIENT

LABORATORY REPORT

PARAMETER	DRUM #7	DRUM #9	DRUM #10	DRUM #1	UNITS ppm
PCB 1221	<1.0	<1.0	<1.0	<1.0	mg/kg
PCB 1232	<1.0	<1.0	<1.0	<1.0	mg/kg
PCB 1016	<1.0	<1.0	<1.0	<1.0	mg/kg
PCB 1242	<1.0	<1.0	<1.0	<1.0	mg/kg
PCB 1248	<1.0	<1.0	<1.0	<1.0	mg/kg
PCB 1254	<1.0	<1.0	<1.0	<1.0	mg/kg
PCB 1260	<1.0	<1.0	<1.0	<1.0	mg/kg
PCB 1262	<1.0	<1.0	<1.0	<1.0	mg/kg
PCB 1268	<1.0	<1.0	<1.0	<1.0	mg/kg
TOTAL PCB'S	<1.0	<1.0	<1.0	<1.0	mg/kg

METHOD : EPA 600/4-81-045

NYSDOH LAB ID # 10390

LABORATORY DIRECTOR

LOZIER LABORATORIES, INC.
909 CULVER ROAD
ROCHESTER, NEW YORK 14609
716-654-6350

NEW YORK STATE
APPROVED
ENVIRONMENTAL LABORATORY

CLIENT: NEW YORK STATE DEC #9
PAGE 4

DATE REC'D :04/16/90
LABORATORY NO. :90041221
REPORT DATE :05/10/90

SAMPLE INFORMATION

SAMPLE DATE :	04/09/90	LOCATION	:ETE SANITATION
SAMPLE TIME :	(ALL DAY)	TYPE OF SAMPLE	:LIQUID
NUMBER OF SAMPLES :	6	SAMPLER	:CLIENT

LABORATORY REPORT

PARAMETER	DRUM #12	ETE 4/9/90	UNITS
PCB 1221	<1.0	<1.0	mg/kg
PCB 1232	<1.0	<1.0	mg/kg
PCB 1016	<1.0	<1.0	mg/kg
PCB 1242	<1.0	<1.0	mg/kg
PCB 1248	<1.0	<1.0	mg/kg
PCB 1254	<1.0	<1.0	mg/kg
PCB 1260	<1.0	<1.0	mg/kg
PCB 1262	<1.0	<1.0	mg/kg
PCB 1268	<1.0	<1.0	mg/kg
TOTAL PCB'S	<1.0	<1.0	mg/kg

METHOD : EPA 600/4-81-045

NYSDOH LAB ID # 10390

LABORATORY DIRECTOR

LOZIER LABORATORIES, INC.
909 CULVER ROAD
ROCHESTER, NEW YORK 14609
716-654-6350

NEW YORK STATE
APPROVED
ENVIRONMENTAL LABORATORY

CLIENT: NEW YORK STATE DEC #9
PAGE 5

DATE REC'D :04/16/90
LABORATORY NO. :90041221
REPORT DATE :05/10/90

SAMPLE INFORMATION

SAMPLE DATE :	04/09/90	LOCATION	:ETE SANITATION
SAMPLE TIME :	(ALL DAY)	TYPE OF SAMPLE	:SOLID
NUMBER OF SAMPLES :	14	SAMPLER	:CLIENT

LABORATORY REPORT

PARAMETER	DRUM #1	DRUM #2	DRUM #3	DRUM #4	UNITS	LIMITS
					ppm	
EP TOX METALS:						
ARSENIC	<0.100	<0.100	<0.100	<0.100	mg/l	5.0
BARIUM	<10.0	<10.0	<10.0	<10.0	mg/l	100.0
CADMIUM	<0.05	<0.05	<0.05	<0.05	mg/l	1.0
CHROMIUM	0.11	0.17	<0.050	0.19	mg/l	5.0
LEAD	0.49	0.28	<0.20	10.2	mg/l	5.0
MERCURY	<0.050	<0.050	<0.050	<0.050	mg/l	0.2
SELENIUM	<0.100	<0.100	<0.100	<0.100	mg/l	1.0
SILVER	<0.05	<0.05	<0.05	<0.05	mg/l	5.0

All analysis was performed by methods outlined in EPA SW846 "Test Methods for Evaluating Solid Waste:, 3rd Ed.

NYSDOH LAB # 10390

LABORATORY DIRECTOR

LOZIER LABORATORIES, INC.
909 CULVER ROAD
ROCHESTER, NEW YORK 14609
716-654-6350

NEW YORK STATE
APPROVED
ENVIRONMENTAL LABORATORY

CLIENT: NEW YORK STATE DEC #9
PAGE 6

DATE REC'D :04/16/90
LABORATORY NO. :90041221
REPORT DATE :05/10/90

SAMPLE INFORMATION

SAMPLE DATE :	04/09/90	LOCATION	:ETE SANITATION
SAMPLE TIME :	(ALL DAY)	TYPE OF SAMPLE	:SOLID
NUMBER OF SAMPLES :	14	SAMPLER	:CLIENT

LABORATORY REPORT

PARAMETER	DRUM #5	DRUM #6	DRUM #8	DRUM #13	UNITS	LIMITS
EP TOX METALS:						
ARSENIC	<0.100	<0.100	<0.100	<0.100	mg/l	5.0
BARIUM	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
CADMIUM	<0.05	<0.05	<0.05	<0.05	mg/l	1.0
CHROMIUM	<0.05	0.08	<0.05	<0.050	mg/l	5.0
LEAD	<0.20	<0.20	1.89	<0.20	mg/l	5.0
MERCURY	<0.050	<0.050	<0.050	<0.050	mg/l	0.2
SELENIUM	<0.100	<0.100	<0.100	<0.100	mg/l	1.0
SILVER	<0.05	<0.05	<0.05	<0.05	mg/l	5.0

All analysis was performed by methods outlined in EPA SW846 "Test Methods for Evaluating Solid Waste", 3rd Ed.

NYSDOH LAB # 10390

LABORATORY DIRECTOR

LOZIER LABORATORIES, INC.
909 CULVER ROAD
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NEW YORK STATE
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CLIENT: NEW YORK STATE DEC #9
PAGE 7

DATE REC'D :04/16/90
LABORATORY NO. :90041221
REPORT DATE :05/10/90

SAMPLE INFORMATION

SAMPLE DATE :	04/09/90	LOCATION	:ETE SANITATION
SAMPLE TIME :	(ALL DAY)	TYPE OF SAMPLE	:SOLID
NUMBER OF SAMPLES :	14	SAMPLER	:CLIENT

LABORATORY REPORT

PARAMETER	DRUM #14	DRUM #15	DRUM #16	DRUM #17	UNITS	LIMITS
EP TOX METALS:						
ARSENIC	<0.100	<0.100	<0.100	<0.100	mg/l	5.0
BARIUM	<10.0	<10.0	<10.0	<10.0	mg/l	100.0
CADMIUM	<0.050	<0.050	<0.050	<0.050	mg/l	1.0
CHROMIUM	<0.500	<0.050	0.070	<0.050	mg/l	5.0
LEAD	<0.20	<0.20	0.60	0.52	mg/l	5.0
MERCURY	<0.050	<0.050	<0.050	<0.050	mg/l	0.2
SELENIUM	<0.100	<0.100	<0.100	<0.100	mg/l	1.0
SILVER	<0.05	<0.05	<0.05	<0.05	mg/l	5.0

All analysis was performed by methods outlined in EPA SW846 "Test Methods for Evaluating Solid Waste", 3rd Ed.

NYSDOH LAB # 10390

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CLIENT: NEW YORK STATE DEC #9
PAGE 8

DATE REC'D :04/16/90
LABORATORY NO. :90041221
REPORT DATE :05/10/90

SAMPLE INFORMATION

SAMPLE DATE :	04/09/90	LOCATION	:ETE SANITATION
SAMPLE TIME :	(ALL DAY)	TYPE OF SAMPLE	:SOLID
NUMBER OF SAMPLES :	14	SAMPLER	:CLIENT

LABORATORY REPORT

PARAMETER	DRUM #18	DRUM #19	METHOD #	UNITS	LIMITS
EP TOX METALS:					
ARSENIC	<0.100	<0.100	7060	mg/l	5.0
BARIUM	<10.0	<10.0	7080	mg/l	100.0
CADMIUM	<0.050	<0.050	7130	mg/l	1.0
CHROMIUM	<0.050	<0.500	7190	mg/l	5.0
LEAD	2.56	<0.20	7420	mg/l	5.0
MERCURY	<0.050	<0.050	7471	mg/l	0.2
SELENIUM	<0.100	<0.100	7740	mg/l	1.0
SILVER	<0.05	<0.050	7760	mg/l	5.0

All analysis was performed by methods outlined in EPA SW846 "Test Methods for Evaluating Solid Waste", 3rd

NYSDOH LAB.# 10390

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LABORATORY REPORT

PARAMETER	DRUM #1	DRUM #2	DRUM #3	DRUM #4	DRUM #5	UNITS
CORROSIVITY	7.00	7.00	6.00	7.00	7.00	S.U.
REACTIVITY : *						
CYANIDE	<10	<10	<10	<10	<10	mg/kg
SULFIDE	<15	<10	<10	<10	<10	mg/kg
PESTICIDES :						
LINDANE	<0.20	<0.10	<0.10	<0.10	<0.20	ug/l
ENDRIN	<0.20	<0.10	<0.10	<0.10	<0.20	ug/l
METHOXYCHLOR	<2.0	<1.0	<1.0	<1.0	<2.0	ug/l
TOXAPHENE	<10	<5.0	<5.0	<5.0	<10	ug/l
HERBICIDES :						
2,4-D	<0.06	<0.03	<0.03	<0.03	<0.06	ug/l
2,4,5-TP (SILVEX)	<0.06	<0.03	<0.03	<0.03	<0.06	ug/l

* Performed by Method SW846, Sect. 8.3.

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LABORATORY REPORT

PARAMETER	DRUM #6	DRUM #8	DRUM #13	DRUM #14	DRUM #15	UNITS
CORROSIVITY	7.00	7.00	7.00	7.00	5.50	S.U.
REACTIVITY : *						
CYANIDE	<10	<10	<10	<10	<10	mg/kg
SULFIDE	<10	<10	<10	<10	<10	mg/kg
PESTICIDES :						
LINDANE	<0.10	<0.10	<0.10	<0.10	<0.25	ug/l
ENDRIN	<0.10	<0.10	<0.10	<0.10	<0.25	ug/l
METHOXYCHLOR	<1.0	<1.0	<1.0	<1.0	<2.5	ug/l
TOXAPHENE	<5.0	<5.0	<5.0	<5.0	<13	ug/l
HERBICIDES :						
2,4-D	<0.04	<0.03	<0.04	<0.03	<0.08	ug/l
2,4,5-TP (SILVEX)	<0.04	<0.03	<0.04	<0.03	<0.08	ug/l

* Performed by Method SW846, Sect. 8.3.

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LABORATORY REPORT

PARAMETER	DRUM #16	DRUM #17	DRUM #18	DRUM #19	METHOD NUMBER	UNITS
CORROSIVITY	7.00	7.00	5.50	7.00		S.U.
REACTIVITY : *						
CYANIDE	<10	<10	<10	<10		mg/kg
SULFIDE	<10	<10	<15	<10		mg/kg
PESTICIDES :						
LINDANE	<0.10	<1.0	<0.20	<0.10	SW 846 3510/8080	ug/l
ENDRIN	<0.10	<1.0	<0.20	<0.10		ug/l
METHOXYCHLOR	<1.0	<10	<2.0	<1.0		ug/l
TOXAPHENE	<5.0	<50	<10	<5.0		ug/l
HERBICIDES :						
2,4-D	<0.03	<0.30	<0.06	<0.03	SW 846 3510/8150	ug/l
2,4,5-TP (SILVEX)	<0.03	<0.30	<0.06	<0.03		ug/l

* Performed by Method SW846, Sect. 8.3.

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CLIENT:	NEW YORK STATE DEC REG. #9	DATE REC'D	: 04/25/91
	600 DELAWARE AVENUE	LABORATORY NO	: 71041622
	BUFFALO, NEW YORK 14202	REPORT DATE	: 05/31/91
	ATTN : KEVIN GLAZER	RE : HAZMAT # 9-014	

SAMPLE INFORMATION

SAMPLE DATE	: 04/19/91	LOCATION	: ETE SANITATION
SAMPLE TIME	: 10:00 AM	TYPE OF SAMPLE	: SEE REPORT
NUMBER OF SAMPLES	: 6	SAMPLER	: CLIENT

TOXICITY CHARACTERISTIC LEACHING PROCEDURE

TCLP METALS	DRUM #10 OIL	DRUM #11 OIL	LIMITS mg/l	UNITS	METHOD NUMBER 1311
ARSENIC	<0.10	<0.10	5.0	mg/l	7060
BARIUM	<5.0	<5.0	100.0	mg/l	7030
CADMIUM	<0.05	0.95	1.0	mg/l	7130
CHROMIUM	<0.50	0.86	5.0	mg/l	7190
LEAD	1.65	1.99	5.0	mg/l	7420
MERCURY	<0.10	<0.10	0.20	mg/l	7471
SELENIUM	<0.10	<0.10	1.0	mg/l	7740
SILVER	<0.05	<0.05	5.0	mg/l	7760

* All analyses were performed by methods outlined in Federal Register rules and regulations Volume 55, No. 61, Part 261, Appendix II, March 29, 1990.

NYSDOH LAB ID # 10390

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CLIENT: NEW YORK STATE DEC REG. #9
PAGE 2

DATE RECD : 04/25/91
LABORATORY NO. : 71041623
REPORT DATE : 05/31/91

RE : HAZMAT # 9-014

SAMPLE INFORMATION

SAMPLE DATE	: 04/19/91	LOCATION	: ETE SANITATION
SAMPLE TIME	: 10:00 AM	TYPE OF SAMPLE	: SEE REPORT
NUMBER OF SAMPLES	: 6	SAMPLER	: CLIENT

TOXICITY CHARACTERISTIC LEACHING PROCEDURE

TCLP METALS	DRUM #12 OIL	DRUM #21 OIL	LIMITS mg/l	UNITS	METHOD NUMBER 1311
ARSENIC	<0.10	<0.10	5.0	mg/l	7060
BARIUM	<5.0	<5.0	100.0	mg/l	7030
CADMIUM	0.05	<0.05	1.0	mg/l	7130
CHROMIUM	<0.50	<0.50	5.0	mg/l	7190
LEAD	0.46	0.43	5.0	mg/l	7420
MERCURY	<0.10	<0.10	0.20	mg/l	7471
SELENIUM	<0.10	<0.10	1.0	mg/l	7740
SILVER	<0.05	<0.05	5.0	mg/l	7760

* All analyses were performed by methods outlined in Federal Register rules and regulations Volume 55, No. 61, Part 261, Appendix II, March 29, 1990.

NYSDOH LAB ID # 10390

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NYSDEC/ LAB # [illegible]

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TCLP / ORGANIC EXTRACTABLES

PARAMETER	DRUM #10 OIL	DRUM #11 OIL	LIMITS mg/l	UNITS	METHOD NUMBER 3510
PESTICIDES:					
CHLORDANE	<0.02	<0.02	0.03	mg/l	8080
ENDRIN	<0.002	<0.002	0.02	mg/l	8080
HEPTACHLOR	<0.002	<0.002	0.008	mg/l	8080
LINDANE	<0.002	<0.002	0.4	mg/l	8080
METHOXYCHLOR	<0.002	<0.002	10.0	mg/l	8080
TOXAPHENE	<0.02	<0.02	0.5	mg/l	8080
HERBICIDES:					
2,4-D	<0.20	<0.002	10.0	mg/l	8150
2,4,5-TP (SILVEX)	<0.20	<0.002	1.0	mg/l	8150

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NYSDEC/ LAB # 91041[illegible]

TCLP / ORGANIC EXTRACTABLES

PARAMETER	DRUM #12 OIL	DRUM #21 OIL	LIMITS mg/l	UNITS	METHOD NUMBER 3510
PESTICIDES:					
CHLORDANE	<0.02	<0.02	0.03	mg/l	8080
ENDRIN	<0.002	<0.002	0.02	mg/l	8080
HEPTACHLOR	<0.002	<0.002	0.008	mg/l	8080
LINDANE	<0.002	<0.002	0.4	mg/l	8080
METHOXYCHLOR	<0.002	<0.002	10.0	mg/l	8080
TOXAPHENE	<0.02	<0.02	0.5	mg/l	8080
HERBICIDES:					
2,4-D	<0.002	<0.002	10.0	mg/l	8150
2,4,5-TP (SILVEX)	<0.002	<0.002	1.0	mg/l	8150

NYSDOH LAB ID # 10390

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NYSDEC / LAB # 91041423

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TCLP / VOLATILE ORGANICS

PARAMETER	DRUM #10 OIL	DRUM #11 OIL	LIMITS mg/l	UNITS	METHOD NUMBER
VINYL CHLORIDE	<0.050	<0.050	0.20	mg/l	8010
1,1-DICHLORDETHENE	<0.050	<0.050	0.70	mg/l	8010
CHLOROFORM	<0.050	<0.050	6.0	mg/l	8010
1,2-DICHLORDETHANE	0.080	0.86 [redacted]	0.50	mg/l	8010
CARBON TETRACHLORIDE	<0.050	1.1 [redacted] *	0.50	mg/l	8010
TRICHLORDETHENE	3.1 [redacted] *	4.9 [redacted] *	0.50	mg/l	8010
TETRACHLORDETHENE	0.220	0.130	0.70	mg/l	8010
BENZENE	<0.050	<0.050	0.50	mg/l	8020
CHLOROBENZENE	<0.050	<0.050	100.	mg/l	8020
1,4-DICHLOROBENZENE	<0.050	<0.050	7.5	mg/l	8020
METHYL ETHYL KETONE	0.150	5.9	200.	mg/l	NYSDOH 310-25

* Exceeds regulatory limitation.

** All analyses were performed by methods outlined in Federal Register rules and regulations, Volume 55, No. 61 Part 261, Appendix II, of March 29, 1990.

Analysis performed by ELAP # 11030.

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TCLP / VOLATILE ORGANICS

PARAMETER	DRUM #12 OIL	DRUM #21 OIL	LIMITS mg/l	UNITS	METHOD NUMBER
VINYL CHLORIDE	<0.050	<0.050	0.20	mg/l	8010
1,1-DICHLOROETHENE	<0.050	<0.050	0.70	mg/l	8010
CHLOROFORM	0.360	<0.050	6.0	mg/l	8010
1,2-DICHLOROETHANE	10.0 *	<0.050	0.50	mg/l	8010
CARBON TETRACHLORIDE	<0.050	<0.050	0.50	mg/l	8010
TRICHLOROETHENE	12.0 *	<0.050	0.50	mg/l	8010
TETRACHLOROETHENE	0.320	<0.050	0.70	mg/l	8010
BENZENE	<0.050	<0.050	0.50	mg/l	8020
CHLOROBENZENE	<0.050	<0.050	100.	mg/l	8020
1,4-DICHLOROBENZENE	<0.050	<0.050	7.5	mg/l	8020
METHYL ETHYL KETONE	480 *	<1.0	200.	mg/l	NYSDOH 310-25

* Exceeds regulatory limitation.

** All analyses were performed by methods outlined in Federal Register rules and regulations, Volume 55, No. 61 Part 261, Appendix II, of March 29, 1990.

Analysis performed by ELAP # 11030.

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NYSDEC / LAB # 9104142J

TCLP / ORGANIC EXTRACTABLES

PARAMETER	DRUM #10 OIL	DRUM #11 OIL	LIMITS mg/l	UNITS	METHOD NUMBER 1310
BASE-NEUTRALS: *					
2,4-DINITROTOLUENE	<10.8	<55	0.13	mg/l	8270
HEXACHLOROBENZENE	<10.8	<55	0.13	mg/l	8270
HEXACHLORO-1,3-BUTADIENE	<10.8	<55	0.50	mg/l	8270
HEXACHLOROETHANE	<10.8	<55	3.0	mg/l	8270
NITROBENZENE	<10.8	<55	2.0	mg/l	8270
PYRIDINE	<10.8	<55	5.0	mg/l	8270
ACIDS:					
o-CRESOL	<10.8	<55	200	mg/l	8040
m-CRESOL p-CRESOL	<10.8	<55	200	mg/l	8040
PENTACHLOROPHENOL	<54	<275	100	mg/l	8040
2,4,5-TRICHLORO-PHENOL	<54	<275	400	mg/l	8040
2,4,6-TRICHLORO-PHENOL	<10.8	<55	2.0	mg/l	8040

* Analysis performed by ELAP # 11103

NOTE : Due to matrix interference, an elevated detection limit is being reported for these compounds.

NYSDOH LAB ID # 10390

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TCLP / ORGANIC EXTRACTABLES

PARAMETER	DRUM #12 OIL	DRUM #21 OIL **	LIMITS mg/l	UNITS	METHOD NUMBER 3510
BASE-NEUTRALS: *					
2,4-DINITROTOLUENE	<0.10	<1.0	0.13	mg/l	8270
HEXACHLOROBENZENE	<0.10	<1.0	0.13	mg/l	8270
HEXACHLORO-1,3-BUTADIENE	<0.10	<1.0	0.50	mg/l	8270
HEXACHLOROETHANE	<0.10	<1.0	3.0	mg/l	8270
NITROBENZENE	<0.10	<1.0	2.0	mg/l	8270
PYRIDINE	<0.10	<1.0	5.0	mg/l	8270
ACIDS:					
o-CRESOL	<0.10	<1.0	200	mg/l	8040
m-CRESOL p-CRESOL	<0.10	<1.0	200	mg/l	8040
PENTACHLOROPHENOL	<0.50	<5.0	100	mg/l	8040
2,4,5-TRICHLORO-PHENOL	<0.50	<5.0	400	mg/l	8040
2,4,6-TRICHLORO-PHENOL	<0.10	<1.0	2.0	mg/l	8040

* Analysis performed by ELAP # 11103 on sample Drum #21
Analysis performed by ELAP # 10224 on sample Drum #12.

** NOTE : Due to matrix interference, an elevated detection limit is being reported for these compounds, on sample Drum #21.

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TCLP / VOLATILE ORGANICS

PARAMETER	DRUM #15 SOLID	DRUM #17 SLUDGE	LIMITS mg/l	UNITS	METHOD NUMBER
VINYL CHLORIDE	<0.050	<0.050	0.20	mg/l	8010
1,1-DICHLOROETHENE	<0.050	<0.050	0.70	mg/l	8010
CHLOROFORM	<0.050	<0.050	6.0	mg/l	8010
1,2-DICHLOROETHANE	<0.050	<0.050	0.50	mg/l	8010
CARBON TETRACHLORIDE	<0.050	<0.050	0.50	mg/l	8010
TRICHLOROETHENE	<0.050	<0.050	0.50	mg/l	8010
TETRACHLOROETHENE	<0.050	<0.050	0.70	mg/l	8010
BENZENE	<0.050	<0.050	0.50	mg/l	8020
CHLOROBENZENE	<0.050	<0.050	100.	mg/l	8020
1,4-DICHLOROBENZENE	<0.050	<0.050	7.5	mg/l	8020
METHYL ETHYL KETONE	<1.0	<1.0	200.	mg/l	NYSDOH 310-25

* All analyses were performed by methods outlined in Federal Register rules and regulations, Volume 55, No. 61 Part 261, Appendix II, of March 29, 1990.

Analysis performed by ELAP # 11030.

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NYSDEC / LAB # 91041623

TCLP / ORGANIC EXTRACTABLES

PARAMETER	DRUM #15 SOLID	DRUM #17 SLUDGE	LIMITS mg/l	UNITS	METHOD NUMBER 3510
BASE-NEUTRALS: *					
2,4-DINITROTOLUENE	<0.10	<0.02	0.13	mg/l	8270
HEXACHLOROBENZENE	<0.10	<0.02	0.13	mg/l	8270
HEXACHLORO-1,3-BUTADIENE	<0.10	<0.02	0.50	mg/l	8270
HEXACHLOROETHANE	<0.10	<0.02	3.0	mg/l	8270
NITROBENZENE	<0.10	<0.02	2.0	mg/l	8270
PYRIDINE	<0.10	<0.02	5.0	mg/l	8270
ACIDS:					
o-CRESOL	<0.10	<0.02	200	mg/l	8040
m-CRESOL p-CRESOL	<0.10	<0.02	200	mg/l	8040
PENTACHLOROPHENOL	<0.50	<0.10	100	mg/l	8040
2,4,5-TRICHLORO-PHENOL	<0.50	<0.10	400	mg/l	8040
2,4,6-TRICHLORO-PHENOL	<0.10	<0.02	2.0	mg/l	8040

* Analysis performed by ELAP # 11103.

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NYSDEC / LAB # 910416[illegible]

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POLYCHLORINATED BIPHENYLS

PARAMETER	DRUM #11 OIL	DRUM #21 OIL	UNITS
PCB 1221	<10	<1.0	mg/kg
PCB 1232	<10	<1.0	mg/kg
PCB 1016	<10	<1.0	mg/kg
PCB 1242	<10	<1.0	mg/kg
PCB 1248	<10	<1.0	mg/kg
PCB 1254	<10	<1.0	mg/kg
PCB 1260	<10	<1.0	mg/kg
PCB 1262	<10	<1.0	mg/kg
PCB 1268	<10	<1.0	mg/kg
TOTAL PCB'S	<10	<1.0	mg/kg

Method : EPA 600/4-81-045.

NYSDOH LAB ID # 10390

LABORATORY DIRECTOR

NYSDEC, 1977.

15 (12/75)

file

New York State Department of Environmental Conservation

MEMORANDUM

Wyoming

TO: Frank Shattuck
FROM: Kevin Hintz
SUBJECT: ETE Landfill, Gainesville

DATE: December 20, 1977

I visited the Landfill in question on the following dates: December 7th, 13th, and 14th. My inspections revealed the following violations of Volume A, Title 6 of NYCRR, Chapter 4, Subchapter B, Part 360:

360.8 (a) (16) 1. Refuse was not confined to a reasonable area. Two separate piles of refuse are located in opposite corners of the Landfill. The northeast corner and the southwest corner. Only the pile in the southwest corner was reachable due to the presence of snow, and this had one lane plowed to it.

360.8 (b) (1) (vii) (c) 2. Refuse was not being covered daily. Upon my first visit, I discovered a pile of refuse 20' in diameter in the southwest corner and a 10' x 10' pile in the northeast corner. Portions of the piles were covered with snow indicating that the refuse had probable been there for 3 or 4 days as on the day of my visit it was not snowing. On my 2nd and 3rd visits, I found that more garbage had been dumped causing the pile of refuse to swell to approximately 35' x 200'. Also on my 2nd and 3rd visits I discovered that refuse had been spread and compacted but not covered in an area just west of small pile (in the northeast corner). Snow melt revealed this.

360.8 (b) (1) (vii) (d) 3. Refuse was protruding through the completed area in the northern portion of the Landfill. More cover is necessary.

360.8 (b) (1) (vii) (a) 4. Refuse remains in the piles as formed when the garbage trucks dump their loads. Some refuse has been spread and compacted, but most of it (approximately 90%) remains in piles.

360.8 (b) (1) viii) 5. In the completed areas where protruding refuse is not a problem, the ground surface is rough and uneven. Due to melting snow and rain, surface water is pooling throughout the site. Slopes at edges of Landfill appear steeper than we allow.

360.8 (a) (8) 6. Due to the uncovered garbage, many animals have been attracted. The snow is covered with tracks from these animals & birds. Dogs were present on my 2nd & 3rd inspections. Also the area was starting to become very odorous as the snow melted.

360.8 (a) (8) 7. Paper is being blown across the entire site and onto surrounding property.

360.8 (a) (3) 8. Leachate was discovered on the 2nd and 3rd inspection. A large pond to the rear (northern end) of the Landfill is collecting the leachate which is breaking out. The leachate is redish brown in color. This was not discovered on the 1st inspection due to the snow cover.

A form letter noting the violations was sent to Mrs. Edwards on December 13, 1977 following my 1st inspection of the site on December 7, 1977. A second letter noting the violation will be sent out on December 15, 1977.

All the violations described except the nesence of odor and animals, and the improper spreading and compaction of refuse, are the same violations cited in the Order on Consent issued in May of 1977.

KH:dd

NYSDEC, 1987A.

15 (12-75)

New York State Department of Environmental Conservation

MEMORANDUM

TO: Mr. John Tygert/Mr. Lawrence Clare
FROM: Mr. Kevin Glaser
SUBJECT: ETE Landfill

DATE: May 8, 1987

Upon inspecting this site, on the above date, I found approximately six drums in the southeast section which did or still do contain chlorinated solvents. One full unopened drum was labeled Chlorothene, a trade name for a chlorinated solvent degreaser. Other drums were too deteriorated to identify from labels, but visually could be identified to contain rain water, paint sludge film, and chlorinated solvents. Several drums around these were labeled to contain motor oil; all of the motor oil drums checked were empty. The small amount of vegetation near these drums showed signs of being chemically burned.

Also noted at the site was a leachate collection pond. It has a continuous flow in and out, and is a pale shade of orange noted both 5/7/87 and 3/27/87. This site has several leachate breakouts of which most drain to the leachate pond. Some of the leachate drains to a swamp area east and northeast of the site which flows north and combines with the leachate pond overflow. This flows north and west under Route 19 and enters a swamp on the north side of East Cotton Road. This swamp drains under East Cotton Road and into Cotton Creek, downstream from the Village of Warsaw drinking water intake.

The surface of the landfill is sparsely covered with stressed vegetation. There are areas with refuse still protruding and other areas where leachate has collected, evaporated leaving traces of salts on the surface.

Sampling of the leachate pond and leachate pond sludge was done in late March and results have not yet been received. Sampling of the drums to identify contents should be the next step and then further studies to determine the extent of contamination.

KG:jps

NYSDEC, 1987B.

ETE Sanitation

By Dennis Fassel.

SAMPLING AT ETE SANITATION - GAINESVILLE - 960801 (COUNCIL #)

DATE 9/2/87

PROJECT DESCRIPTION - SAMPLING OF DRUMS AND STAINED SOIL TO CONFIRM PRESENCE OF HAZARDOUS WASTE ON SITE. SITE WAS USED BY A SEPTIC HAULER, NOW BANKRUPT. MANY DRUMS EXIST ON-SITE, MOST ALL CORRODED AND LEAKING. ONE EARTH POND ON-SITE, ANOTHER EARTHEN CONTAMINATED POND MUCH SMALLER, ~~→~~ CLOSE BY.

OBJECTIVE - TO CONFIRM HAZARDOUS WASTE DISPOSAL ON-SITE.

SAMPLING - ARRIVED ON SITE AT 230 PM - SKY OVERCAST TEMP. 50-60° F. THIS SITE WAS DISCOVERED THROUGH THE COMMUNITY RIGHT TO KNOW SURVEY. IT IS IN A RURAL AGRICULTURAL AREA. MANY DRUMS ARE CORRODED, OPEN, AND LEAKING - A PUNGENT ODOR IS NOTICED IN THE AREA OF THE DRUMS, MANY CONTAIN A BLACK-RED OILY SUBSTANCE, WHICH IS HEAVIER THAN WATER. IT APPEARS TO BE CUTTING-TYPE OIL WASTE.

AN ORANGE POND EXISTS ON SITE. THIS POND APPEARS TO BE A RECEPTOR OF EARTHEN ON-SITE. NUMEROUS PIECES OF RUSTED EQUIPMENT AND DEBRIS ARE ALSO EQUIPMENT ON-SITE. THE EARTH POND ON-SITE HAS SOME STAINING ALONG ITS SHORE. ONE EMPTY DRUM WAS NOTICED IN IT.

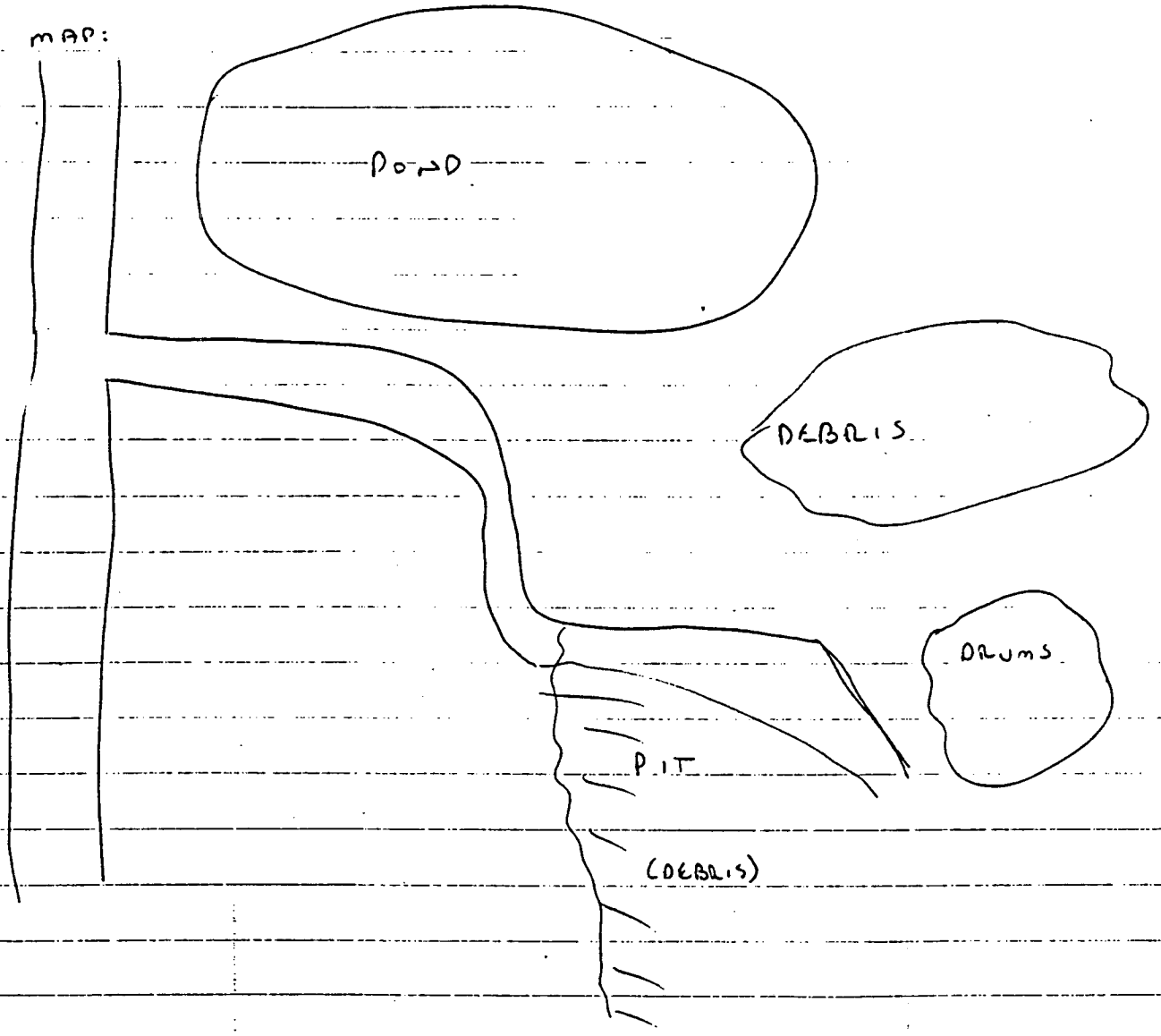
SAMPLE - 960801 - 02 - SAMPLE TAKEN FROM A DRUM ON-SITE

THICK, BLACK-RED OILY SUBSTANCE, WHICH EXISTED UNDER WATER

[illegible] THIS POND ALSO A SMALL POND WAS STAINED

SAMPLE 960801-03 - SOIL AROUND TIRE PILE OF LEAKING DRUMS, SOIL WAS BLACK-STAINED, OILY, AND GAVE OFF AN ODOR OF CUTTING OIL. 0-4" DEEP.

MAP:



Drum 4605
Soil 4606
Water 4607
Water 4610 – VOA's

NYSDEC - DSHW - CHAIN OF CUSTODY RECORD

ETE Sanitation
Sampling 1987
From Rick Tuers 9/26/90

Site Name	Site Location	Sample Prefix #
[illegible]	(1) [illegible] (2) Tifft St	46:80,

Samples Released By (Signature)	Date/Time	Type	VOA	BNA	ORG-Soils	Metals-Soils	Metals-Water
M Burnett	8/28/87 1:30 AM	Volume	40 ml	1 liter	½ pt	½ pt	500 ml
		Material	Glass	Glass	Glass	Glass	Plastic
Samples Received by (Signature)	Date/Time	Lot #	01	4B1	–	–	M3
[illegible]	11:30 AM 8/28/87	Total	3	3	3	3	2

Relinquished by (Sig)	Date/Time	Received Sig.	Date/Time	Relinquished by	Date/Time	Received by	Date/Time

Samplers (Signature)

Sample #	Date	Time	Comp	Grab	Sample Location	Matrix	Total # of Bottles	40 ml VOA	1 liter BNA	500 ml metals water	½ pt Jar soil-metals	½ pt Jar soil-ORG		Mobile Lab Accession #
[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]	1				1	1	Tifft St	A987246-08
[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]	2				1	1	ETE Sanit.	A987246-06

Relinquished by	Date/Time	Received by	Date/Time	Relinquished by	Date/Time	Received by	Date/Time
[illegible]	8/31/87 1330						

Relinquished by	Date/Time	Received by	Date/Time	Relinquished by	Date/Time	Received for ORG Lab by	Date/Time
						Arthur M Burnett	9-3-87 1230

Relinquished by	Date/Time	Received for Inorg. Lab by	Date/Time

NYS DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF HAZARDOUS SITE REMEDIATION

****
* ANALYTICAL REPORT*
****

EXTRACTION METHOD: DILUTION
ANALYTICAL METHOD: 8250
INSTRUMENT ID: GC/MS "D"
DILUTION FACTOR: 10,000

SAMPLE ID: A98724605
SITE NAME: ETE SANITATION
MATRIX: DRUM WASTE
DATE COLLECTED: 02 SEP 87
DATE ANALYZED: 10 SEP 87

FILE NAME: >3D51A
SITE CODE: 9-60-801
% SOLIDS: 0.00
DATE EXTRACTED: 10 SEP 87
CONC. UNITS: UG/L

COMPOUND NAME	CONCENTRATION	Q-VAL
Aniline	42593.2	89
Phenol	133852.	72
bis(-2-Chloroethyl)Ether	181754	89
Isophorone	8142035	80
Dimethyl Phthalate	1764936	84
[illegible]	88.917	43
Diethylphthalate	2173.11	68
Fluorene	1872.04	96

NYS DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF HAZARDOUS SITE REMEDIATION

****
* ANALYTICAL REPORT*
****

EXTRACTION METHOD: PURGE&TRAP
ANALYTICAL METHOD: 8240
INSTRUMENT ID: GC/MS "A"
DILUTION FACTOR: 50.5

SAMPLE ID: A88724606
SITE NAME: ETE SANITATION
MATRIX: SOIL
DATE COLLECTED: 02 SEP 87
DATE ANALYZED: 10 SEP 87

FILE NAME: >4A79A
SITE CODE: 9-60-801
% SOLIDS: 89.0
DATE EXTRACTED: 09 SEP 87
CONC. UNITS: UG/L

COMPOUND NAME	CONCENTRATION	Q-VAL
Chloromethane	4.497	46
Bromomethane	4.775	91
Vinyl Chloride	14.033	89
Chloroethane	16.961	60
Carbon Disulfide	8.685	100
1,1-Dichloroethene	213.291	81
1,1-Dichloroethane	88.186	79
Trans-1,2-Dichloroethene	244.858	83
Chloroform	3.263	99
1,2-Dichloroethane	4.132	87
2-Butanone	47.668	70
1,1,1-Trichloroethane	2464.50	75
Carbon Tetrachloride	2922.53	85
Vinyl Acetate	22.880	23
Bromodichloromethane	4.550	83
1,2-Dichloropropane	4125.56	86
Trans-1,3-Dichloropropene	3.230	55
Trichloroethene	3123.77	87
Dibromochloromethane	2.536	93
1,1,2-Trichloroethane	105.697	86
Benzene	32.829	93
cis-1,3-Dichloropropene	3.232	55
2-Chloroethylvinylether	16.273	97
Tetrachloroethene	1562.16	94
1,1,2,2-Tetrachloroethane	2132.79	77
Toluene	167.679	96
Styrene	3.663	84
Total Xylenes	3.666	75

NYS DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF HAZARDOUS SITE REMEDIATION

****
* ANALYTICAL REPORT *
****

EXTRACTION METHOD: SOIL SONICATION
ANALYTICAL METHOD: 8250
INSTRUMENT ID: GC/MS "D"
DILUTION FACTOR: 1.07

SAMPLE ID:	A88724606	FILE NAME:	>3D50A
SITE NAME:	ETE SANITATION	SITE CODE:	9-60-801
MATRIX:	SOIL	% SOLIDS:	89.0
DATE COLLECTED:	02 SEP 87	DATE EXTRACTED:	09 SEP 87
DATE ANALYZED:	10 SEP 87	CONC. UNITS:	UG/L

COMPOUND NAME	CONCENTRATION	Q-VAL
Aniline	15.545	93
Phenol	101.950	82
bis(-2-Chloroethyl)Ether	34.025	83
2-Chlorophenol	.108	46
N-Nitroso-Di-n-propylamine	231.333	81
Nitrobenzene	2.463	75
Isophorone	[illegible].18	79
2-Nitrophenol	.146	80
2,4-Dimethylphenol	.212	71
Benzoic Acid	[illegible]52	85
bis(-2-Chloroethoxy)Methane	.038	61
4-Chloro-3-methylphenol	.137	71
Dimethyl Phthalate	133.111	72
Acenaphthylene	.200	92
Acenaphthene	.109	69
4-Nitrophenol	.555	94
Dibenzofuran	.050	92
2,4-Dinitrotoluene	.032	55
2,6-Dinitrotoluene	.333	89
Diethylphthalate	2.198	85
4-Chlorophenyl-phenylether	.254	86
Fluorene	18.428	87
4-Nitroaniline	21.823	8[illegible]
4,6-Dinitro-2-methylphenol	42.118	84
N-Nitrosodiphenylamine	.486	83
4-Bromophenyl-phenylether	.506	63
Pentachlorophenol	21.086	92
Phenanthrene	.837	83
Anthracene	.837	83
Di-n-Butylphthalate	91.373	98
Fluoranthene	.084	72
Pyrene	.159	7[illegible]
Butylbenzylphthalate	2.612	6[illegible]
Benzo(a)Anthracene	.236	89

N.Y.S. DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF HAZARDOUS WASTE REMEDIATION
BUREAU OF HAZARDOUS SITE CONTROL

H.S.L. METALS REPORT

SAMPLE NUMBER: A98724606
SITE NAME: ETE SANITATION
DATE COLLECTED: 02SEP87
DATE ANALYZED: 12NOV87
DATE REPORTED: 20NOV87

ARCHIVE NO.: M1049
SITE CODE: .....
MATRIX: SOIL
CONC. UNITS: MG/KG

METAL		CONC	CONTRACT REQUIRED DETECTION LIMITS (ug/L)
ALUMINIUM		7499.0	200
ANTIMONY	*	ND	60
ARSENIC	*	10100.	10
BARIUM		359.00	200
BERYLLIUM	*	ND	5
CADMIUM		.01	5
CALCIUM		NA	5000
CHROMIUM	*	4100.0	10
COBALT		ND	50
COPPER		34.70	25
IRON		21029.6	100
LEAD	*	3850.	5
MAGNESIUM		4030.	5000
MANGANESE		384.70	15
MERCURY	*	ND	0.2
NICKEL		16.25	40
POTASSIUM		1505.00	5000
SELENIUM	*	ND	5
SILVER	*	108.40	10
SODIUM		ND	5000
THALLIUM	*	ND	10
TIN	*	11056.0	40
VANADIUM	*	18666.0	50
ZINC		223.99	20

ND = NOT DETECTED NA = NOT ANALYZED
* CONCENTRATION UNITS ARE: WATER (ug/L), SOIL/SEDIMENT (ug/KG)

NYS DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF HAZARDOUS SITE REMEDIATION

****
* ANALYTICAL REPORT *
****

EXTRACTION METHOD: PURGE&TRAP
ANALYTICAL METHOD: 8240
INSTRUMENT ID: GC/MS "A"
DILUTION FACTOR: 1.0

SAMPLE ID: A38724607
SITE NAME: ETE SANITATION
MATRIX: WATER
DATE COLLECTED: 02 SEP 87
DATE ANALYZED: 03 SEP 87

FILE NAME: >4A65A
SITE CODE: 9-60-801
% SOLIDS: 00.0
DATE EXTRACTED: 09 SEP 87
CONC. UNITS: UG/L

COMPOUND NAME	CONCENTRATION	Q-VAL
Chloromethane	.439	77
Vinyl Chloride	.207	66
Chloroethane	.551	75
Carbon Disulfide	.452	100
1,1-Dichloroethane	.078	89
Chloroform	.087	58
[illegible]chloroethane	.07[illegible]	89
1,1,1-Trichloroethane	[illegible]	52
Vinyl Acetate	.883	57
Bromodichloromethane	.046	79
1,2-Dichloropropane	[illegible]	91
Trichloroethene	1.108	95
1,1,2-Trichloroethane	.059	80
Benzene	.084	63
cis-1,3-Dichloropropene	.082	57
2-Chloroethylvinylether	.113	96
1,1,2,2-Tetrachloroethane	62.361	57
Toluene	.585	94
Styrene	.097	96

NYS DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF HAZARDOUS SITE REMEDIATION

****
ANALYTICAL REPORT
****

EXTRACTION METHOD: PURGE&TRAP
ANALYTICAL METHOD: 8240
INSTRUMENT ID: GC/MS "A"
DILUTION FACTOR: 1.0

SAMPLE ID: A9872460?MS)
SITE NAME: ETE SANITATION
MATRIX: WATER)
DATE COLLECTED: 02 SEP 87
DATE ANALYZED: 09 SEP 87

FILE NAME: >4A66A
SITE CODE: 9-60-801
% SOLIDS: 00.0
DATE EXTRACTED: 09 SEP 87
CONC. UNITS: (UG/L)

COMPOUND NAME	CONCENTRATION	Q-VAL
Chloromethane	.446	64
Bromomethane	.046	79
Vinyl Chloride	.140	40
Chloroethane	.339	85
Carbon Disulfide	.632	100
1,1-Dichloroethene	39.886	92
1,1-Dichloroethane	.174	78
Trans-1,2-Dichloroethene	.047	95
Chloroform	.447	94
1,2-Dichloroethane	.355	96
2-Butanone	.341	72
1,1,1-Trichloroethane	98.821	82
Carbon Tetrachloride	.741	94
Vinyl Acetate	.411	39
Bromodichloromethane	.054	75
1,2-Dichloropropane	61.924	90
Trans-1,3-Dichloropropene	.065	79
Trichloroethene	50.586	78
1,1,2-Trichloroethane	.272	97
Benzene	48.761	89
cis-1,3-Dichloropropene	.125	79
2-Chloroethylvinylether	.447	88
2-Hexanone	.251	45
1,1,2,2-Tetrachloroethane	~~.674~~	(44)
Toluene	51.793	94
Chlorobenzene	56.703	81
Ethylbenzene	.061	85
Styrene	.269	42

NYS DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF HAZARDOUS SITE REMEDIATION

****
* ANALYTICAL REPORT *
****

EXTRACTION METHOD: PURGE&TRAP
ANALYTICAL METHOD: 8240
INSTRUMENT ID: GC/MS "A"
DILUTION FACTOR: 1.0

SAMPLE ID: A3872460?MSD
SITE NAME: ETE-SANITATION
MATRIX: WATER
DATE COLLECTED: 02 SEP 87
DATE ANALYZED: 09 SEP 87

FILE NAME: >4A67A
SITE CODE: 9-60-801
% SOLIDS: 00.0
DATE EXTRACTED: 09 SEP 87
CONC. UNITS: UG/L

COMPOUND NAME	CONCENTRATION	Q-VAL
Chloromethane	.096	67
Bromomethane	.046	97
Chloroethane	1.301	97
Carbon Disulfide	.494	100
1,1-Dichloroethene	35.810	94
1,1-Dichloroethane	.112	97
Chloroform	.023	95
1,2-Dichloroethane	.353	66
2-Butanone	8.903	47
1,1,1-Trichloroethane	24.882	81
Carbon Tetrachloride	.642	78
Vinyl Acetate	.668	68
Bromodichloromethane	.058	87
1,2-Dichloropropane	10.790	99
Trichloroethene	49.300	80
1,1,2-Trichloroethane	.150	73
Benzene	48.539	89
2-Chloroethylvinylether	.305	80
1,1,2,2-Tetrachloroethane	~~51.266~~	(70)
Toluene	49.266	93
Chlorobenzene	54.805	80
Styrene	.065	94

N.Y.S DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF HAZARDOUS WASTE REMEDIATION
BUREAU OF HAZARDOUS SITE CONTROL

H.S.L. METALS REPORT

SAMPLE NUMBER: A98724607
SITE NAME: ETE SANITATION
DATE COLLECTED: 02SEP87
DATE ANALYZED: 12NOV87
DATE REPORTED: 20NOV87

ARCHIVE NO.: M1050
SITE CODE: 960801

MATRIX: WATER
CONC. UNITS: MG/L

METAL		CONC	CONTRACT REQUIRED DETECTION LIMITS (ug/L)
ALUMINIUM		ND	200
ANTIMONY	*	ND	60
ARSENIC	*	ND	10
BARIUM		4.09	200
BERYLLIUM	*	ND	5
CADMIUM		.01	5
CALCIUM		NA	5000
[illegible]	*	ND	10
[illegible]		ND	50
COPPER		ND	25
IRON		.17	100
LEAD	*	ND	5
MAGNESIUM		6.10	5000
[illegible]		ND	15
MERCURY	*	ND	0.2
[illegible]		ND	40
POTASSIUM		23.29	5000
SELENIUM	*	ND	5
SILVER	*	ND	10
SODIUM		18.60	5000
THALLIUM	*	ND	10
TIN	*	13.90	40
VANADIUM	*	ND	50
ZINC		3.08	20

ND = NOT DETECTED; NA = NOT ANALYZED
* CONCENTRATION UNITS ARE: WATER (ug/L), SOIL/SEDIMENT (ug/KG)

NYS DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF HAZARDOUS SITE REMEDIATION

****
* ANALYTICAL REPORT*
****

EXTRACTION METHOD: PURGE&TRAP
ANALYTICAL METHOD: 8240
INSTRUMENT ID: GC/MS "A"
DILUTION FACTOR: 1.0

SAMPLE ID:	A88724610	FILE NAME:	>4A60A
SITE NAME:	ETE SANITATION	SITE CODE:	9-60-801
MATRIX:	WATER	% SOLIDS:	00.0
DATE COLLECTED:	02 SEP 87	DATE EXTRACTED:	10 SEP 87
DATE ANALYZED:	10 SEP 87	CONC. UNITS:	UG/L

COMPOUND NAME	CONCENTRATION	Q-VAL
Chloromethane	.533	99
Vinyl Chloride	.305	90
Carbon Disulfide	.232	100
1,1-Dichloroethene	.096	81
1,1-Dichloroethane	.170	86
Chloroform	.056	80
[illegible]	.215	92
1,1,1-Trichloroethane	1.367	81
Vinyl Acetate	.292	93
Bromodichloromethane	.053	91
1,2-Dichloropropane	19.943	95
Trichloroethene	.843	95
1,1,2-Trichloroethane	.102	79
Benzene	.071	75
2-Chloroethylvinylether	.254	88
1,1,2,2-Tetrachloroethane	36.829	85
Toluene	.520	96
Chlorobenzene	.035	82
Styrene	.054	64

NYSDEC, 1992A.

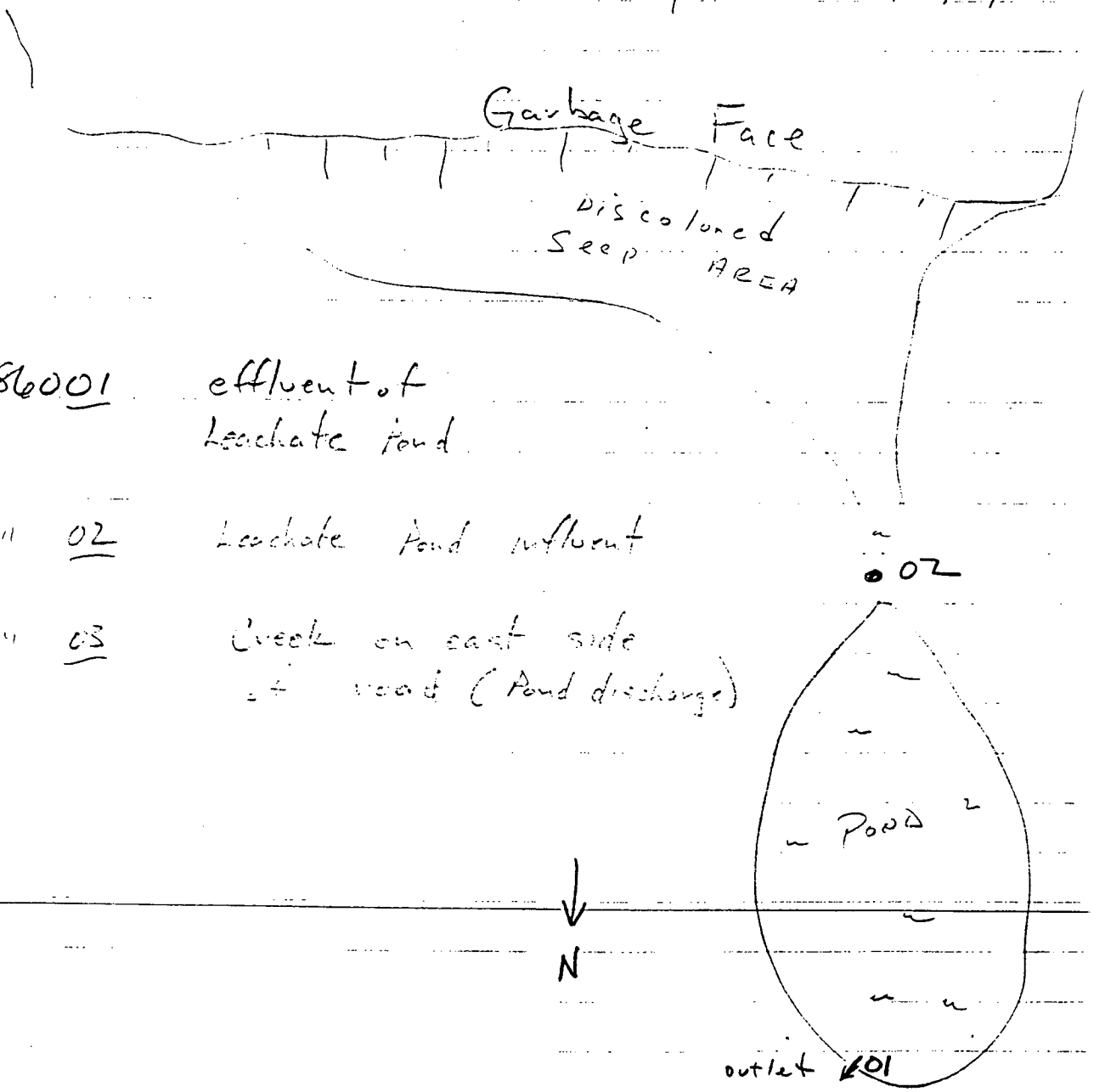
ETE Sanitation

#961005

Gerry,

These are the results of sampling @ ETE Sanitation May 92

by Kevin Glasa 4/25/92



186001 effluent of Leachate Pond

" 02 Leachate Pond influent

" 03 Creek on east side of road (Pond discharge)

ETC Sanitation

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO. A88601

Lab Name: RECRA ENVIRON Contract: C002412

Lab Code: RECNY Case No.: SH992 SAS No.: _____ SDG No.: 0514

Matrix: (soil/water) WATER Lab Sample ID: AS011433

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: L0294

Level: (low/med) LOW Date Received: 05/15/92

% Moisture: not dec. _____ Date Analyzed: 05/18/92

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	10	U
67-64-1	Acetone	32	
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	23	
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	0.5	J
100-42-5	Styrene	10	U
1330-20-7	Total Xylenes	4	J

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

A88601

Lab Name: RECRA ENVIRON Contract: C002412

Lab Code: RECNY Case No.: SH992 SAS No.: _____ SDG No.: 0514

Matrix: (soil/water) WATER Lab Sample ID: AS011433

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: L0294

Level: (low/med) LOW Date Received: 05/15/92

% Moisture: not dec. ____ Date Analyzed: 05/18/92

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

A88602

Lab Name: RECRA ENVIRON Contract: C002412

Lab Code: RECNY Case No.: SH992 SAS No.: _____ SDG No.: 0514

Matrix: (soil/water) WATER Lab Sample ID: AS011434

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: L0300

Level: (low/med) LOW Date Received: 05/15/92

% Moisture: not dec. _____ Date Analyzed: 05/18/92

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	9	J
75-09-2	Methylene Chloride	14	
67-64-1	Acetone	210	E
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	1	J
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	470	E
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-dichloropropene	10	U
79-01-6	Trichloroethene	1	J
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	2	J
10061-02-6	trans-1,3-dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	27	
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	31	
108-90-7	Chlorobenzene	2	J
100-41-4	Ethylbenzene	95	
100-42-5	Styrene	10	U
1330-20-7	Total Xylenes	330	

1E

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

A88602

Lab Name: RECRA ENVIRON Contract: C002412

Lab Code: RECNY Case No.: SH992 SAS No.: _____ SDG No.: 0514

Matrix: (soil/water) WATER Lab Sample ID: AS011434

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: L0300

Level: (low/med) LOW Date Received: 05/15/92

% Moisture: not dec. ____ Date Analyzed: 05/18/92

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 10

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		Alkyl benzene derivative	21.09	1	J
2.		Aromatic derivative	21.70	3	J
3.		Ethyl methyl benzene isomer	21.84	17	J
4.		Trimethyl benzene isomer	21.97	6	J
5.		Alkyl benzene derivative	22.29	6	J
6.		Trimethyl benzene isomer	22.55	20	J
7.		Unknown	23.27	1	J
8.		Diethyl benzene isomer	23.60	1	J
9.		Aromatic derivative	23.55	4	J
10.		Ethyl dimethyl benzene isomer	24.04	0.9	J

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

A88602DL

Lab Name: RECRA ENVIRON Contract: C002412

Lab Code: RECNY Case No.: SH992 SAS No.: _____ SDG No.: 0514

Matrix: (soil/water) WATER Lab Sample ID: AS011434DL

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: L0304

Level: (low/med) LOW Date Received: 05/15/92

% Moisture: not dec. ____ Date Analyzed: 05/18/92

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 4.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	40	U
74-83-9	Bromomethane	40	U
75-01-4	Vinyl Chloride	40	U
75-00-3	Chloroethane	40	U
75-09-2	Methylene Chloride	19	DJ
67-64-1	Acetone	240	D
75-15-0	Carbon Disulfide	40	U
75-35-4	1,1-Dichloroethene	40	U
75-34-3	1,1-Dichloroethane	40	U
540-59-0	1,2-Dichloroethene (total)	40	U
67-66-3	Chloroform	40	U
107-06-2	1,2-Dichloroethane	40	U
78-93-3	2-Butanone	470	D
71-55-6	1,1,1-Trichloroethane	40	U
56-23-5	Carbon Tetrachloride	40	U
75-27-4	Bromodichloromethane	40	U
78-87-5	1,2-Dichloropropane	40	U
10061-01-5	cis-1,3-dichloropropene	40	U
79-01-6	Trichloroethene	40	U
124-48-1	Dibromochloromethane	40	U
79-00-5	1,1,2-Trichloroethane	40	U
71-43-2	Benzene	40	U
10061-02-6	trans-1,3-dichloropropene	40	U
75-25-2	Bromoform	40	U
108-10-1	4-Methyl-2-Pentanone	26	DJ
591-78-6	2-Hexanone	40	U
127-18-4	Tetrachloroethene	40	U
79-34-5	1,1,2,2-Tetrachloroethane	40	U
108-88-3	Toluene	34	DJ
108-90-7	Chlorobenzene	2	DJ
100-41-4	Ethylbenzene	86	D
100-42-5	Styrene	40	U
1330-20-7	Total Xylenes	310	D

1E

EPA SAMPLE NO.

A88602DL

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: RECRA ENVIRON Contract: C002412

Lab Code: RECNY Case No.: SH992 SAS No.: _____ SDG No.: 0514

Matrix: (soil/water) WATER Lab Sample ID: AS011434DL

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: L0304

Level: (low/med) LOW Date Received: 05/15/92

% Moisture: not dec. ____ Date Analyzed: 05/18/92

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 4.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 6 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		Aromatic derivative	21.67	25	J
2.		Ethylmethylbenzene isomer	21.80	160	J
3.		Trimethylbenzene isomer	21.94	59	J
4.		Ethylmethylbenzene isomer	22.27	60	J
5.		Trimethylbenzene isomer	22.52	190	J
6.		Aromatic derivative	23.52	35	J

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

A88603

Lab Name: RECRA ENVIRON Contract: C002412

Lab Code: RECNY Case No.: SH992 SAS No.: _____ SDG No.: 0514

Matrix: (soil/water) WATER Lab Sample ID: AS011435

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: L0302

Level: (low/med) LOW Date Received: 05/15/92

% Moisture: not dec. _____ Date Analyzed: 05/18/92

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

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

1E

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

A88603

Lab Name: RECRA ENVIRON Contract: C002412

Lab Code: RECNY Case No.: SH992 SAS No.: _____ SDG No.: 0514

Matrix: (soil/water) WATER Lab Sample ID: AS011435

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: L0302

Level: (low/med) LOW Date Received: 05/15/92

% Moisture: not dec. ____ Date Analyzed: 05/18/92

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

A88601

Lab Name: RECRA ENVIRON Contract: C002412

Lab Code: RECNY Case No.: SH992 SAS No.: _____ SDG No.: 0514

Matrix: (soil/water) WATER Lab Sample ID: AS011433

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 11119Z

Level: (low/med) LOW Date Received: 05/15/92

% Moisture: _____ decanted: (Y/N) ___ Date Extracted: 05/20/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 05/27/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	4	J
621-64-7	N-Nitroso-Di-n-Propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)Methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-Methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethyl Phthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

A88601

Lab Name: RECRA ENVIRON Contract: C002412

Lab Code: RECNY Case No.: SH992 SAS No.: _____ SDG No.: 0514

Matrix: (soil/water) WATER Lab Sample ID: AS011433

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 11119Z

Level: (low/med) LOW Date Received: 05/15/92

% Moisture: _____ decanted: (Y/N) ___ Date Extracted: 05/20/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 05/27/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	50	U
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	5	J
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-Methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-Butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)Anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	Bis(2-Ethylhexyl)Phthalate	10	U
117-84-0	Di-n-Octyl Phthalate	10	U
205-99-2	Benzo(b)Fluoranthene	10	U
207-08-9	Benzo(k)Fluoranthene	10	U
50-32-8	Benzo(a)Pyrene	10	U
193-39-5	Indeno(1,2,3-cd)Pyrene	10	U
53-70-3	Dibenz(a,h)Anthracene	10	U
191-24-2	Benzo(g,h,i)Perylene	10	U

1F

EPA SAMPLE NO.

A88601

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: RECRA ENVIRON Contract: C002412

Lab Code: RECNY Case No.: SH992 SAS No.: _____ SDG No.: 0514

Matrix: (soil/water) WATER Lab Sample ID: AS011433

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 11119Z

Level: (low/med) LOW Date Received: 05/15/92

% Moisture: _____ decanted: (Y/N) ___ Date Extracted: 05/20/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 05/27/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

Number TICs found: 18

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		Unknown	5.47	3	J
2.		Unknown	7.15	40	J
3.		Unknown Acid	7.75	30	J
4.		Unknown	7.82	3	J
5.	646-07-1	4-Methyl Pentanoic Acid	8.44	38	JN
6.	142-62-1	Hexanoic Acid	8.57	5	JN
7.		Unknown Acid	9.57	28	J
8.		Unknown	9.67	3	J
9.		Unknown	9.97	4	J
10.		Unknown	10.12	5	J
11.		Unknown	10.89	8	J
12.		Unknown Acid	11.80	8	J
13.		Unknown Acid	13.32	42	J
14.		Unknown	13.42	4	J
15.		Benzenepropanoic Acid deriv.	14.59	48	J
16.	134-62-3	N,N-Diethyl-3-methyl benzamide	17.57	6	JN
17.		Unknown	19.17	5	J
18.		Oxygenated Compound	19.37	13	J

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

A88602

Lab Name: RECRA ENVIRON Contract: C002412

Lab Code: RECNY Case No.: SH992 SAS No.: _____ SDG No.: 0514

Matrix: (soil/water) WATER Lab Sample ID: AS011434

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 11124Z

Level: (low/med) LOW Date Received: 05/15/92

% Moisture: _____ decanted: (Y/N) ___ Date Extracted: 05/20/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 05/27/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

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

CAS NO.	COMPOUND		Q
108-95-2	Phenol	130	E
111-44-4	bis(2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	380	E
621-64-7	N-Nitroso-Di-n-Propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)Methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	46	
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-Methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethyl Phthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U

1F

EPA SAMPLE NO.

A88602

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: RECRA ENVIRON Contract: C002412

Lab Code: RECNY Case No.: SH992 SAS No.: _____ SDG No.: 0514

Matrix: (soil/water) WATER Lab Sample ID: AS011434

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 11124Z

Level: (low/med) LOW Date Received: 05/15/92

% Moisture: _____ decanted: (Y/N) ___ Date Extracted: 05/20/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 05/27/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

Number TICs found: 12

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		Unknown	9.07	21	J
2.		Unknown	9.92	59	J
3.		Unknown	10.69	89	J
4.		Unknown Acid	11.84	1700	J
5.		Unknown	11.99	88	BJ
6.		Unknown Acid	12.30	160	J
7.		Unknown	12.49	41	J
8.		Unknown	12.67	64	J
9.		Unknown	13.25	30	J
10.		Unknown	13.55	87	J
11.		Unknown Acid	14.94	110	J
12.		Benzenepropanoic Acid deriv.	16.12	170	J

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

A88602RE

Lab Name: RECRA ENVIRON Contract: C002412

Lab Code: RECNY Case No.: SH992 SAS No.: _____ SDG No.: 0514

Matrix: (soil/water) WATER Lab Sample ID: AS011434RI

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 11136Z

Level: (low/med) LOW Date Received: 05/15/92

% Moisture: _____ decanted: (Y/N) ___ Date Extracted: 05/20/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 05/28/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	150	E
111-44-4	bis(2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	680	E
621-64-7	N-Nitroso-Di-n-Propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)Methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	48	
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-Methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethyl Phthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.: A88602RE

Lab Name: RECRA ENVIRON Contract: C002412

Lab Code: RECNY Case No.: SH992 SAS No.: _____ SDG No.: 0514

Matrix: (soil/water) WATER Lab Sample ID: AS011434RI

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 11136Z

Level: (low/med) LOW Date Received: 05/15/92

% Moisture: _____ decanted: (Y/N) ___ Date Extracted: 05/20/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 05/28/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	50	U
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	6	J
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	44	
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-Methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	8	J
84-74-2	Di-n-Butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)Anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	Bis(2-Ethylhexyl)Phthalate	10	U
117-84-0	Di-n-Octyl Phthalate	10	U
205-99-2	Benzo(b)Fluoranthene	10	U
207-08-9	Benzo(k)Fluoranthene	10	U
50-32-8	Benzo(a)Pyrene	10	U
193-39-5	Indeno(1,2,3-cd)Pyrene	10	U
53-70-3	Dibenz(a,h)Anthracene	10	U
191-24-2	Benzo(g,h,i)Perylene	10	U

1F

EPA SAMPLE NO.

A88602RE

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: RECRA ENVIRON Contract: C002412

Lab Code: RECNY Case No.: SH992 SAS No.: _____ SDG No.: 0514

Matrix: (soil/water) WATER Lab Sample ID: AS011434RI

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 11136Z

Level: (low/med) LOW Date Received: 05/15/92

% Moisture: _____ decanted: (Y/N) ___ Date Extracted: 05/20/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 05/28/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

Number TICs found: 15

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		Unknown	9.89	110	J
2.	142-62-1	Hexanoic Acid	11.79	3900	JN
3.		Unknown	11.92	200	J
4.		Unknown	12.27	360	J
5.		Unknown Acid	12.44	70	J
6.		Unknown	12.62	140	J
7.		Unknown	12.95	86	J
8.		Unknown	13.17	34	J
9.		Unknown Acid	13.22	100	J
10.		Unknown Acid	13.50	210	J
11.		Unknown Acid	14.82	220	J
12.		Benzenepropanoic Acid deriv.	16.09	380	J
13.		Unknown	19.67	60	J
14.		Unknown	20.25	32	J
15.		Unknown Acid	20.57	35	J

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

A88602DL

Lab Name: RECRA ENVIRON Contract: C002412

Lab Code: RECNY Case No.: SH992 SAS No.: _____ SDG No.: 0514

Matrix: (soil/water) WATER Lab Sample ID: AS011434DL

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 11137Z

Level: (low/med) LOW Date Received: 05/15/92

% Moisture: _____ decanted: (Y/N) ___ Date Extracted: 05/20/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 05/28/92

Injection Volume: 2.0 (uL) Dilution Factor: 20.0

GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	300	D
111-44-4	bis(2-Chloroethyl)Ether	200	U
95-57-8	2-Chlorophenol	200	U
541-73-1	1,3-Dichlorobenzene	200	U
106-46-7	1,4-Dichlorobenzene	200	U
95-50-1	1,2-Dichlorobenzene	200	U
95-48-7	2-Methylphenol	200	U
108-60-1	2,2'-oxybis(1-Chloropropane)	200	U
106-44-5	4-Methylphenol	690	D
621-64-7	N-Nitroso-Di-n-Propylamine	200	U
67-72-1	Hexachloroethane	200	U
98-95-3	Nitrobenzene	200	U
78-59-1	Isophorone	200	U
88-75-5	2-Nitrophenol	200	U
105-67-9	2,4-Dimethylphenol	200	U
111-91-1	bis(2-Chloroethoxy)Methane	200	U
120-83-2	2,4-Dichlorophenol	200	U
120-82-1	1,2,4-Trichlorobenzene	200	U
91-20-3	Naphthalene	58	DJ
106-47-8	4-Chloroaniline	200	U
87-68-3	Hexachlorobutadiene	200	U
59-50-7	4-Chloro-3-Methylphenol	200	U
91-57-6	2-Methylnaphthalene	200	U
77-47-4	Hexachlorocyclopentadiene	200	U
88-06-2	2,4,6-Trichlorophenol	200	U
95-95-4	2,4,5-Trichlorophenol	500	U
91-58-7	2-Chloronaphthalene	200	U
88-74-4	2-Nitroaniline	500	U
131-11-3	Dimethyl Phthalate	200	U
208-96-8	Acenaphthylene	200	U
606-20-2	2,6-Dinitrotoluene	200	U
99-09-2	3-Nitroaniline	500	U
83-32-9	Acenaphthene	200	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.: A88602DL

Lab Name: RECRA ENVIRON Contract: C002412

Lab Code: RECNY Case No.: SH992 SAS No.: _____ SDG No.: 0514

Matrix: (soil/water) WATER Lab Sample ID: AS011434DL

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 11137Z

Level: (low/med) LOW Date Received: 05/15/92

% Moisture: _____ decanted: (Y/N) ___ Date Extracted: 05/20/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 05/28/92

Injection Volume: 2.0 (uL) Dilution Factor: 20.0

GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	1000	U
100-02-7	4-Nitrophenol	500	U
132-64-9	Dibenzofuran	200	U
121-14-2	2,4-Dinitrotoluene	200	U
84-66-2	Diethylphthalate	26	DJ
7005-72-3	4-Chlorophenyl-phenylether	200	U
86-73-7	Fluorene	200	U
100-01-6	4-Nitroaniline	500	U
534-52-1	4,6-Dinitro-2-Methylphenol	500	U
86-30-6	N-Nitrosodiphenylamine (1)	200	U
101-55-3	4-Bromophenyl-phenylether	200	U
118-74-1	Hexachlorobenzene	200	U
87-86-5	Pentachlorophenol	500	U
85-01-8	Phenanthrene	200	U
120-12-7	Anthracene	200	U
86-74-8	Carbazole	200	U
84-74-2	Di-n-Butylphthalate	200	U
206-44-0	Fluoranthene	200	U
129-00-0	Pyrene	200	U
85-68-7	Butylbenzylphthalate	200	U
91-94-1	3,3'-Dichlorobenzidine	200	U
56-55-3	Benzo(a)Anthracene	200	U
218-01-9	Chrysene	200	U
117-81-7	Bis(2-Ethylhexyl)Phthalate	200	U
117-84-0	Di-n-Octyl Phthalate	200	U
205-99-2	Benzo(b)Fluoranthene	200	U
207-08-9	Benzo(k)Fluoranthene	200	U
50-32-8	Benzo(a)Pyrene	200	U
193-39-5	Indeno(1,2,3-cd)Pyrene	200	U
53-70-3	Dibenz(a,h)Anthracene	200	U
191-24-2	Benzo(g,h,i)Perylene	200	U

X

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

A88602DL

Lab Name: RECRA ENVIRON Contract: C002412

Lab Code: RECNY Case No.: SH992 SAS No.: _____ SDG No.: 0514

Matrix: (soil/water) WATER Lab Sample ID: AS011434DL

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 11137Z

Level: (low/med) LOW Date Received: 05/15/92

% Moisture: _____ decanted: (Y/N) ___ Date Extracted: 05/20/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 05/28/92

Injection Volume: 2.0 (uL) Dilution Factor: 20.0

GPC Cleanup: (Y/N) N pH: 7.0

Number TICs found: 8

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	142-62-1	Hexanoic Acid	7.62	930	JN
2.	646-07-1	4-Methyl Pentanoic Acid	8.08	120	JN
3.	142-62-1	Hexanoic Acid	9.14	1300	JN
4.		Unknown Acid	9.45	370	J
5.	111-14-8	Heptanoic Acid	10.04	540	JN
6.		Unknown Acid	11.65	390	J
7.		Unknown Acid	13.05	520	J
8.		Benzenepropanoic Acid deriv.	14.40	930	J

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

A88603

Lab Name: RECRA ENVIRON Contract: C002412

Lab Code: RECNY Case No.: SH992 SAS No.: _____ SDG No.: 0514

Matrix: (soil/water) WATER Lab Sample ID: AS011435

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 11125Z

Level: (low/med) LOW Date Received: 05/15/92

% Moisture: _____ decanted: (Y/N) ___ Date Extracted: 05/20/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 05/27/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-Di-n-Propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)Methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-Methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethyl Phthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.: A88603

Lab Name: RECRA ENVIRON Contract: C002412

Lab Code: RECNY Case No.: SH992 SAS No.: _____ SDG No.: 0514

Matrix: (soil/water) WATER Lab Sample ID: AS011435

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 11125Z

Level: (low/med) LOW Date Received: 05/15/92

% Moisture: _____ decanted: (Y/N) ___ Date Extracted: 05/20/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 05/27/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	50	U
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-Methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-Butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)Anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	Bis(2-Ethylhexyl)Phthalate	10	U
117-84-0	Di-n-Octyl Phthalate	10	U
205-99-2	Benzo(b)Fluoranthene	10	U
207-08-9	Benzo(k)Fluoranthene	10	U
50-32-8	Benzo(a)Pyrene	10	U
193-39-5	Indeno(1,2,3-cd)Pyrene	10	U
53-70-3	Dibenz(a,h)Anthracene	10	U
191-24-2	Benzo(g,h,i)Perylene	10	U

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.: A88603

Lab Name: RECRA ENVIRON Contract: C002412

Lab Code: RECNY Case No.: SH992 SAS No.: _____ SDG No.: 0514

Matrix: (soil/water) WATER Lab Sample ID: AS011435

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 11125Z

Level: (low/med) LOW Date Received: 05/15/92

% Moisture: _____ decanted: (Y/N) ___ Date Extracted: 05/20/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 05/27/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

Number TICs found: 5

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	930-68-7	2-Cyclohexen-1-one	5.20	7	BJN
2.		Unknown	5.67	4	J
3.		Unknown	6.63	53	J
4.		Unknown	8.12	5	J
5.		Unsaturated Hydrocarbon	8.25	13	J

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

A88601

Lab Name: RECRA ENVIRON Contract: C002412

Lab Code: RECNY Case No.: SH992 SAS No.: _____ SDG No.: 0514

Matrix: (soil/water) WATER Lab Sample ID: AS011433

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

% Moisture: _____ decanted: (Y/N) ___ Date Received: 05/15/92

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 05/20/92

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 06/02/92

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: 7.0 Sulfur Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.045	JP
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-36-3	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

A88602

Lab Name: RECRA ENVIRON Contract: C002412

Lab Code: RECNY Case No.: SH992 SAS No.: _____ SDG No.: 0514

Matrix: (soil/water) WATER Lab Sample ID: AS011434

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

% Moisture: _____ decanted: (Y/N) ___ Date Received: 05/15/92

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 05/20/92

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 06/02/92

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: 7.0 Sulfur Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.62	
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-36-3	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO. 08

A88603

Lab Name: RECRA ENVIRON Contract: C002412

Lab Code: RECNY Case No.: SH992 SAS No.: _____ SDG No.: 0514

Matrix: (soil/water) WATER Lab Sample ID: AS011435

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

% Moisture: _____ decanted: (Y/N) ___ Date Received: 05/15/92

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 05/20/92

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 06/02/92

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: 7.0 Sulfur Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-36-3	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

NYSDEC-ASP

1

INORGANIC ANALYSES DATA SHEET

NYSDEC SAMPLE NO.

A88601

Lab Name: RECRA_ENVIRONMENTAL_INC._ Contract: C002412___

Lab Code: RECNY_ Case No.: SH992 SAS No.: _____ SDG No.: 0514__

Matrix (soil/water): WATER Lab Sample ID: 5551_____

Level (low/med): LOW__ Date Received: 05/15/92

% Solids: ____0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	79.0	B		P
7440-36-0	Antimony	44.0	B		P
7440-38-2	Arsenic	5.0	U		F
7440-39-3	Barium	264			P
7440-41-7	Beryllium	5.0	U		P
7440-43-9	Cadmium	5.0	U		P
7440-70-2	Calcium	104000			P
7440-47-3	Chromium	10.0	U		A
7440-48-4	Cobalt	20.0	U		P
7440-50-8	Copper	5.0	B		P
7439-89-6	Iron	4090			P
7439-92-1	Lead	12.8		SN	F
7439-95-4	Magnesium	20700			P
7439-96-5	Manganese	1020			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	26.0	B		P
7440-09-7	Potassium	19000			P
7782-49-2	Selenium	5.0	U	WN	F
7440-22-4	Silver	10.0	U		P
7440-23-5	Sodium	1780000			P
7440-28-0	Thallium	7.0	U		F
7440-62-2	Vanadium	20.0	U		P
7440-66-6	Zinc	10.0	U		P
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: ___

Comments:

LAB_SAMPLE_ID: AS011433

CLIENT_SAMPLE_ID: SH992-0514-A88601

NYSDEC-ASP

1

INORGANIC ANALYSES DATA SHEET

NYSDEC SAMPLE NO.

A88603

Lab Name: RECRA_ENVIRONMENTAL_INC._ Contract: C002412___

Lab Code: RECNY_ Case No.: SH992 SAS No.: _____ SDG No.: 0514__

Matrix (soil/water): WATER Lab Sample ID: 5555_____

Level (low/med): LOW__ Date Received: 05/15/92

% Solids: ____0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	50.0	U		P
7440-36-0	Antimony	40.0	U		P
7440-38-2	Arsenic	5.0	U		F
7440-39-3	Barium	73.0	B		P
7440-41-7	Beryllium	5.0	U		P
7440-43-9	Cadmium	5.0	U		P
7440-70-2	Calcium	66300			P
7440-47-3	Chromium	10.0	U		A
7440-48-4	Cobalt	20.0	U		P
7440-50-8	Copper	5.0	B		P
7439-89-6	Iron	447			P
7439-92-1	Lead	12.0		+N	F
7439-95-4	Magnesium	12200			P
7439-96-5	Manganese	206			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	20.0	U		P
7440-09-7	Potassium	5840			P
7782-49-2	Selenium	5.0	U	WN	F
7440-22-4	Silver	10.0	U		P
7440-23-5	Sodium	380000			P
7440-28-0	Thallium	7.0	U		F
7440-62-2	Vanadium	20.0	U		P
7440-66-6	Zinc	12.0	B		P
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

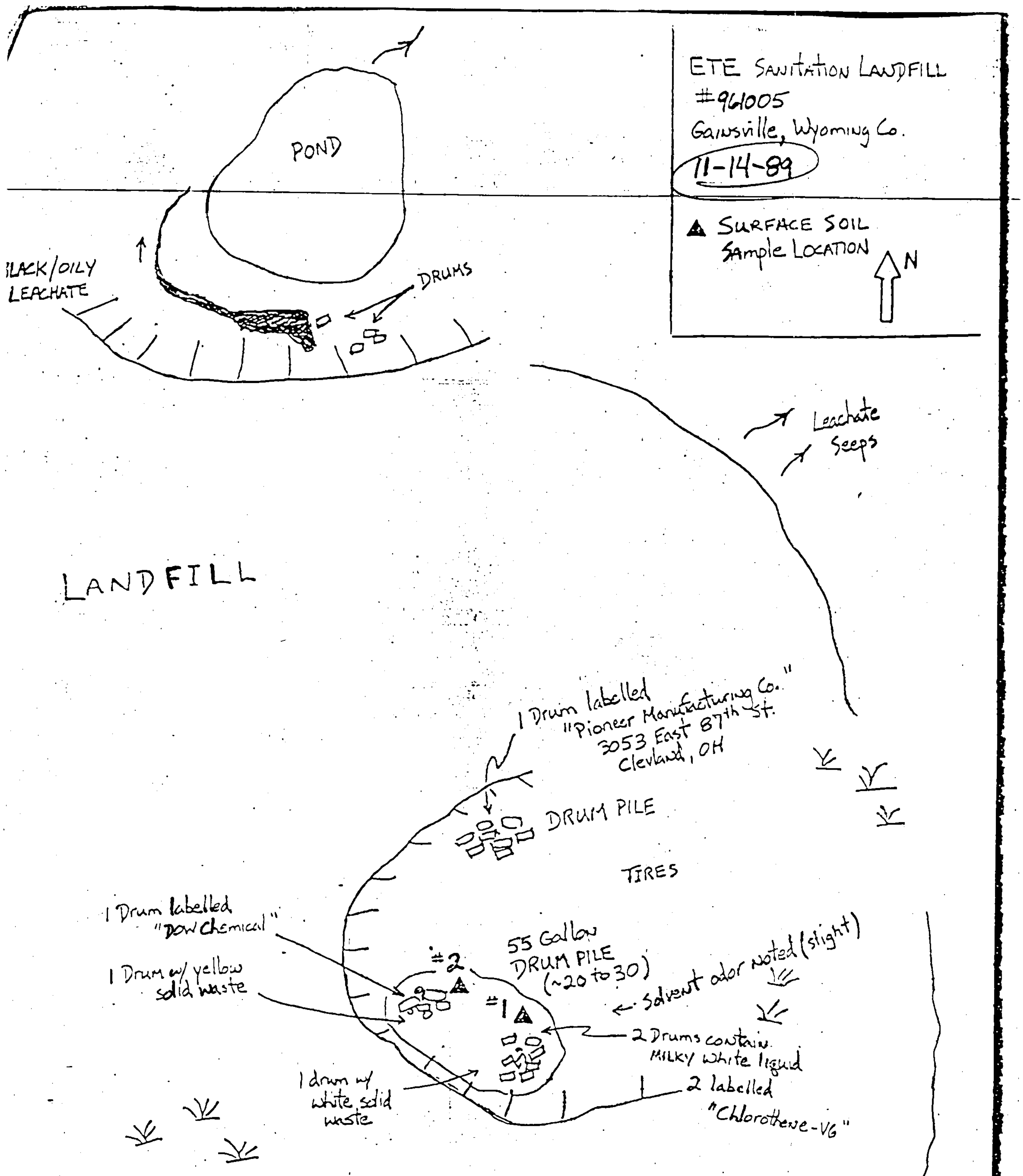
Color After: COLORLESS Clarity After: CLEAR_ Artifacts: ___

Comments:

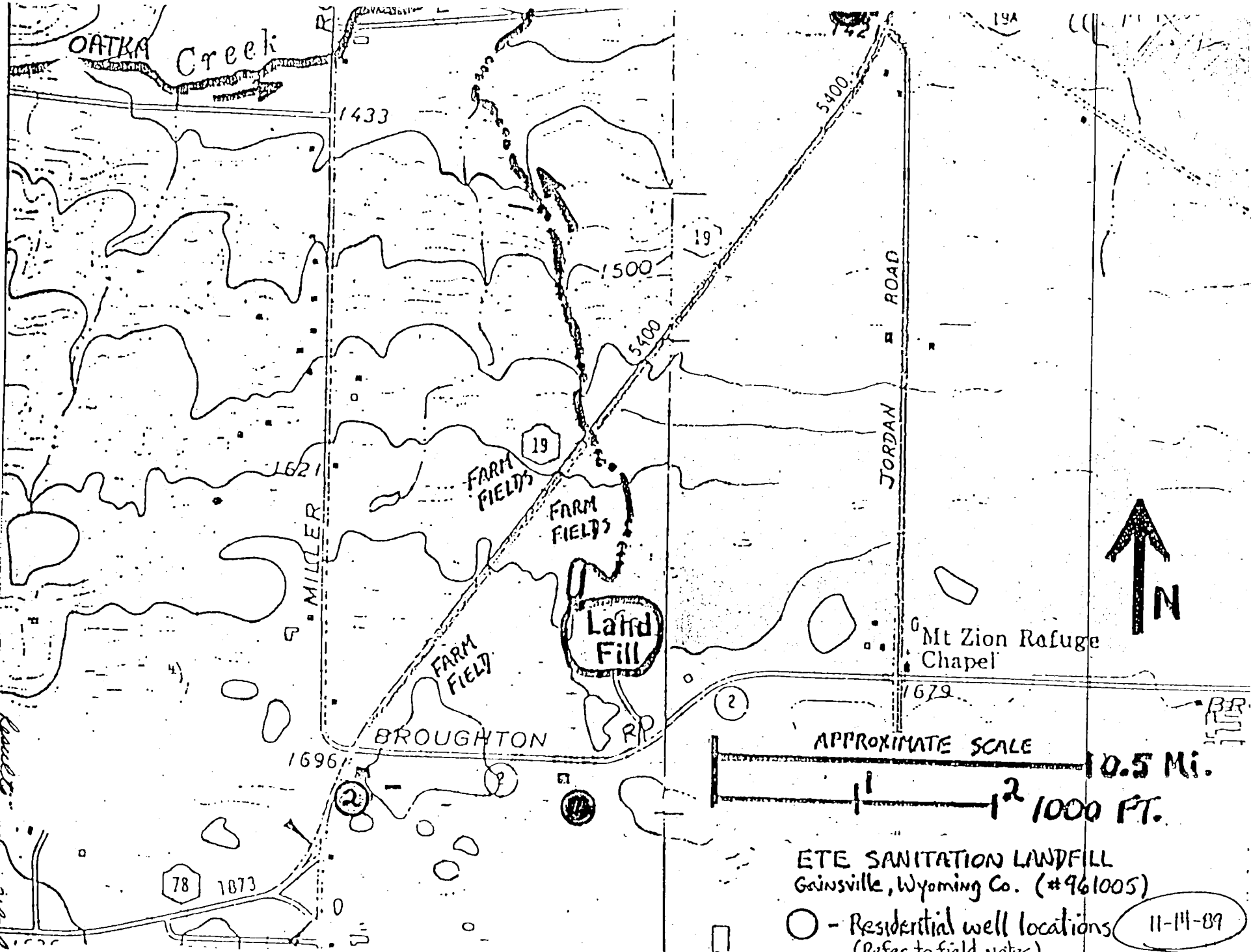
LAB_SAMPLE_ID:_AS011434

CLIENT_SAMPLE_ID:_SH992-0514-A88603

UNKNOWN, 1989.



Results in URS Report


OATKA Creek
1433
1500
5400
5400
ROAD
JORDAN
19
19
1621
FARM FIELDS
FARM FIELDS
FARM FIELD
MILLER
Land Fill
Mt Zion Refuge
Chapel
1679
BROUGHTON RD
1696
78
1873
N
APPROXIMATE SCALE
0.5 Mi.
1000 FT.
ETE SANITATION LANDFILL
Gainsville, Wyoming Co. (#961005)
○ - Residential well locations
(Refer to field Notes)
11-14-89