MALCOLM PIRNIE

FINAL REMEDIAL REPORT

N.Y.S. Superfund Standby Contract
Work Assignment #D002852-13
Roxy Cleaners Remedial Construction Oversight, Site #4-42-024

New York State Department of Environmental Conservation
Bureau of Construction Services
Division of Environmental Remediation

Prepared by:

Malcolm Pirnie, Inc.
15 Cornell Road
Latham, New York 12210

January 1998
0266321

TABLE OF CONTENTS

LIST OF APPENDICES

1.0 INTRODUCTION

1.1 PURPOSE

The Roxy Cleaners Site is located in the hamlet of Wynantskill in the Town of North Greenbush, Rensselaer County, New York, on the north side of NYS Route 66 approximately 150 feet west of its intersection with NYS Route 150. The New York State Department of Environmental (NYSDEC) lists this site as a State Superfund Site, No. 4-42-024, and has recently completed construction of a groundwater recovery and treatment system at this location. This report describes the construction project, summarizes the results of testing during startup of the facilities and provides a certification of the work.

1.2 SITE DESCRIPTION

The area surrounding the Roxy Cleaners Site may be characterized as mixed, commercial and residential with most of the commercial establishments located adjacent to Route 66 and single-family residential properties abutting the rear lot lines of the commercial properties. The immediate site area contains a single-story building, approximately 75 feet by 60 feet in size, which housed the Roxy Cleaners, a commercial laundry and dry cleaning business. This building fronts on Route 66. Immediately west of this building is a small restaurant, the "50's Cafe." A groundwater treatment building, constructed as part of this project, is located to the north of the former Roxy Cleaners building and east of Orchard Terrace. Residential structures are located to the north and east of this treatment building.

Two, groundwater recovery wells (RW-1 and RW-2) are located between the Roxy Cleaners building and the 50's Cafe. A third well, RW-3, is located on the south side of Route 66 approximately 750 feet west of the Roxy Cleaners building. Record drawings of these facilities are included in Appendix C.

1.3 SITE HISTORY

From 1959 through 1988, Roxy Cleaners, Inc. operated a dry cleaning establishment at this site and, allegedly, spilled or otherwise lost dry cleaning solvents which resulted in contamination of the site's soil and groundwater. In 1990, the NYSDEC, under the State Superfund Program, initiated a Remedial Investigation/Feasibility (RI/FS) Study of the site to define the nature and extent of contamination. The RI/FS documented the presence of a plume of contaminated groundwater extending from the Roxy building toward the south and west. The principle contaminants were found to be perchlorethylene, trichlorethylene and dichlorethylene.

In January, 1992, a vacuum extraction system was installed at the site as an interim remedial measure. Approximately 350 pounds of perchloroethylene were extracted from the soil above the groundwater using this system. In November, 1992, the RI/FS was completed, and in March, 1994, the Record of Decision was issued for the site.

The Record of Decision called for, among other measures, the collection and treatment of contaminated groundwater and the discharge of the treated water to the Wynantskill Creek. The collection and treatment system was designed by Malcolm Pirnie during late 1994 and early 1995, and construction documents for the proposed facilities were approved by NYSDEC on March 31, 1995. Construction of the groundwater recovery and treatment system began in September, 1996, and the system was started up in April, 1997. The project was determined to be substantially complete on April 25, 1997, and a notice of final completion was issued for May 26, 1997.

The remedial construction project included the following work:

- The installation of well pumps in three, existing groundwater recovery wells and the construction of small diameter pipe lines from these wells to the treatment plant.

- The construction of a prefabricated building to house treatment equipment.

- The installation and testing of water treatment equipment consisting of an air stripper, piping and controls to remove volatile organic contaminants from the groundwater, granular activated carbon treatment units to remove vapor phase volatile organic contaminants stripped from the groundwater, and provisions to add liquid phase granular activated carbon treatment units to the

process train in the event semi-volatile contaminates are found in the groundwater captured by the recovery wells.

- A treated water discharge pipeline from the treatment building to an existing storm sewer which discharges to the Wynantskill.

2.0 CONSTRUCTION ACTIVITIES

2.1 ADVERTISEMENT AND AWARD OF CONTRACT

The NYSDEC advertised the contract for bids on December 15, 1995, and bids were opened January 16,1996. A total of 15 bidders responded. The bid tabulation is included as Appendix D. The low bidder was Environmental Waste Technology, Inc. (EWT) of Newton Upper Falls, Massachusetts. The bid prices ranged from $169,572 to $639,500.

The construction contract was awarded to Environmental Waste Technology, Inc. (Contractor) in June, 1996, after receipt and approval of their Health and Safety Plan, Work Plan, QA/QC Plan, Sampling Protocol Plan and proposed schedule. The NYSDEC issued a notice to proceed to EWT on August 5, 1996. This established the date for substantial completion of the work as February 25, 1997.

Malcolm Pirnie, Inc. (Malcolm Pirnie) of Albany, NY was assigned the task of construction oversight for the project under a New York State Superfund Standby Contract between the NYSDEC and that firm.

2.2 PRE-CONSTRUCTION ACTIVITIES

A Pre-Construction Meeting was held on July 31, 1996 at the North Greenbush Town Hall with the Contractor and representatives from the Town, the NYSDEC, the New York State Department of Transportation (NYSDOT), and Malcolm Pirnie. At the meeting, administrative, health and safety and project-specific issues were discussed. Mr. Steve Chandler, EWT Project Manager, stated an alternate treatment system manufactured by Geopure would be submitted for approval.

Information submitted to the NYSDEC by the Contractor before award of the contract indicated that a shallow tray type stripper system would be submitted for approval rather than a diffused bubble stripper as specified in the bid documents. This substitution of a major piece of treatment process equipment was acceptable to the NYSDEC and to Malcolm Pirnie as long as the Contractor agreed to take responsibility for meeting the

treatment requirements specified in the contract documents and for any costs related to changes in electrical power requirements, alarms, treatment building floor plan and piping layout, etc. As a result, the shallow tray stripper system was successfully installed and tested by the Contractor.

2.3 CONSTRUCTION ACTIVITIES

2.3.1 Introduction

Prior to the commencement of actual construction, site meetings were held on August 23, 1996, September 6, 1996, and September 16, 1996. On September 6, 1996, staff from EWT, NYSDEC, Malcolm Pirnie, List Construction, and Fraser and Associates met at the site to discuss and resolve potential conflicts between the work by EWT and the construction of public water mains in the area by List Construction. The design of the water mains by Fraser and Associates, a related part of the remedial action taken by the NYSDEC at the Roxy Site, did not take into account the proposed locations for the groundwater recovery system water lines, and some conflicts were found to exist between pipe locations in the two system. These conflicts were resolved by minor realignments of proposed pipes.

At the site meeting of September 16, 1996, EWT introduced a subcontractor, Precision Industrial Maintenance Inc., to representatives of Malcolm Pirnie and M.J. Engineering, Inc., who provided on-site inspection services to the project. Construction began during the week of September 23, 1997, with excavation for the treatment building foundation and the installation of the sleeve under Route 66 to carry the water line from RW-3 to the treatment system.

2.3.2 Steel Casing Under Route 66

Hebron Valley Boring, a subcontractor to EWT, installed the 6-inch diameter, steel casing under the state highway by augering and jacking during the period September 23 to October 3, 1996. During excavation of the jacking pit on the south side of Route 66, the subcontractor encountered large pieces of concrete, tree trunks, stumps and other debris which had apparently been used as fill in this area. Sections of concrete slabs, some as large

as 8 feet by 10 feet and 6 to 8 inches thick, were encountered and had to be broken up for removal. Although some obstructions were encountered during the jacking and augering operation, the installation of the sleeve proceeded without major difficulty until a point just short of the northerly shoulder of the highway. At this point, the Contractor excavated a gas main known to be in this location and found that it was in conflict with the top of the sleeve. It was noted at this time that the sleeve was approximately 8-inches higher in elevation than originally designed and that it had probably been forced off its design grade by boulders and/or debris encountered during the boring. The depth of the sleeve was determined to be adequate to protect the carrier pipe against freezing and could be terminated short of its target length and still satisfy the NYSDOT's requirements. The conflict with the gas main was resolved, by Niagara Mohawk Power Corporation, by raising the elevation of the gas main slightly to allow the sleeve to pass under it. The total length of the 6-inch diameter steel casing installed under the highway is 82.5 linear feet.

2.3.3 Recovery Well Water Lines

Installation of the water lines and electrical conduits from the three recovery wells to the treatment building was done by Precision Industrial. This work, plus the installation of the 6-inch diameter gravity drainage pipe from the treatment building to a storm sewer on the north side of NYS Route 66, was completed by the end of the first week of December. A total of 198 linear feet of 1-inch diameter and 980 linear feet of 1.5-inch diameter water line pipe was installed and tested. Two air relief structures were installed at high points along the 1.5-inch diameter water line pipe.

2.3.4 Treated Water Drain Line

During the installation of a 6-inch diameter, ductile iron pipe discharge line to convey treated water from the treatment system to a NYSDOT storm drain adjacent to Route 66, an improperly charted gas line was encountered in conflict with the discharge line. A crew from the Niagara Mohawk Power Company relocated this line slightly to allow the drain line to pass over it. A total of 209 linear feet of 6-inch diameter DIP discharge line and two manholes were installed.

2.3.5 Treatment Building and Foundation

The foundation slab for the treatment building was also constructed by Precision Industrial under its subcontract with EWT. Prior to pouring the concrete slab, an issue arose regarding the necessity of installing reinforcing steel in a 6-inch high curb under the building walls. This curb was added by an addendum to the bid documents, and no drawing was supplied to show the placement of reinforcing steel. Malcolm Pirnie supplied sketches for the installation of the reinforcing and the foundation slab was completed by the end of the first week of December, 1996.

The prefabricated, fibreglass reinforced plastic building to house the treatment equipment was erected on the foundation slab by EWT between December 16 and December 19, 1996. The installation of electric power and alarm circuits for the well pumps and building was accomplished by M. Gold and Son, electrical contractors, under a subcontract with EWT.

2.3.6 Treatment System

The groundwater treatment equipment was delivered to the site on February 21, 1997 and installed over the following three weeks. This equipment consists of a shallow tray air stripper supplied by Geopure, Inc. of Gainesville, FL. The equipment was assembled and tested by Geopure at their facility, dismantled, shipped and reassembled at the project site by Geopure technicians and EWT.

As has been noted above, the design and bid documents for the project were based on a diffused bubble type stripper rather than a shallow tray system. The construction contract documents provided for the use of substitute, "or equal" equipment. EWT announced its intention of furnishing a shallow tray type stripper system prior to award of the contract and, although a number of changes to the layout of the treatment building were required, this substitution was accepted by the NYSDEC and Malcolm Pirnie, Inc. with the stipulation that the Contractor had to accept any additional costs and risks which might be associated with the change in equipment.

2.3.7 Recovery Well Pumps

In attempting to test the stripper and system alarms and controls prior to shipping the equipment to the construction site, Geopure, Inc. encountered a problem with the well pumps purchased for the project. The well pumps specified for the project were submersible pumps with ceramic impellers and variable speed motors. The pumps were supplied by Gould Pump Company of Seneca Falls, NY and shipped, at the Contractor's request, to the Geopure manufacturing facility in Florida. According to the Contractor, at least one of the pumps arrived with a damaged impeller. Attempts to replace the impeller were unsuccessful as each replacement unit failed when the pump was operated. Discussions between the pump manufacturer and Malcolm Pirnie revealed that these pumps were susceptible to impeller breakage during shipment unless handled very carefully. The manufacturer offered to replace the impellers using factory-trained staff, repackage and ship the pumps to the job site and have them installed in the wells by a trained technician to avoid any further problems. This was not acceptable to the Contractor who wanted the total system, including the pumps, tested by the stripper manufacturer before any of the equipment was delivered to the job site. After much discussion and a review of the probable service conditions under which the pumps would operate, it was decided that alternative pumps with a stainless steel impellers, manufactured by Grundfos Pump Corporation would be acceptable. These pumps utilize the same motors and variable speed controllers as originally furnished by Gould Pump Company for use with the Gould pumps and have very similar characteristic curves. Accordingly, the Grundfos pumps were furnished and installed.

2.4 FACILITY TESTING AND START-UP

2.4.1 Pipeline Testing

All piping systems were tested in accordance with the contract documents and accepted on the basis of these tests. On January 6, 1997, the 6-inch diameter, gravity discharge piping from the treatment building to the storm drainage structure near NYS Route 66 was pressure tested at 5 pounds per square inch and held this pressure for the required time with no loss of pressure. An initial test of the pipelines from wells RW-1 and

RW-2 to the treatment building, conducted on January 7, 1997, failed due to a damaged pressure fitting. After replacing the fitting, testing of these pipelines was successfully completed on January 8, 1997. These pipelines were tested at a pressure of 100 psi with no loss of pressure for two hours. On January 9, 1997, the pipeline from RW-3 to the treatment building, including all piping through the air relief structures and that within the building prior to the stripper, was tested at 100 psi for 2.5 hours with no loss of pressure.

2.4.2 Treatment System Testing

The treatment equipment was tested at the site using a mixture of water and perchlorethylene in accordance with the contract documents. The contract requires that the air stripper lower the concentration of perchlorethylene from 1,750 parts per billion (ppb) in the influent to 5 ppb in the effluent. The NYSDEC effluent limitation for this compound is 10 ppb for the Roxy Cleaners site.

The first test of the system was conducted on March 18, 1997. During this initial test of the stripper's ability to remove perchlorethylene, samples were collected and sent to Toxikon Corp's. laboratory in Bedford, MA. The analytical results indicated that the test solution had not been mixed adequately and the concentration of perchlorethylene in the influent to the stripper varied widely. Therefore, the results of this test were rejected.

On March 28, 1997, a second test was conducted. To be sure that the test solution was homogeneous, the test solution was made up by mixing small amounts of perchlorethylene with solution water in a 55-gallon drum, stirring the contents to ensure that all the chemical was dissolved, and then transferring this solution to the 5,000-gallon solution tank. Water was added to the 5,000-gallon tank to make up the correct concentration of perchlorethylene, and the tank contents were mixed for approximately two hours following addition of the smaller solutions of perchlorethylene using three submersible pumps installed in the tank. These pumps were kept running throughout the test period to keep the solution mixed. A fourth pump was used to deliver the test solution to the stripper at a constant rate of 21.5 gallons per minute (gpm). Treated water was collected and stored in a second, 5,000-gallon tank, tested to show that it met the effluent limitations, and discharged to the site effluent sewer.

One sample of the influent to the stripper was collected at the start of the test. Three samples of the effluent were collected at approximate two-hour intervals. The temperature of the test solution was monitored during the test as was the flow rate through the stripper. The results of the second test are included below.

RESULTS OF STRIPPER TEST

(Analysis by Toxikon Corp., Bedford, MA)

March 28, 1997

Time	Influent Temperature	Influent PCE Conc.	Effluent PCE Conc.
12:15	46.5 degrees F	2,100 ppb	
13:20	48 degrees F		less than 2.0 ppb
14:40	49 degrees F		less than 2.0 ppb
16:00	50 degrees F		less than 2.0 ppb

As noted in the table, the concentration of perchlorethylene in the effluent from the stripper was consistently below the 5.0 ppb specified in the construction contract documents. Furthermore, the laboratory results for the influent PCE concentration were reported at 2,100 ppb, somewhat higher than the 1,750 ppb called for in the contract documents. This indicates that the system meets or exceeds the treatment requirements specified in the design.

On April 4, 1997, following receipt of draft laboratory results from the testing conducted on March 28, 1997, the well pumps and stripper system were started up and the pumping rates adjusted as follows: RW-1, 0.5 gpm; RW-2, 5 gpm; RW-3, 12.5 gpm. Treated water was collected and pumped into a 5,000-gallon storage tank. Approximately 45 minutes after starting the system, samples were collected from the treated water storage tank and delivered to the laboratory for analysis of volatile organics and other parameters for which NYSDEC had established discharge limits. The temperature of the well water was noted to be 48 degrees F during this test, which is in the same range as the temperature of the synthetic wastewater used for the test on March 28, 1997. The system operated for approximately 4.5 hours and was shut down when the 5,000-gallon storage tank was approaching full capacity.

When adjusting the recovery well pump flow rates, it was discovered that the maximum output obtainable from RW-3 was only 12.5 gpm. Inasmuch as the design output

from this well was 16 gpm, an investigation into the cause of the low output was conducted. The result of this investigation showed that the pumps designed for RW-3 and RW-1 had been switched during installation, and these pumps were subsequently removed and placed in their proper locations. It was also learned that well RW-1 could not sustain a yield of 0.5 gpm and that the pump in this well shut down periodically at low water level and restarted upon recovery of the water level in the well.

The laboratory results for the samples collected on April 4, 1997 showed that the stripper effluent met all NYSDEC discharge limits. Concentrations of volatile organic compounds were all below the laboratory detection limits while lead and iron, total suspended solids and total dissolved solids were all well under the discharge limitation.

On April 11, 1997, after receiving draft information from the laboratory on the April 4, 1997 test results, the system was restarted for a 14-day acceptance testing period. The recovery well pumping rates were adjusted to the design rates of 0.5 gpm for RW-1, 5.0 gpm for RW-2, and 16.0 gpm for RW-3, and all treated water was discharged directly to the site effluent sewer.

Samples were collected in accordance with NYSDEC monitoring requirements on April 16, 1997 and April 23, 1997, and the system was monitored on a frequent basis for mechanical or other problems. A "punch list" of outstanding work items required to be completed prior to final acceptance of the project was prepared and delivered to the Contractor on April 17, 1997. No significant problems were identified during this test period, and the Contractor was issued a Certificate of Substantial Completion for the project effective April 25, 1997. The results of the sampling conducted on April 4, 1997 and during the 14-day test period are summarized in Appendix B and show that the system met all the NYSDEC discharge limitations established for this project.

During the period from April 25 to July, while the Contractor was addressing outstanding work items, the system remained operational. An additional 10 weekly effluent monitoring samples were collected by Malcolm Pirnie and M.J. Engineering staff and delivered to the New York State Department of Health Laboratories for analysis. The results of these samples are summarized in Appendix B and show that the system continues to meet

discharge requirements. Following this 10-week effort, effluent monitoring became the responsibility of the NYSDEC Operations and Maintenance Section.

3.0 CHANGE ORDERS

Change Order No. 1 covered additions and deletions from the contract and included the following subitems:

- Additional costs incurred to remove and dispose of large pieces of construction and demolition debris from the boring pit and a portion of the pipe trench on the Mulson property south of NYS Route.
- Additional costs incurred due to the presence of a gas main which was incorrectly shown on the construction drawing and which interfered with the installation of the 6-inch diameter drain pipe from the treatment process.
- Additional costs incurred in filling an abandoned vault encountered along the water main route in Dino's Restaurant parking lot.
- Additional costs incurred due to the presence of unmarked potable water well lines in the vicinity of the RW-1 and RW-2 water line routes and additional costs incurred in investigating and attempting to resolve water flow problems in the 50's Cafe.
- Additional paving provided to fill a depression in Mulson's parking lot.
- Additional costs incurred in moving a gas main in the Route 66 casing receiving pit and repaving the area.
- Additional costs incurred to provide curbing rebar for the treatment building foundation.
- Additional costs incurred to install four pressure gages to determine head losses across the cartridge filters.
- Additional costs incurred to upgrade the treatment building power panel to NEMA 12 specifications.
- Additions and reductions in the final contract price due to differences between the estimated quantities and final quantities calculated for unit price bid items.
- An 84 day contract time extension from the Contract Substantial Completion Date to the actual Substantial Completion Date of April 25, 1997.

A copy of the change order document is included in Appendix A.

4.0 ENGINEERS CERTIFICATION STATEMENT

Malcolm Pirnie personnel and subconsultants under Malcolm Pirnie's direction have inspected the construction of the Roxy Cleaners Groundwater Remediation System. The construction at the site was completed in substantial conformance with the construction contract documents approved by NYSDEC.

Contract Documents

1. Contract No. 1, Roxy Cleaners Groundwater Remediation, NYSDEC Site No. 442024, Town of North Greenbush, New York, March, 1995.
2. Change Order No. 1.
3. Approved Shop Drawings.

Date: 1/6/98

Malcolm Pirnie, Inc.

APPENDIX A

Change Order No. 1

APPENDIX B

Treatment System Laboratory Test Results

NYSDEC SUPERFUND STANDBY CONTRACT
ROXY CLEANERS SITE, WYNANTSKILL, NY

SUMMARY OF SAMPLING AND ANALYSIS

INDEX	LAB	SAMPLER	REPORT DATE	WORK ORDER NO.	SAMPLE DATE	SAMPLE COLLECTION POINT						8240	8260 + Styrene	Pb & Fe	TSS/ TDS	COMMENT
						INF RW-1	INF RW-2	INF RW-3	INF COMB.	EFFL.	TANK					
1	TOXICON	EWT/CUNLIFFE		9703356	18-Mar-97	2	0	0	0	3	0	5	0	0	0	Synthetic Test #1 (Rejected)
2	TOXICON	EWT/CUNLIFFE	10-Apr-97	9703524	28-Mar-97	0	0	0	1	3	0	4	0	0	0	Synthetic Test #2
3	TOXICON	EWT/CUNLIFFE	23-Apr-97	9704075	4-Apr-97	0	0	0	0	1	1	1	1	1	1	Well Test/Tank Dump/SPDES
4	TOXICON	EWT/CUNLIFFE	7-May-97	9704314	16-Apr-97	0	0	0	0	1	0	0	1	1	1	SPDES - 1
5	TOXICON	EWT/CHANDLER	15-May-97	9704452	23-Apr-97	1	1	1	0	1	0	0	4	1	1	SPDES - 2
6	**START OF 14 DAY TEST RUN - 11-Apr-97**															
7	**SITE WALK-OVER/RUN-THROUGH - 21-Apr-97**															
8	**END OF 14 DAY TEST RUN - 26-Apr-97**															
9	NYSDOH	MJE/BOWMAN			5/2/97											SPDES -3
10	NYSDOH	MJE/BOWMAN			5/13/97											SPDES -4
11	NYSDOH	MJE/BOWMAN			5/20/97											SPDES -5
12	NYSDOH	MJE/BOWMAN			5/27/97											SPDES -6
13	NYSDOH	MPI/MALCOLM			6/3/97											SPDES -7
14	NYSDOH	MPI/MALCOLM			6/10/97											SPDES -8
15	NYSDOH	MJE/BOWMAN			6/18/97											SPDES -9
16	NYSDOH	MJE/BOWMAN			6/24/97											SPDES -10
17	NYSDOH	MJE/BOWMAN			7/1/97											SPDES -11
18	NYSDOH	MJE/BOWMAN			7/8/97											SPDES -12

TOXIKON

15 Wiggins Ave., Bedford, MA 01730
Telephone: (617) 275-3330
Fax: (617) 275-7478

CHAIN OF CUSTODY RECORD

WORK ORDER #: [illegible]

ROXY CLEANERS SITE, WYNANTSKILL, NY

DUE DATE : 4 - 3 - 97

COMPANY: Environmental Waste Technology
ADDRESS: 1039 Chestnut ST
Newton Upper Falls, MA
PHONE #: (617) 332-2877 FAX #: ~~(518) 785-3671~~
P.O. #: 7827 617-332-8913
PROJECT MANAGER: David Cunliffe
PROJECT ID/LOCATION: Roxy Cleaners, NY

SAMPLE TYPE	CONTAINER TYPE
1. WASTEWATER	P - PLASTIC
2. SOIL	G - GLASS
3. SLUDGE	V - VOA
4. OIL	
5. DRINKING WATER	
6. WATER (GW/MW/SW)	
7. OTHER (SPECIFY	

TOXIKON #	SAMPLE IDENTIFICATION	SAMPLE TYPE	CONTAINER SIZE	CONTAINER TYPE	CONTAINER #	SAMPLING DATE	SAMPLING TIME	PRESERVATIVE	ANALYSES: 8240 Tetrachloroethene	SPECIAL INSTRUCTIONS/ COMMENTS
1	INF-7827-4	6	2x 40ml	V	2	3/24/97	12:15pm		X	
2	EFF-7827-4	6	2x 40ml	V	2	3/24/97	1:20pm		X	
3	EFF-7827-5	6	2x 40ml	V	2	3/21/97	2:40pm		X	
4	EFF-7827-6	6	2x 40	V	2	3/24/97	4:00pm		X	
		Please FAX Results to 617-332-8712								

SAMPLED BY: D.W. Cunliffe	DATE: 3 - 24 - 97	QUOTATION #:	Three day turnaround
RELINQUISHED BY:	TIME: See Above		☒ RUSH ..... BUSINESS DAY TURN AROUND
	DATE: - -	RECEIVED BY:	☐ ROUTINE
	TIME: - -	DATE: 3 - 31 - 97	*Sample disposal information*
RELINQUISHED BY:	DATE: - -	TIME: 0845 -	Are there any other known or suspected contaminants in these samples other than those listed above?
	TIME: - -	RECEIVED FOR LAB BY:	Yes ✓ No ____ If Yes, 1st Known Perchloroethylene
METHOD OF SHIPMENT		DATE: - -	
		TIME: - -	
		COOLER TEMPERATURE	

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE IDENTIFICATION AND ANALYTICAL REQUIREMENT SUMMARY

Customer Sample Code	Laboratory Sample Code	Analytical Requirements					
		*VOA GC/MS Method #	*BNA GC/MS Method #	*VOA GC Method #	*Pest PCBs Method #	*Metals	*Other
INF7827-4	9703524.01	8240					
EFF7827-4	9703524.02	8240					
EFF7827-5	9703524.03	8240					
EFF7827-6	9703524.04	8240					

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE PREPARATION AND ANALYSIS SUMMARY
VOLATILE (VOA)
ANAYLYSES

Laboratory Sample ID	Matrix	Date Collected	Date Rec'd at Lab	Date Extracted	Date Analyzed
9703524.01	WATER	3/28/97	3/31/97		4/3/97
9703524.02	WATER	3/28/97	3/31/97		4/3/97
9703524.03	WATER	3/28/97	3/31/97		4/3/97
9703524.04	WATER	3/28/97	3/31/97		4/3/97

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

INF7827-4

Lab Name: Toxikon Corp. Contract:

Lab Code: TOXIKON Case No.: SAS No.: SDG No.: 2

Matrix: (soil/water) WATER Lab Sample ID: 9703524.01

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: G1685.D

Level: (low/med) LOW Date Received: 03/31/97

% Moisture: not dec. Date Analyzed: 04/03/97

GC Column: 624 ID: 0.20 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
75-01-4	Vinyl Chloride	10	U
74-83-9	Bromomethane	10	U
75-00-3	Chloroethane	10	U
67-64-1	Acetone	50	
75-15-0	Carbon Disulfide	4	J
75-09-2	Methylene Chloride	2	J
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
156-60-5	trans-1,2-Dichloroethene	10	U
108-05-4	Vinyl Acetate	10	U
78-93-3	2-Butanone	62	
	cis-1,2-Dichloroethene	10	U
67-66-3	Chloroform	5	J
107-06-2	1,2-Dichloroethane	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
71-43-2	Benzene	10	U
79-01-6	Trichloroethene	10	U
78-87-5	1,2-Dichloropropane	10	U
75-27-4	Bromodichloromethane	10	U
110-75-8	2-Chloroethylvinyl ether	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
108-88-3	Toluene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
79-00-5	1,1,2-Trichloroethane	10	U
124-48-1	Dibromochloromethane	10	U
591-78-6	2-Hexanone	10	U
79-34-5	1,1,2,2-tetrachloroethane	10	U
127-18-4	Tetrachloroethene	2100	E
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
1330-20-7	m & p Xylenes	10	U
1330-20-7	o-Xylene	10	U
100-42-5	Styrene	10	U
75-25-2	Bromoform	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

INF7827-4

Lab Name: Toxikon Corp. Contract:

Lab Code: TOXIKON Case No.: SAS No.: SDG No.: 2

Matrix: (soil/water) WATER Lab Sample ID: 9703524.01

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: G1685.D

Level: (low/med) LOW Date Received: 03/31/97

% Moisture: not dec. Date Analyzed: 04/03/97

GC Column: 624 ID: 0.20 (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
95-50-1	1,2-Dichlorobenzene	10	U

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

INF7827-4DL

Lab Name: Toxikon Corp. Contract:

Lab Code: TOXIKON Case No.: SAS No.: SDG No.: 2

Matrix: (soil/water) WATER Lab Sample ID: 9703524.01DL

Sample wt/vol: 0.1 (g/ml) ML Lab File ID: G1693.D

Level: (low/med) LOW Date Received: 03/31/97

% Moisture: not dec. Date Analyzed: 04/03/97

GC Column: 624 ID: 0.20 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	1000	U
75-01-4	Vinyl Chloride	1000	U
74-83-9	Bromomethane	1000	U
75-00-3	Chloroethane	1000	U
67-64-1	Acetone	520	J
75-15-0	Carbon Disulfide	1000	U
75-09-2	Methylene Chloride	1000	U
75-35-4	1,1-Dichloroethene	1000	U
75-34-3	1,1-Dichloroethane	1000	U
156-60-5	trans-1,2-Dichloroethene	1000	U
108-05-4	Vinyl Acetate	1000	U
78-93-3	2-Butanone	1000	U
	cis-1,2-Dichloroethene	1000	U
67-66-3	Chloroform	1000	U
107-06-2	1,2-Dichloroethane	1000	U
71-55-6	1,1,1-Trichloroethane	1000	U
56-23-5	Carbon Tetrachloride	1000	U
71-43-2	Benzene	1000	U
79-01-6	Trichloroethene	1000	U
78-87-5	1,2-Dichloropropane	1000	U
75-27-4	Bromodichloromethane	1000	U
110-75-8	2-Chloroethylvinyl ether	1000	U
108-10-1	4-Methyl-2-Pentanone	1000	U
10061-01-5	cis-1,3-Dichloropropene	1000	U
108-88-3	Toluene	1000	U
10061-02-6	trans-1,3-Dichloropropene	1000	U
79-00-5	1,1,2-Trichloroethane	1000	U
124-48-1	Dibromochloromethane	1000	U
591-78-6	2-Hexanone	1000	U
79-34-5	1,1,2,2-tetrachloroethane	1000	U
127-18-4	Tetrachloroethene	12000	
108-90-7	Chlorobenzene	1000	U
100-41-4	Ethylbenzene	1000	U
1330-20-7	m & p Xylenes	1000	U
1330-20-7	o-Xylene	1000	U
100-42-5	Styrene	1000	U
75-25-2	Bromoform	1000	U
541-73-1	1,3-Dichlorobenzene	1000	U
106-46-7	1,4-Dichlorobenzene	1000	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

INF7827-4DL

Lab Name: Toxikon Corp. Contract:

Lab Code: TOXIKON Case No.: SAS No.: SDG No.: 2

Matrix: (soil/water) WATER Lab Sample ID: 9703524.01DL

Sample wt/vol: 0.1 (g/ml) ML Lab File ID: G1693.D

Level: (low/med) LOW Date Received: 03/31/97

% Moisture: not dec. Date Analyzed: 04/03/97

GC Column: 624 ID: 0.20 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
95-50-1	1,2-Dichlorobenzene	1000	U

000007

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EFF7827-4

Lab Name: Toxikon Corp. Contract:

Lab Code: TOXIKON Case No.: SAS No.: SDG No.: 2

Matrix: (soil/water) WATER Lab Sample ID: 9703524.02

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: G1688.D

Level: (low/med) LOW Date Received: 03/31/97

% Moisture: not dec. Date Analyzed: 04/03/97

GC Column: 624 ID: 0.20 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
75-01-4	Vinyl Chloride	10	U
74-83-9	Bromomethane	10	U
75-00-3	Chloroethane	10	U
67-64-1	Acetone	8	J
75-15-0	Carbon Disulfide	10	U
75-09-2	Methylene Chloride	2	J
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
156-60-5	trans-1,2-Dichloroethene	10	U
108-05-4	Vinyl Acetate	10	U
78-93-3	2-Butanone	10	U
	cis-1,2-Dichloroethene	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
71-43-2	Benzene	10	U
79-01-6	Trichloroethene	10	U
78-87-5	1,2-Dichloropropane	10	U
75-27-4	Bromodichloromethane	10	U
110-75-8	2-Chloroethylvinyl ether	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
108-88-3	Toluene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
79-00-5	1,1,2-Trichloroethane	10	U
124-48-1	Dibromochloromethane	10	U
591-78-6	2-Hexanone	10	U
79-34-5	1,1,2,2-tetrachloroethane	10	U
127-18-4	Tetrachloroethene	1	J
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
1330-20-7	m & p Xylenes	10	U
1330-20-7	o-Xylene	10	U
100-42-5	Styrene	10	U
75-25-2	Bromoform	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EFF7827-4

Lab Name: Toxikon Corp. Contract:

Lab Code: TOXIKON Case No.: SAS No.: SDG No.: 2

Matrix: (soil/water) WATER Lab Sample ID: 9703524.02

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: G1688.D

Level: (low/med) LOW Date Received: 03/31/97

% Moisture: not dec. Date Analyzed: 04/03/97

GC Column: 624 ID: 0.20 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
95-50-1	1,2-Dichlorobenzene	10	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EFF7827-5

Lab Name: Toxikon Corp. Contract:

Lab Code: TOXIKON Case No.: SAS No.: SDG No.: 2

Matrix: (soil/water) WATER Lab Sample ID: 9703524.03

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: G1689.D

Level: (low/med) LOW Date Received: 03/31/97

% Moisture: not dec. Date Analyzed: 04/03/97

GC Column: 624 ID: 0.20 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
75-01-4	Vinyl Chloride	10	U
74-83-9	Bromomethane	10	U
75-00-3	Chloroethane	10	U
67-64-1	Acetone	7	J
75-15-0	Carbon Disulfide	10	U
75-09-2	Methylene Chloride	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
156-60-5	trans-1,2-Dichloroethene	10	U
108-05-4	Vinyl Acetate	10	U
78-93-3	2-Butanone	2	J
	cis-1,2-Dichloroethene	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
71-43-2	Benzene	10	U
79-01-6	Trichloroethene	10	U
78-87-5	1,2-Dichloropropane	10	U
75-27-4	Bromodichloromethane	10	U
110-75-8	2-Chloroethylvinyl ether	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
108-88-3	Toluene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
79-00-5	1,1,2-Trichloroethane	10	U
124-48-1	Dibromochloromethane	10	U
591-78-6	2-Hexanone	10	U
79-34-5	1,1,2,2-tetrachloroethane	10	U
127-18-4	Tetrachloroethene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
1330-20-7	m & p Xylenes	10	U
1330-20-7	o-Xylene	10	U
100-42-5	Styrene	10	U
75-25-2	Bromoform	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EFF7827-5

Lab Name: Toxikon Corp. Contract:

Lab Code: TOXIKON Case No.: SAS No.: SDG No.: 2

Matrix: (soil/water) WATER Lab Sample ID: 9703524.03

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: G1689.D

Level: (low/med) LOW Date Received: 03/31/97

% Moisture: not dec. Date Analyzed: 04/03/97

GC Column: 624 ID: 0.20 (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
95-50-1	1,2-Dichlorobenzene	10	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EFF7827-6

Lab Name: Toxikon Corp. Contract:

Lab Code: TOXIKON Case No.: SAS No.: SDG No.: 2

Matrix: (soil/water) WATER Lab Sample ID: 9703524.04

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: G1690.D

Level: (low/med) LOW Date Received: 03/31/97

% Moisture: not dec. Date Analyzed: 04/03/97

GC Column: 624 ID: 0.20 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
75-01-4	Vinyl Chloride	10	U
74-83-9	Bromomethane	10	U
75-00-3	Chloroethane	10	U
67-64-1	Acetone	8	J
75-15-0	Carbon Disulfide	10	U
75-09-2	Methylene Chloride	2	J
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
156-60-5	trans-1,2-Dichloroethene	10	U
108-05-4	Vinyl Acetate	10	U
78-93-3	2-Butanone	1	J
	cis-1,2-Dichloroethene	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
71-43-2	Benzene	10	U
79-01-6	Trichloroethene	10	U
78-87-5	1,2-Dichloropropane	10	U
75-27-4	Bromodichloromethane	10	U
110-75-8	2-Chloroethylvinyl ether	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
108-88-3	Toluene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
79-00-5	1,1,2-Trichloroethane	10	U
124-48-1	Dibromochloromethane	10	U
591-78-6	2-Hexanone	10	U
79-34-5	1,1,2,2-tetrachloroethane	10	U
127-18-4	Tetrachloroethene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
1330-20-7	m & p Xylenes	10	U
1330-20-7	o-Xylene	10	U
100-42-5	Styrene	10	U
75-25-2	Bromoform	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

EFF7827-6

Lab Name: Toxikon Corp. Contract:

Lab Code: TOXIKON Case No.: SAS No.: SDG No.: 2

Matrix: (soil/water) WATER Lab Sample ID: 9703524.04

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: G1690.D

Level: (low/med) LOW Date Received: 03/31/97

% Moisture: not dec. Date Analyzed: 04/03/97

GC Column: 624 ID: 0.20 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
95-50-1	1,2-Dichlorobenzene	10	U

TOXIKON
15 Wiggins Ave., Bedford, MA 01730
Telephone (617) 275-3330
Fax (617) 275-7478

CHAIN OF CUSTODY RECORD

Roxy Cleaners, Wynantskill, NY

WORK ORDER #: 97-04-075
DUE DATE: 4-10-97

COMPANY: Environmental Waste Tech
ADDRESS: 1039 Chestnut ST, Newton Upper Falls, MA 02164
PHONE #: (617) 332-2877 FAX #: (617) 332 8712
P.O. #: 7827
PROJECT MANAGER: David Cunliffe
PROJECT ID/LOCATION: Roxy Cleaners

SAMPLE TYPE: 1. WASTEWATER 2. SOIL 3. SLUDGE 4. OIL 5. DRINKING WATER 6. WATER (GW/MW/SW) 7. OTHER (SPECIFY)
CONTAINER TYPE: P - PLASTIC G - GLASS V - VOA

ANALYSES

TOXIKON #	SAMPLE IDENTIFICATION	SAMPLE TYPE	CONTAINER SIZE	CONTAINER TYPE	CONTAINER #	SAMPLING DATE	SAMPLING TIME	PRESERVATIVE	8240 VOA	Total Pb + Fe	Total Suspended Solids	Total Dissolved Solids	8260 VOA							SPECIAL INSTRUCTIONS/ COMMENTS
1	EFF-7827-07	6	2x 40ml	V	2	4/4/97	1:00pm	HCL	X											
2	TNK-7827-01	6	2x 40ml	V	2	4/4/97	4:00pm	HCL	[crossed out]				X							ASP DELIV.
3	TNK-7827-02	6	500 mL	G	1 (DUP)	4/4/97	4:00pm	HNO3		X										
4	TNK-7827-03	6	1 liter	P	1	4/4/97	4:00pm				X	X								

SAMPLED BY: David W. Cunliffe — DATE: 4-4-97 TIME: 4:45 PM
QUOTATION #:
RELINQUISHED BY: David W. Cunliffe — DATE: 4-7-97 TIME: 8:30 Am
RECEIVED BY: J. Vagostino — DATE: 4-7-97 TIME: 8:30
RELINQUISHED BY: — DATE: - - TIME: - -
RECEIVED FOR LAB BY: — DATE: - - TIME: - -
METHOD OF SHIPMENT
COOLER TEMPERATURE

Three day TURNAROUND
☒ RUSH ..... BUSINESS DAY TURN AROUND
☐ ROUTINE

Sample disposal information
Are there any other known or suspected contaminants in these samples other than those listed above?
Yes ____ No ____ If Yes, 1st Known ____

000033

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE IDENTIFICATION AND ANALYTICAL REQUIREMENT SUMMARY

Customer Sample Code	Laboratory Sample Code	Analytical Requirements					
		*VOA GC/MS Method #	*BNA GC/MS Method #	*VOA GC Method #	*Pest PCBs Method #	*Metals	*Other
EFF-7827-07	9704075.01	8240					
TNK-7827-01	9704075.02	8260					
TNK-7827-02	9704075.03					Pb & Fe	
TNK-7827-03	9704075.04						TSS&TDS

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE PREPARATION AND ANALYSIS SUMMARY
VOLATILE (VOA)
ANAYLYSES

Laboratory Sample ID	Matrix	Date Collected	Date Rec'd at Lab	Date Extracted	Date Analyzed
9704075.01	WATER	4/4/97	4/7/97		4/10/97
9704075.02	WATER	4/4/97	4/7/97		4/7/97
9704075.03	WATER	4/4/97	4/7/97	8-Apr	4/9/97
9704075.04	WATER	4/4/97	4/7/97	8-Apr	4/8/97

Received: 04/07/97 Results by Sample

SAMPLE ID TNK-7827-02 SAMPLE # 03 FRACTIONS: A
Date & Time Collected 04/04/97 16:00:00 Category WATER

FE	0.086	PB	ND
mg/L	DL=0.020	mg/L	DL=0.050

SAMPLE ID TNK-7827-03 SAMPLE # 04 FRACTIONS: A
Date & Time Collected 04/04/97 16:00:00 Category WATER

TDS	333	TSS	ND
mg/L	DL=10.0	mg/L	DL=4.0

TOXIKON

QC SUMMARY - METALS

PROJECT : 9704075
MATRIX : WATER

SPIKE SAMPLE: 9704075.3

ANALYTE	METHOD BLANK	MS (% REC)	LCS (% REC)	DUPLICATE (% RPD)
Fe	ND	97	104	2.3
Pb	ND	97	100	0

ACCEPTANCE CRITERIA

ANALYTE	METHOD BLANK	MS (% REC)	LCS (% REC)	DUPLICATE (% RPD)
Ag	BDL	65 - 125	80 - 120	<25
Hg	BDL	75 - 125	80 - 120	<25
All Others	BDL	80 - 120	80 - 120	<25

TOXIKON

QA/QC REPORT

WORK ORDER: 9704075
MATRIX: WATER

PARAMETER	DUPLICATE PERCENT RPD	CONTROL LIMITS	MATRIX SPIKE PERCENT RECOVERY	CONTROL LIMITS
TDS	0	< 25	NA	80 - 120
TSS	0	< 25	NA	80 - 120

600006

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

TNK-7827-01

Lab Name: Toxikon Corp Contract:

Lab Code: TOXIKON Case No.: SAS No.: SDG No.: 3

Matrix: (soil/water) WATER Lab Sample ID: 9704075.02

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: G1747.D

Level: (low/med) LOW Date Received: 04/07/97

% Moisture: not dec. Date Analyzed: 04/07/97

GC Column: 624 ID: 0.20 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
	dichlorodifluoromethane	10	U
	chloromethane	10	U
	vinyl chloride	10	U
	bromomethane	10	U
	chloroethane	10	U
	trichlorofluoromethane	10	U
	1,1-dichloroethene	10	U
	methylene chloride	10	U
	methyl-tert-butyl-ether	10	U
	trans-1,2-dichloroethene	10	U
	1,1-dichloroethane	10	U
	2,2-dichloropropane	10	U
	cis-1,2-dichloroethene	10	U
	bromochloromethane	10	U
	chloroform	10	U
	1,1,1-trichloroethane	10	U
	carbon tetrachloride	10	U
	1,1-dichloropropene	10	U
	benzene	10	U
	1,2-dichloroethane	10	U
	trichloroethene	10	U
	1,2-dichloropropane	10	U
	dibromomethane	10	U
	bromodichloromethane	10	U
	cis-1,3-dichloropropene	10	U
	toluene	10	U
	trans-1,3-dichloropropene	10	U
	1,1,2-trichloroethane	10	U
	tetrachloroethene	10	U
	1,3-dichloropropane	10	U
	dibromochloromethane	10	U
	1,2-dibromoethane	10	U
	chlorobenzene	10	U
	1,1,1,2-tetrachloroethane	10	U
	ethylbenzene	10	U
	m,p-xylene	10	U
	o-xylene	10	U
	styrene	10	U
	bromoform	10	U

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

TNK-7827-01

Lab Name: Toxikon Corp Contract:

Lab Code: TOXIKON Case No.: SAS No.: SDG No.: 3

Matrix: (soil/water) WATER Lab Sample ID: 9704075.02

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: G1747.D

Level: (low/med) LOW Date Received: 04/07/97

% Moisture: not dec. Date Analyzed: 04/07/97

GC Column: 624 ID: 0.20 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
	isopropylbenzene	10	U
	bromobenzene	10	U
	1,1,2,2-tetrachloroethane	10	U
	1,2,3-trichloropropane	10	U
	n-propylbenzene	10	U
	2-chlorotoluene	10	U
	4-chlorotoluene	10	U
	1,3,5-trimethylbenzene	10	U
	tert-butylbenzene	10	U
	1,2,4-trimethylbenzene	10	U
	sec-butylbenzene	10	U
	1,3-dichlorobenzene	10	U
	4-isopropyltoluene	10	U
	1,4-dichlorobenzene	10	U
	1,2-dichlorobenzene	10	U
	n-butylbenzene	10	U
	1,2-dibromo-3-chloropropane	10	U
	1,2,4-trichlorobenzene	10	U
	hexachlorobutadiene	10	U
	naphthalene	10	U
	1,2,3-trichlorobenzene	10	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EFF-7827-07

Lab Name: Toxikon Corp. Contract:

Lab Code: TOXIKON Case No.: SAS No.: SDG No.: 3

Matrix: (soil/water) WATER Lab Sample ID: 9704075.01

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: G1836.D

Level: (low/med) LOW Date Received: 04/07/97

% Moisture: not dec. Date Analyzed: 04/10/97

GC Column: 624 ID: 0.20 (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
75-01-4	Vinyl Chloride	10	U
74-83-9	Bromomethane	10	U
75-00-3	Chloroethane	10	U
67-64-1	Acetone	13	B
75-15-0	Carbon Disulfide	10	U
75-09-2	Methylene Chloride	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
156-60-5	trans-1,2-Dichloroethene	10	U
108-05-4	Vinyl Acetate	10	U
78-93-3	2-Butanone	2	JB
	cis-1,2-Dichloroethene	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
71-43-2	Benzene	10	U
79-01-6	Trichloroethene	10	U
78-87-5	1,2-Dichloropropane	10	U
75-27-4	Bromodichloromethane	10	U
110-75-8	2-Chloroethylvinyl ether	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
108-88-3	Toluene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
79-00-5	1,1,2-Trichloroethane	10	U
124-48-1	Dibromochloromethane	10	U
591-78-6	2-Hexanone	10	U
79-34-5	1,1,2,2-tetrachloroethane	10	U
127-18-4	Tetrachloroethene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
1330-20-7	m & p Xylenes	10	U
1330-20-7	o-Xylene	10	U
100-42-5	Styrene	10	U
75-25-2	Bromoform	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EFF-7827-07

Lab Name: Toxikon Corp. Contract:

Lab Code: TOXIKON Case No.: SAS No.: SDG No.: 3

Matrix: (soil/water) WATER Lab Sample ID: 9704075.01

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: G1836.D

Level: (low/med) LOW Date Received: 04/07/97

% Moisture: not dec. Date Analyzed: 04/10/97

GC Column: 624 ID: 0.20 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
95-50-1	1,2-Dichlorobenzene	10	U

TOXIKON

15 Wiggins Ave., Bedford, MA 01730
Telephone: (617) 275-3330
Fax: (617) 275-7478

CHAIN OF CUSTODY RECORD

Roxy Cleaners, Wynantskill, NY

WORK ORDER #: 97-04-214

DUE DATE : 4-22-97

COMPANY: EWT INC
ADDRESS: 1039 Chestnut ST
Newton Upper Falls, MA 02164
PHONE #: (617) 332-8877 FAX #: (617) 332-8712
P.O. #: 7827
PROJECT MANAGER: Dave Cunliffe / Steve Lanza
PROJECT ID/LOCATION: Roxy Cleaners / NYDEC

SAMPLE TYPE	CONTAINER TYPE
1. WASTEWATER	P - PLASTIC
2. SOIL	G - GLASS
3. SLUDGE	V - VOA
4. OIL	
5. DRINKING WATER	
6. WATER (GW/MW/SW)	
7. OTHER (SPECIFY	

TOXIKON #	SAMPLE IDENTIFICATION	SAMPLE TYPE	CONTAINER SIZE	CONTAINER TYPE	CONTAINER #	SAMPLING DATE	SAMPLING TIME	PRESERVATIVE	8260 + Styrene	TOTAL Pb + Fe	TOTAL Suspended Solids	TOTAL Dissolved Solids	SPECIAL INSTRUCTIONS/ COMMENTS
1	EFF-7827-08	W	40 ml	V	2	4/16/97	12:05 pm	HCL	X				ASP
2	EFF-7827-09	W	1 liter	G	1	4/16/97	12:05 pm	HNO_3		X			Project
3	EFF-7827-10	W	1 liter	G	1	4/16/97	12:05 pm				X	X	

Please FAX Results 617-332-8712

000001

SAMPLED BY: D.W. Cunliffe
DATE: 4 - 16 - 97
TIME: 12 : 05 pm

RELINQUISHED BY: D.W. Cunliffe
DATE: 4 - 17 - 97
TIME: 09 - 20 - 00

RELINQUISHED BY:
DATE: - -
TIME: - -

METHOD OF SHIPMENT

QUOTATION #: 97-04-127JM

RECEIVED BY:
DATE: 4 - 17 - 97
TIME: 09 - 20 - 00

RECEIVED FOR LAB BY:
DATE: - -
TIME: - -

COOLER TEMPERATURE 4.6°C

Three day turnaround

☒ RUSH ..... BUSINESS DAY TURN AROUND
☐ ROUTINE

Sample disposal information

Are there any other known or suspected contaminants in these samples other than those listed above?

Yes ____ No ✓ If Yes, 1st Known ____

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE IDENTIFICATION AND ANALYTICAL REQUIREMENT SUMMARY

Customer Sample Code	Laboratory Sample Code	Analytical Requirements					
		*VOA GC/MS Method #	*BNA GC/MS Method #	*VOA GC Method #	*Pest PCBs Method #	*Metals	*Other
EFF-7827-08	9704314.01	8260					
EFF-7827-09	9704314.02					Pb & Fe	
EFF-7827-10	9704314.03						TSS&TDS

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE PREPARATION AND ANALYSIS SUMMARY
VOLATILE (VOA)
ANAYLYSES

Laboratory Sample ID	Matrix	Date Collected	Date Rec'd at Lab	Date Extracted	Date Analyzed
9704314.01	WATER	4/16/97	4/17/97		4/23/97
9704314.02	WATER	4/16/97	4/17/97		4/18/97
9704314.03	WATER	4/16/97	4/17/97	4/16/97	4/16/97

SAMPLE ID EFF-7827-09 SAMPLE # 02 FRACTIONS: A
Date & Time Collected 04/16/97 12:05:00 Category WATER

FE	ND	PB	ND
mg/L	DL=0.020	mg/L	DL=0.050

SAMPLE ID EFF-7827-10 SAMPLE # 03 FRACTIONS: A
Date & Time Collected 04/16/97 12:05:00 Category WATER

TDS	372	TSS	ND
mg/L	DL=10.0	mg/L	DL=4.0

TOXIKON

QC SUMMARY - METALS

PROJECT : 9704314
MATRIX : WATER

SPIKE SAMPLE: 9704280.2

ANALYTE	METHOD BLANK	MS (% REC)	LCS (% REC)	DUPLICATE (% RPD)
Fe	ND	89	109	17
Pb	ND	111	110	0

ACCEPTANCE CRITERIA

ANALYTE	METHOD BLANK	MS (% REC)	LCS (% REC)	DUPLICATE (% RPD)
Ag	BDL	65 - 125	80 - 120	<25
Hg	BDL	75 - 125	80 - 120	<25
All Others	BDL	80 - 120	80 - 120	<25

TOXIKON

QA/QC REPORT

WORK ORDER: 9704314
MATRIX: WATER

PARAMETER	DUPLICATE PERCENT RPD	CONTROL LIMITS	MATRIX SPIKE PERCENT RECOVERY	CONTROL LIMITS
TSS	0	< 25	NA	80 - 120
TDS	1.6	< 25	NA	80 - 120

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EFF-7827-08

Lab Name: Toxikon Corp Contract:

Lab Code: TOXIKON Case No.: SAS No.: SDG No.: 4

Matrix: (soil/water) WATER Lab Sample ID: 9704314.1

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: B0358.D

Level: (low/med) LOW Date Received: 04/17/97

% Moisture: not dec. Date Analyzed: 04/23/97

GC Column: RTX-VO ID: 0.53 (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
	dichlorodifluoromethane	10	U
	chloromethane	10	U
	vinyl chloride	10	U
	bromomethane	10	U
	chloroethane	10	U
	trichlorofluoromethane	10	U
	1,1-dichloroethene	10	U
	methylene chloride	10	U
	methyl-tert-butyl-ether	10	U
	trans-1,2-dichloroethene	10	U
	1,1-dichloroethane	10	U
	2,2-dichloropropane	10	U
	cis-1,2-dichloroethene	10	U
	bromochloromethane	10	U
	chloroform	10	U
	1,1,1-trichloroethane	10	U
	carbon tetrachloride	10	U
	1,1-dichloropropene	10	U
	benzene	10	U
	1,2-dichloroethane	10	U
	trichloroethene	10	U
	1,2-dichloropropane	10	U
	dibromomethane	10	U
	bromodichloromethane	10	U
	cis-1,3-dichloropropene	10	U
	toluene	10	U
	trans-1,3-dichloropropene	10	U
	1,1,2-trichloroethane	10	U
	tetrachloroethene	8	J
	1,3-dichloropropane	10	U
	dibromochloromethane	10	U
	1,2-dibromoethane	10	U
	chlorobenzene	10	U
	1,1,1,2-tetrachloroethane	10	U
	ethylbenzene	10	U
	m,p-xylene	10	U
	o-xylene	10	U
	styrene	10	U
	bromoform	10	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EFF-7827-08

Lab Name: Toxikon Corp Contract:

Lab Code: TOXIKON Case No.: SAS No.: SDG No.: 4

Matrix: (soil/water) WATER Lab Sample ID: 9704314.1

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: B0358.D

Level: (low/med) LOW Date Received: 04/17/97

% Moisture: not dec. Date Analyzed: 04/23/97

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) UG/L Q

	isopropylbenzene	1	J
	bromobenzene	10	U
	1,1,2,2-tetrachloroethane	10	U
	1,2,3-trichloropropane	10	U
	n-propylbenzene	10	U
	2-chlorotoluene	10	U
	4-chlorotoluene	10	U
	1,3,5-trimethylbenzene	10	U
	tert-butylbenzene	10	U
	1,2,4-trimethylbenzene	10	U
	sec-butylbenzene	10	U
	1,3-dichlorobenzene	10	U
	4-isopropyltoluene	10	U
	1,4-dichlorobenzene	10	U
	1,2-dichlorobenzene	10	U
	n-butylbenzene	10	U
	1,2-dibromo-3-chloropropane	10	U
	1,2,4-trichlorobenzene	10	U
	hexachlorobutadiene	10	U
	naphthalene	10	U
	1,2,3-trichlorobenzene	10	U

15 Wiggins Ave., Bedford, MA 01730
Telephone: (617) 275-3330
Fax: (617) 275-7478

CHAIN OF CUSTODY RECORD

WORK ORDER #: 97-04-45

DUE DATE : 5-7-97

COMPANY: EVT Inc
ADDRESS: 1039 Chestnut St
Newton MA 02164
PHONE #: (617) 332-1877 FAX #: (617) 332-8712
P.O. #: 7827
PROJECT MANAGER: Steve Chandler
PROJECT ID/LOCATION: Roxy Cleaners - NYDEC

SAMPLE TYPE	CONTAINER TYPE
1. WASTEWATER	P - PLASTIC
2. SOIL	G - GLASS
3. SLUDGE	V - VOA
4. OIL	
5. DRINKING WATER	
6. WATER (GW/MW/SW)	
7. OTHER (SPECIFY	

TOXIKON #	SAMPLE IDENTIFICATION	SAMPLE TYPE	CONTAINER SIZE	CONTAINER TYPE	CONTAINER #	SAMPLING DATE	SAMPLING TIME	PRESERVATIVE	8260 + STYRENE	Total Pb + Fe	Total Suspended Solids	Total Dissolved Solids	No Preservative	SPECIAL INSTRUCTIONS/ COMMENTS
1	EFF-7827-11	MW	40ml 1L	6 6	2 2	23-Apr-97	11:40	HCL HNO3 (Metals)	X	X	X	X		
2	INF-7827-RW1-001	MW	40ml	6	2		11:35	HCL	X					ASP DELIV
3	Inf-7827-RW2-001	MW	40ml	6	2		11:37	HCL	X					
4	Inf-7827-RW3-001	MW	40ml	6	2		11:34	HCL	X					

Please fax Results 617-332-2877

000000

SAMPLED BY: Steve Chandler
DATE: 23 - Apr -97
TIME: 11 - 40 - AM

RELINQUISHED BY:
DATE: 4 - 24 - 97
TIME: 16 - 45 - 00

RELINQUISHED BY:
DATE: - -
TIME: - -

METHOD OF SHIPMENT

QUOTATION #:

RECEIVED BY:
DATE: 4 - 25 - 97
TIME: 16 - 45 - 00

RECEIVED FOR LAB BY:
DATE: - -
TIME: - -

COOLER TEMPERATURE

☐ RUSH ..... BUSINESS DAY TURN AROUND
☐ ROUTINE

Sample disposal information

Are there any other known or suspected contaminants in these samples other than those listed above?
Yes ____ No ____ If Yes, 1st Known _____

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE IDENTIFICATION AND ANALYTICAL REQUIREMENT SUMMARY

Customer Sample Code	Laboratory Sample Code	Analytical Requirements					
		*VOA GC/MS Method #	*BNA GC/MS Method #	*VOA GC Method #	*Pest PCBs Method #	*Metals	*Other
EFF7827-11	9704452.01	8260				Pb&Fe	TSS&TDS
NF7827-RW1-00	9704452.02	8260					
NF7827-RW2-00	9704452.03	8260					
NF7827-RW3-00	9704452.04	8260					

000001

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE PREPARATION AND ANALYSIS SUMMARY
VOLATILE (VOA)
ANAYLYSES

Laboratory Sample ID	Matrix	Date Collected	Date Rec'd at Lab	Date Extracted	Date Analyzed
9704452.01	WATER	4/23/97	4/24/97	4/30/97	5/2/97
9704452.02	WATER	4/23/97	4/24/97		5/2/97
9704452.03	WATER	4/23/97	4/24/97		5/2/97
9704452.04	WATER	4/23/97	4/24/97		5/2/97

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EFF782711

Lab Name: Toxikon Corp. Contract:

Lab Code: TOXIKON Case No.: SAS No.: SDG No.: 5

Matrix: (soil/water) WATER Lab Sample ID: 9704452.01

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: G2301.D

Level: (low/med) LOW Date Received: 04/24/97

% Moisture: not dec. Date Analyzed: 05/02/97

GC Column: 624 ID: 0.20 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND (ug/L or ug/Kg)	UG/L	Q
	dichlorodifluoromethane	10	U
	chloromethane	10	U
	vinyl chloride	10	U
	bromomethane	10	U
	chloroethane	10	U
	trichlorofluoromethane	10	U
	1,1-dichloroethene	10	U
	methylene chloride	1	JB
	methyl-tert-butyl-ether	2	J
	trans-1,2-dichloroethene	10	U
	1,1-dichloroethane	10	U
	2,2-dichloropropane	10	U
	cis-1,2-dichloroethene	10	U
	bromochloromethane	10	U
	chloroform	10	U
	1,1,1-trichloroethane	10	U
	carbon tetrachloride	10	U
	1,1-dichloropropene	10	U
	benzene	10	U
	1,2-dichloroethane	10	U
	trichloroethene	10	U
	1,2-dichloropropane	10	U
	dibromomethane	10	U
	bromodichloromethane	10	U
	cis-1,3-dichloropropene	10	U
	toluene	10	U
	trans-1,3-dichloropropene	10	U
	1,1,2-trichloroethane	10	U
	tetrachloroethene	10	U
	1,3-dichloropropane	10	U
	dibromochloromethane	10	U
	1,2-dibromoethane	10	U
	chlorobenzene	10	U
	1,1,1,2-tetrachloroethane	10	U
	ethylbenzene	10	U
	m,p-xylene	10	U
	o-xylene	10	U
	styrene	10	U
	bromoform	10	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EFF782711

Lab Name: Toxikon Corp. Contract:

Lab Code: TOXIKON Case No.: SAS No.: SDG No.: 5

Matrix: (soil/water) WATER Lab Sample ID: 9704452.01

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: G2301.D

Level: (low/med) LOW Date Received: 04/24/97

% Moisture: not dec. Date Analyzed: 05/02/97

GC Column: 624 ID: 0.20 (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
	isopropylbenzene	10	U
	bromobenzene	10	U
	1,1,2,2-tetrachloroethane	10	U
	1,2,3-trichloropropane	10	U
	n-propylbenzene	10	U
	2-chlorotoluene	10	U
	4-chlorotoluene	10	U
	1,3,5-trimethylbenzene	10	U
	tert-butylbenzene	10	U
	1,2,4-trimethylbenzene	10	U
	sec-butylbenzene	10	U
	1,3-dichlorobenzene	10	U
	4-isopropyltoluene	10	U
	1,4-dichlorobenzene	10	U
	1,2-dichlorobenzene	10	U
	n-butylbenzene	10	U
	1,2-dibromo-3-chloropropane	10	U
	1,2,4-trichlorobenzene	10	U
	hexachlorobutadiene	10	U
	naphthalene	10	U
	1,2,3-trichlorobenzene	10	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

INF()RW1001

Lab Name: Toxikon Corp. Contract:

Lab Code: TOXIKON Case No.: SAS No.: SDG No.: 5

Matrix: (soil/water) WATER Lab Sample ID: 9704452.02

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: G2302.D

Level: (low/med) LOW Date Received: 04/24/97

% Moisture: not dec. Date Analyzed: 05/02/97

GC Column: 624 ID: 0.20 (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
	dichlorodifluoromethane	10	U
	chloromethane	10	U
	vinyl chloride	10	U
	bromomethane	10	U
	chloroethane	10	U
	trichlorofluoromethane	10	U
	1,1-dichloroethene	10	U
	methylene chloride	10	U
	methyl-tert-butyl-ether	6	J
	trans-1,2-dichloroethene	10	U
	1,1-dichloroethane	10	U
	2,2-dichloropropane	10	U
	cis-1,2-dichloroethene	29	
	bromochloromethane	10	U
	chloroform	10	U
	1,1,1-trichloroethane	10	U
	carbon tetrachloride	10	U
	1,1-dichloropropene	10	U
	benzene	10	U
	1,2-dichloroethane	10	U
	trichloroethene	17	B
	1,2-dichloropropane	10	U
	dibromomethane	10	U
	bromodichloromethane	10	U
	cis-1,3-dichloropropene	10	U
	toluene	10	U
	trans-1,3-dichloropropene	10	U
	1,1,2-trichloroethane	10	U
	tetrachloroethene	450	E
	1,3-dichloropropane	10	U
	dibromochloromethane	10	U
	1,2-dibromoethane	10	U
	chlorobenzene	10	U
	1,1,1,2-tetrachloroethane	10	U
	ethylbenzene	10	U
	m,p-xylene	10	U
	o-xylene	10	U
	styrene	10	U
	bromoform	10	U

010005

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

INF()RW1001

Lab Name: Toxikon Corp. Contract:

Lab Code: TOXIKON Case No.: SAS No.: SDG No.: 5

Matrix: (soil/water) WATER Lab Sample ID: 9704452.02

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: G2302.D

Level: (low/med) LOW Date Received: 04/24/97

% Moisture: not dec. Date Analyzed: 05/02/97

GC Column: 624 ID: 0.20 (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
	isopropylbenzene	10	U
	bromobenzene	10	U
	1,1,2,2-tetrachloroethane	10	U
	1,2,3-trichloropropane	10	U
	n-propylbenzene	10	U
	2-chlorotoluene	10	U
	4-chlorotoluene	10	U
	1,3,5-trimethylbenzene	10	U
	tert-butylbenzene	10	U
	1,2,4-trimethylbenzene	10	U
	sec-butylbenzene	10	U
	1,3-dichlorobenzene	10	U
	4-isopropyltoluene	10	U
	1,4-dichlorobenzene	10	U
	1,2-dichlorobenzene	10	U
	n-butylbenzene	10	U
	1,2-dibromo-3-chloropropane	10	U
	1,2,4-trichlorobenzene	10	U
	hexachlorobutadiene	10	U
	naphthalene	10	U
	1,2,3-trichlorobenzene	10	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

INF()RW1001DL

Lab Name: Toxikon Corp. Contract:

Lab Code: TOXIKON Case No.: SAS No.: SDG No.: 5

Matrix: (soil/water) WATER Lab Sample ID: 9704452.02DL

Sample wt/vol: 1.0 (g/ml) ML Lab File ID: G2314.D

Level: (low/med) LOW Date Received: 04/24/97

% Moisture: not dec. Date Analyzed: 05/05/97

GC Column: 624 ID: 0.20 (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
	dichlorodifluoromethane	50	U
	chloromethane	50	U
	vinyl chloride	50	U
	bromomethane	50	U
	chloroethane	50	U
	trichlorofluoromethane	50	U
	1,1-dichloroethene	50	U
	methylene chloride	50	U
	methyl-tert-butyl-ether	50	U
	trans-1,2-dichloroethene	50	U
	1,1-dichloroethane	50	U
	2,2-dichloropropane	50	U
	cis-1,2-dichloroethene	22	J
	bromochloromethane	50	U
	chloroform	50	U
	1,1,1-trichloroethane	50	U
	carbon tetrachloride	50	U
	1,1-dichloropropene	50	U
	benzene	50	U
	1,2-dichloroethane	50	U
	trichloroethene	15	J
	1,2-dichloropropane	50	U
	dibromomethane	50	U
	bromodichloromethane	50	U
	cis-1,3-dichloropropene	50	U
	toluene	50	U
	trans-1,3-dichloropropene	50	U
	1,1,2-trichloroethane	50	U
	tetrachloroethene	400	
	1,3-dichloropropane	50	U
	dibromochloromethane	50	U
	1,2-dibromoethane	50	U
	chlorobenzene	50	U
	1,1,1,2-tetrachloroethane	50	U
	ethylbenzene	50	U
	m,p-xylene	50	U
	o-xylene	50	U
	styrene	50	U
	bromoform	50	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

INF()RW1001DL

Lab Name: Toxikon Corp. Contract:

Lab Code: TOXIKON Case No.: SAS No.: SDG No.: 5

Matrix: (soil/water) WATER Lab Sample ID: 9704452.02DL

Sample wt/vol: 1.0 (g/ml) ML Lab File ID: G2314.D

Level: (low/med) LOW Date Received: 04/24/97

% Moisture: not dec. Date Analyzed: 05/05/97

GC Column: 624 ID: 0.20 (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
	isopropylbenzene	50	U
	bromobenzene	50	U
	1,1,2,2-tetrachloroethane	50	U
	1,2,3-trichloropropane	50	U
	n-propylbenzene	50	U
	2-chlorotoluene	50	U
	4-chlorotoluene	50	U
	1,3,5-trimethylbenzene	50	U
	tert-butylbenzene	50	U
	1,2,4-trimethylbenzene	50	U
	sec-butylbenzene	50	U
	1,3-dichlorobenzene	50	U
	4-isopropyltoluene	50	U
	1,4-dichlorobenzene	50	U
	1,2-dichlorobenzene	50	U
	n-butylbenzene	50	U
	1,2-dibromo-3-chloropropane	50	U
	1,2,4-trichlorobenzene	50	U
	hexachlorobutadiene	50	U
	naphthalene	50	U
	1,2,3-trichlorobenzene	50	U

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

INF()RW2001

Lab Name: Toxikon Corp. Contract:

Lab Code: TOXIKON Case No.: SAS No.: SDG No.: 5

Matrix: (soil/water) WATER Lab Sample ID: 9704452.03

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: G2303.D

Level: (low/med) LOW Date Received: 04/24/97

% Moisture: not dec. Date Analyzed: 05/02/97

GC Column: 624 ID: 0.20 (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
	dichlorodifluoromethane	10	U
	chloromethane	10	U
	vinyl chloride	10	U
	bromomethane	10	U
	chloroethane	10	U
	trichlorofluoromethane	10	U
	1,1-dichloroethene	10	U
	methylene chloride	10	U
	methyl-tert-butyl-ether	10	U
	trans-1,2-dichloroethene	10	U
	1,1-dichloroethane	10	U
	2,2-dichloropropane	10	U
	cis-1,2-dichloroethene	20	
	bromochloromethane	10	U
	chloroform	10	U
	1,1,1-trichloroethane	10	U
	carbon tetrachloride	10	U
	1,1-dichloropropene	10	U
	benzene	10	U
	1,2-dichloroethane	10	U
	trichloroethene	16	B
	1,2-dichloropropane	10	U
	dibromomethane	10	U
	bromodichloromethane	10	U
	cis-1,3-dichloropropene	10	U
	toluene	10	U
	trans-1,3-dichloropropene	10	U
	1,1,2-trichloroethane	10	U
	tetrachloroethene	920	E
	1,3-dichloropropane	10	U
	dibromochloromethane	10	U
	1,2-dibromoethane	10	U
	chlorobenzene	10	U
	1,1,1,2-tetrachloroethane	10	U
	ethylbenzene	10	U
	m,p-xylene	10	U
	o-xylene	10	U
	styrene	10	U
	bromoform	10	U

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

INF()RW2001

Lab Name: Toxikon Corp. Contract:

Lab Code: TOXIKON Case No.: SAS No.: SDG No.: 5

Matrix: (soil/water) WATER Lab Sample ID: 9704452.03

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: G2303.D

Level: (low/med) LOW Date Received: 04/24/97

% Moisture: not dec. Date Analyzed: 05/02/97

GC Column: 624 ID: 0.20 (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
	isopropylbenzene	10	U
	bromobenzene	10	U
	1,1,2,2-tetrachloroethane	10	U
	1,2,3-trichloropropane	10	U
	n-propylbenzene	10	U
	2-chlorotoluene	10	U
	4-chlorotoluene	10	U
	1,3,5-trimethylbenzene	2	J
	tert-butylbenzene	10	U
	1,2,4-trimethylbenzene	7	J
	sec-butylbenzene	10	U
	1,3-dichlorobenzene	10	U
	4-isopropyltoluene	10	U
	1,4-dichlorobenzene	10	U
	1,2-dichlorobenzene	10	U
	n-butylbenzene	10	U
	1,2-dibromo-3-chloropropane	10	U
	1,2,4-trichlorobenzene	10	U
	hexachlorobutadiene	10	U
	naphthalene	10	U
	1,2,3-trichlorobenzene	10	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

INF()RW2001DL

Lab Name: Toxikon Corp. Contract:

Lab Code: TOXIKON Case No.: SAS No.: SDG No.: 5

Matrix: (soil/water) WATER Lab Sample ID: 9704452.03DL

Sample wt/vol: 0.5 (g/ml) ML Lab File ID: G2315.D

Level: (low/med) LOW Date Received: 04/24/97

% Moisture: not dec. Date Analyzed: 05/05/97

GC Column: 624 ID: 0.20 (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
	dichlorodifluoromethane	100	U
	chloromethane	100	U
	vinyl chloride	100	U
	bromomethane	100	U
	chloroethane	100	U
	trichlorofluoromethane	100	U
	1,1-dichloroethene	100	U
	methylene chloride	100	U
	methyl-tert-butyl-ether	100	U
	trans-1,2-dichloroethene	100	U
	1,1-dichloroethane	100	U
	2,2-dichloropropane	100	U
	cis-1,2-dichloroethene	16	J
	bromochloromethane	100	U
	chloroform	100	U
	1,1,1-trichloroethane	100	U
	carbon tetrachloride	100	U
	1,1-dichloropropene	100	U
	benzene	100	U
	1,2-dichloroethane	100	U
	trichloroethene	15	J
	1,2-dichloropropane	100	U
	dibromomethane	100	U
	bromodichloromethane	100	U
	cis-1,3-dichloropropene	100	U
	toluene	100	U
	trans-1,3-dichloropropene	100	U
	1,1,2-trichloroethane	100	U
	tetrachloroethene	860	
	1,3-dichloropropane	100	U
	dibromochloromethane	100	U
	1,2-dibromoethane	100	U
	chlorobenzene	100	U
	1,1,1,2-tetrachloroethane	100	U
	ethylbenzene	100	U
	m,p-xylene	100	U
	o-xylene	100	U
	styrene	100	U
	bromoform	100	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

INF()RW2001DL

Lab Name: Toxikon Corp. Contract:

Lab Code: TOXIKON Case No.: SAS No.: SDG No.: 5

Matrix: (soil/water) WATER Lab Sample ID: 9704452.03DL

Sample wt/vol: 0.5 (g/ml) ML Lab File ID: G2315.D

Level: (low/med) LOW Date Received: 04/24/97

% Moisture: not dec. Date Analyzed: 05/05/97

GC Column: 624 ID: 0.20 (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
	isopropylbenzene	100	U
	bromobenzene	100	U
	1,1,2,2-tetrachloroethane	100	U
	1,2,3-trichloropropane	100	U
	n-propylbenzene	100	U
	2-chlorotoluene	100	U
	4-chlorotoluene	100	U
	1,3,5-trimethylbenzene	100	U
	tert-butylbenzene	100	U
	1,2,4-trimethylbenzene	100	U
	sec-butylbenzene	100	U
	1,3-dichlorobenzene	100	U
	4-isopropyltoluene	100	U
	1,4-dichlorobenzene	100	U
	1,2-dichlorobenzene	100	U
	n-butylbenzene	100	U
	1,2-dibromo-3-chloropropane	100	U
	1,2,4-trichlorobenzene	100	U
	hexachlorobutadiene	100	U
	naphthalene	100	U
	1,2,3-trichlorobenzene	100	U

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

INF()RW3001

Lab Name: Toxikon Corp. Contract:

Lab Code: TOXIKON Case No.: SAS No.: SDG No.: 5

Matrix: (soil/water) WATER Lab Sample ID: 9704452.04

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: G2304.D

Level: (low/med) LOW Date Received: 04/24/97

% Moisture: not dec. Date Analyzed: 05/02/97

GC Column: 624 ID: 0.20 (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
	dichlorodifluoromethane	10	U
	chloromethane	10	U
	vinyl chloride	10	U
	bromomethane	10	U
	chloroethane	10	U
	trichlorofluoromethane	10	U
	1,1-dichloroethene	10	U
	methylene chloride	10	U
	methyl-tert-butyl-ether	4	J
	trans-1,2-dichloroethene	10	U
	1,1-dichloroethane	10	U
	2,2-dichloropropane	10	U
	cis-1,2-dichloroethene	23	
	bromochloromethane	10	U
	chloroform	10	U
	1,1,1-trichloroethane	10	U
	carbon tetrachloride	10	U
	1,1-dichloropropene	10	U
	benzene	10	U
	1,2-dichloroethane	10	U
	trichloroethene	10	U
	1,2-dichloropropane	10	U
	dibromomethane	10	U
	bromodichloromethane	10	U
	cis-1,3-dichloropropene	10	U
	toluene	10	U
	trans-1,3-dichloropropene	10	U
	1,1,2-trichloroethane	10	U
	tetrachloroethene	540	E
	1,3-dichloropropane	10	U
	dibromochloromethane	10	U
	1,2-dibromoethane	10	U
	chlorobenzene	10	U
	1,1,1,2-tetrachloroethane	10	U
	ethylbenzene	10	U
	m,p-xylene	10	U
	o-xylene	10	U
	styrene	10	U
	bromoform	10	U

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

INF()RW3001

Lab Name: Toxikon Corp. Contract:

Lab Code: TOXIKON Case No.: SAS No.: SDG No.: 5

Matrix: (soil/water) WATER Lab Sample ID: 9704452.04

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: G2304.D

Level: (low/med) LOW Date Received: 04/24/97

% Moisture: not dec. Date Analyzed: 05/02/97

GC Column: 624 ID: 0.20 (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
	isopropylbenzene	10	U
	bromobenzene	10	U
	1,1,2,2-tetrachloroethane	10	U
	1,2,3-trichloropropane	10	U
	n-propylbenzene	10	U
	2-chlorotoluene	10	U
	4-chlorotoluene	10	U
	1,3,5-trimethylbenzene	10	U
	tert-butylbenzene	10	U
	1,2,4-trimethylbenzene	2	J
	sec-butylbenzene	10	U
	1,3-dichlorobenzene	10	U
	4-isopropyltoluene	10	U
	1,4-dichlorobenzene	10	U
	1,2-dichlorobenzene	10	U
	n-butylbenzene	10	U
	1,2-dibromo-3-chloropropane	10	U
	1,2,4-trichlorobenzene	10	U
	hexachlorobutadiene	10	U
	naphthalene	10	U
	1,2,3-trichlorobenzene	10	U

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

INF()RW3001DL

Lab Name: Toxikon Corp. Contract:

Lab Code: TOXIKON Case No.: SAS No.: SDG No.: 5

Matrix: (soil/water) WATER Lab Sample ID: 9704452.04DL

Sample wt/vol: 1.0 (g/ml) ML Lab File ID: G2316.D

Level: (low/med) LOW Date Received: 04/24/97

% Moisture: not dec. Date Analyzed: 05/05/97

GC Column: 624 ID: 0.20 (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
	dichlorodifluoromethane	50	U
	chloromethane	50	U
	vinyl chloride	50	U
	bromomethane	50	U
	chloroethane	50	U
	trichlorofluoromethane	50	U
	1,1-dichloroethene	50	U
	methylene chloride	50	U
	methyl-tert-butyl-ether	50	U
	trans-1,2-dichloroethene	50	U
	1,1-dichloroethane	50	U
	2,2-dichloropropane	50	U
	cis-1,2-dichloroethene	19	J
	bromochloromethane	50	U
	chloroform	50	U
	1,1,1-trichloroethane	50	U
	carbon tetrachloride	50	U
	1,1-dichloropropene	50	U
	benzene	50	U
	1,2-dichloroethane	50	U
	trichloroethene	50	U
	1,2-dichloropropane	50	U
	dibromomethane	50	U
	bromodichloromethane	50	U
	cis-1,3-dichloropropene	50	U
	toluene	50	U
	trans-1,3-dichloropropene	50	U
	1,1,2-trichloroethane	50	U
	tetrachloroethene	[redacted]	
	1,3-dichloropropane	50	U
	dibromochloromethane	50	U
	1,2-dibromoethane	50	U
	chlorobenzene	50	U
	1,1,1,2-tetrachloroethane	50	U
	ethylbenzene	50	U
	m,p-xylene	50	U
	o-xylene	50	U
	styrene	50	U
	bromoform	50	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

INF()RW3001DL

Lab Name: Toxikon Corp. Contract:

Lab Code: TOXIKON Case No.: SAS No.: SDG No.: 5

Matrix: (soil/water) WATER Lab Sample ID: 9704452.04DL

Sample wt/vol: 1.0 (g/ml) ML Lab File ID: G2316.D

Level: (low/med) LOW Date Received: 04/24/97

% Moisture: not dec. Date Analyzed: 05/05/97

GC Column: 624 ID: 0.20 (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
	isopropylbenzene	50	U
	bromobenzene	50	U
	1,1,2,2-tetrachloroethane	50	U
	1,2,3-trichloropropane	50	U
	n-propylbenzene	50	U
	2-chlorotoluene	50	U
	4-chlorotoluene	50	U
	1,3,5-trimethylbenzene	50	U
	tert-butylbenzene	50	U
	1,2,4-trimethylbenzene	50	U
	sec-butylbenzene	50	U
	1,3-dichlorobenzene	50	U
	4-isopropyltoluene	50	U
	1,4-dichlorobenzene	50	U
	1,2-dichlorobenzene	50	U
	n-butylbenzene	50	U
	1,2-dibromo-3-chloropropane	50	U
	1,2,4-trichlorobenzene	50	U
	hexachlorobutadiene	50	U
	naphthalene	50	U
	1,2,3-trichlorobenzene	50	U

TOXIKON

QC SUMMARY - METALS

PROJECT : 9704452
MATRIX : WATER

SPIKE SAMPLE: 9704414.1

ANALYTE	METHOD BLANK	MS (% REC)	LCS (% REC)	DUPLICATE (% RPD)
Fe	ND	82	84	0
Pb	ND	85	84	0

ACCEPTANCE CRITERIA

ANALYTE	METHOD BLANK	MS (% REC)	LCS (% REC)	DUPLICATE (% RPD)
Ag	BDL	65 - 125	80 - 120	<25
Hg	BDL	75 - 125	80 - 120	<25
All Others	BDL	80 - 120	80 - 120	<25

SAMPLE ID EFF-7827-11 SAMPLE # 01 FRACTIONS: A
Date & Time Collected 04/23/97 11:40:00 Category WATER

FE	ND	PB	ND	TDS	360	TSS	ND
mg/L	DL=0.020	mg/L	DL=0.050	mg/L	DL=10.0	mg/L	DL=10.0

TOXIKON

QA/QC REPORT

WORK ORDER: 9704452
MATRIX: WATER

PARAMETER	DUPLICATE PERCENT RPD	CONTROL LIMITS	MATRIX SPIKE PERCENT RECOVERY	CONTROL LIMITS
TSS	8.7	< 25	NA	80 - 120
TDS	3.5	< 25	NA	80 - 120

000004

New York State Department of Health
Wadworth Center
Results of Weekly Start-Up Monitoring Examination

Location: Roxy Cleaners Groundwater Treatment System #0266330
Description: Roxy Air Stripper, 195 Main St., Wynantskill, *RW-1 INFLUENT*

Target Compound List	Detection Limit	Concentrations (MCG/L)									
		5/2/97	5/13/97	5/20/97	5/28/97	6/3/97	6/10/97	6/18/97	6/24/97	7/1/97	7/8/97
Chloromethane	< 50. MCG/L										
Bromomethane	< 50. MCG/L										
Vinyl Chloride	< 50. MCG/L										
Chloroethane	< 50. MCG/L										
Methylene Chloride (Dichloromethane)	< 50. MCG/L	9	17	8			13	12	8	7	5
Acetone	< 50. MCG/L							78	19	22	18
Carbon Disulfide	< 50. MCG/L										
1,1-Dichloroethene	< 50. MCG/L										
1,1-Dichloroethane	< 50. MCG/L										
Cis/Trans-1,2-Dichloroethene (Total)	< 50. MCG/L	36	46	48	44	43	39	55	47	26	49
Chloroform	< 50. MCG/L										
1,2-Dichloroethane	< 50. MCG/L										
2-Butanone (Methyl Ethyl Keytone)	< 50. MCG/L								9		
1,1,1-Trichloroethane	< 50. MCG/L										
Carbon Tetrachloride	< 50. MCG/L										
Bromodichloromethane	< 50. MCG/L										
1,2-Dichloropropane	< 50. MCG/L										
Cis-1,3 Dichloropropene	< 50. MCG/L										
Trichloroethene	< 50. MCG/L	18	24	23	21	22	20	28	22	2	28
Dibromochloromethane	< 50. MCG/L										
1,1,2-Trichloroethane	< 50. MCG/L							7	6		
Benzene	< 50. MCG/L										
Trans-1,3-Dichloropropene	< 50. MCG/L										
Bromoform	< 50. MCG/L										
4-Methyl-2-Pentatone (MIBK)	< 50. MCG/L										
2-Hexanone (Methyl Butyl Ketone)	< 50. MCG/L										
Tetrachloroethene	< 50. MCG/L	570	790	690	670	690	620	930	720	570	790
1,1,2,2-Tetrachloroethane	< 50. MCG/L										
Toluene	< 50. MCG/L									1	
Chlorobenzene	< 50. MCG/L										
Ethylbenzene	< 50. MCG/L										
Styrene	< 50. MCG/L										
Total Xylenes	< 50. MCG/L										
Data Qualifications		J,J,,B	BJ,J,J	BJ,J,J	J,J	J,J	BJ,J,J	BJ,BJ,J,J,J	BJ,BJ,J,BJ,J,J	BJ,BJ,J,BJ,J,J	BJ,BJ,J,J

Note: Data qualifications are in the order that they appear on the data sheets

J = Estimated Value B = Blank

New York State Department of Health
Wadworth Center
Results of Weekly Start-Up Monitoring Examination

Location: Roxy Cleaners Groundwater Treatment System #0266330
Description: Roxy Air Stripper, 195 Main St., Wynantskill, *RW-2 INFLUENT*

Target Compound List	Detection Limit	Concentration (MCG/L)									
		5/2/97	5/13/97	5/20/97	5/27/97	6/3/97	6/10/97	# 6/18/97	#6/24/97	# 7/1/97	# 7/8/97
Chloromethane	<100. MCG/L										
Bromomethane	<100. MCG/L										
Vinyl Chloride	<100. MCG/L										
Chloroethane	<100. MCG/L										
Methylene Chloride (Dichloromethane)	<100. MCG/L	9		18		28					
Acetone	<100. MCG/L					250					
Carbon Disulfide	<100. MCG/L										
1,1-Dichloroethene	<100. MCG/L										
1,1-Dichloroethane	<100. MCG/L										
Cis/Trans-1,2-Dichloroethene (Total)	<100. MCG/L		21	20	14	18	11				
Chloroform	<100. MCG/L										
1,2-Dichloroethane	<100. MCG/L										
2-Butanone (Methyl Ethyl Keytone)	<100. MCG/L										
1,1,1-Trichloroethane	<100. MCG/L										
Carbon Tetrachloride	<100. MCG/L										
Bromodichloromethane	<100. MCG/L										
1,2-Dichloropropane	<100. MCG/L										
Cis-1,3 Dichloropropene	<100. MCG/L										
Trichloroethene	<100. MCG/L	4	19	17	11	13	9				
Dibromochloromethane	<100. MCG/L										
1,1,2-Trichloroethane	<100. MCG/L										
Benzene	<100. MCG/L										
Trans-1,3-Dichloropropene	<100. MCG/L										
Bromoform	<100. MCG/L										
4-Methyl-2-Pentatone (MIBK)	<100. MCG/L										
2-Hexanone (Methyl Butyl Ketone)	<100. MCG/L										
Tetrachloroethene	<100. MCG/L	880	1400	1200	680	890	630				
1,1,2,2-Tetrachloroethane	<100. MCG/L										
Toluene	<100. MCG/L										
Chlorobenzene	<100. MCG/L										
Ethylbenzene	<100. MCG/L										
Styrene	<100. MCG/L										
Total Xylenes	<100. MCG/L										
Data Qualifications		J,J	J,J	BJ,J,J	J,J	J,J,J	J,J				

Note: Data qualifications are in the order that they appear on the data sheets

J = Estimated Value B = Blank

RW-2 Not Operating

New York State Department of Health
Wadworth Center
Results of Weekly Start-Up Monitoring Examination

Location: Roxy Cleaners Groundwater Treatment System #0266330
Description: Roxy Air Stripper, 195 Main St., Wynantskill, *RW-3 INFLUENT*

Target Compound List	Detection Limit	Concentration (MCG/L) 5/2/97	5/13/97	5/20/97	5/27/97	6/3/97	6/10/97	6/18/97	6/24/97	7/1/97	7/8/97
Chloromethane	< 50. MCG/L										
Bromomethane	< 50. MCG/L										
Vinyl Chloride	< 50. MCG/L										
Chloroethane	< 50. MCG/L										
Methylene Chloride (Dichloromethane)	< 50. MCG/L	9	15	8	13	29		7	8	6	5
Acetone	< 50. MCG/L							33	22	24	24
Carbon Disulfide	< 50. MCG/L										
1,1-Dichloroethene	< 50. MCG/L								0.6		
1,1-Dichloroethane	< 50. MCG/L										
Cis/Trans-1,2-Dichloroethene (Total)	< 50. MCG/L	28	29	29	29	24	23	23	21	23	28
Chloroform	< 50. MCG/L										
1,2-Dichloroethane	< 50. MCG/L										
2-Butanone (Methyl Ethyl Keytone)	< 50. MCG/L							6	4		
1,1,1-Trichloroethane	< 50. MCG/L										
Carbon Tetrachloride	< 50. MCG/L										
Bromodichloromethane	< 50. MCG/L										
1,2-Dichloropropane	< 50. MCG/L										
Cis-1,3 Dichloropropene	< 50. MCG/L										
Trichloroethene	< 50. MCG/L							2	1	2	3
Dibromochloromethane	< 50. MCG/L										
1,1,2-Trichloroethane	< 50. MCG/L							4			
Benzene	< 50. MCG/L										
Trans-1,3-Dichloropropene	< 50. MCG/L										
Bromoform	< 50. MCG/L										
4-Methyl-2-Pentatone (MIBK)	< 50. MCG/L										
2-Hexanone (Methyl Butyl Ketone)	< 50. MCG/L										
Tetrachloroethene	< 50. MCG/L	720	750	760	680	540	550	530	330	510	580
1,1,2,2-Tetrachloroethane	< 50. MCG/L										
Toluene	< 50. MCG/L									0.9	
Chlorobenzene	< 50. MCG/L										
Ethylbenzene	< 50. MCG/L										
Styrene	< 50. MCG/L										
Total Xylenes	< 50. MCG/L										
Data Qualifications		J,J	BJ,J	BJ,J	BJ,J	J,J	J	BJ,BJ,J,BJ,J,J	BJ,BJ,J,J,J,J	BJ,BJ,J,J,J,J	BJ,BJ,J,J

Note: Data qualifications are in the order that they appear on the data sheets

J = Estimated Value B = Blank

New York State Department of Health
Wadworth Center
Results of Weekly Start-Up Monitoring Examination

Location: Roxy Cleaners Groundwater Treatment System #0266330
Description: Roxy Air Stripper, 195 Main St., Wynantskill, *COMBINED*

Target Compound List	Detection Limit	Concentration (MCG/L)									
		5/2/97	5/13/97	5/20/97	5/27/97	6/3/97	6/10/97	6/18/97	6/24/97	7/1/97	7/8/97
Chloromethane	< 50. MCG/L										
Bromomethane	< 50. MCG/L										
Vinyl Chloride	< 50. MCG/L										
Chloroethane	< 50. MCG/L										
Methylene Chloride (Dichloromethane)	< 50. MCG/L			12	12	10		7	8	7	5
Acetone	< 50. MCG/L					84		31	30	24	16
Carbon Disulfide	< 50. MCG/L								0.5		
1,1-Dichloroethene	< 50. MCG/L										
1,1-Dichloroethane	< 50. MCG/L										
Cis/Trans-1,2-Dichloroethene (Total)	< 50. MCG/L	19	34	24	21	21	22	21	24	21	23
Chloroform	< 50. MCG/L										
1,2-Dichloroethane	< 50. MCG/L										
2-Butanone (Methyl Ethyl Ketone)	< 50. MCG/L							5			
1,1,1-Trichloroethane	< 50. MCG/L										
Carbon Tetrachloride	< 50. MCG/L										
Bromodichloromethane	< 50. MCG/L										
1,2-Dichloropropane	< 50. MCG/L										
Cis-1,3 Dichloropropene	< 50. MCG/L										
Trichloroethene	< 50. MCG/L	14	5	4	4	3	4	2	2	3	3
Dibromochloromethane	< 50. MCG/L										
1,1,2-Trichloroethane	< 50. MCG/L	25									
Benzene	< 50. MCG/L										
Trans-1,3-Dichloropropene	< 50. MCG/L										
Bromoform	< 50. MCG/L										
4-Methyl-2-Pentatone (MIBK)	< 50. MCG/L										
2-Hexanone (Methyl Butyl Ketone)	< 50. MCG/L										
Tetrachloroethene	< 50. MCG/L	760	960	630	580	550	630	610	370	440	480
1,1,2,2-Tetrachloroethane	< 50. MCG/L										
Toluene	< 50. MCG/L								0.6	0.6	0.8
Chlorobenzene	< 50. MCG/L										
Ethylbenzene	< 50. MCG/L										
Styrene	< 50. MCG/L										
Total Xylenes	< 50. MCG/L										
Data Qualifications		E	J,J	BJ,J,J	BJ,J,J	J,J,J	J,J	BJ,BJ,J,BJ,J	BJ,BJ,J,J,J	BJ,BJ,J,J,J	BJ,BJ,J,J,J

Note Data qualifications are in the order that they appear on the data sheets

J = Estimated Value B = Blank

Combined influent for 6/18,6/24, and 7/1 are for RW1 and RW3 only

New York State Department of Health
Wadworth Center
Results of Weekly Start-Up Monitoring Examination

Location: Roxy Cleaners Groundwater Treatment System #0266330
Description: Roxy Air Stripper, 195 Main St., Wynantskill, *EFFLUENT*

Target Compound List	Detection Limit	Concentration (MCG/L)									
		5/2/97	5/13/97	5/20/97	5/27/97	6/3/97	6/10/97	6/18/97	6/24/97	7/1/97	7/8/97
Chloromethane	<10. MCG/L										
Bromomethane	< 10. MCG/L										
Vinyl Chloride	<10. MCG/L										
Chloroethane	< 10. MCG/L										
Methylene Chloride (Dichloromethane)	<10. MCG/L	0.8		1	2			0.3	0.6	0.3	0.7
Acetone	< 10. MCG/L							2			
Carbon Disulfide	<10. MCG/L										
1,1-Dichloroethene	< 10. MCG/L										
1,1-Dichloroethane	<10. MCG/L										
Cis/Trans-1,2-Dichloroethene (Total)	< 10. MCG/L					0.4				0.2	
Chloroform	<10. MCG/L										
1,2-Dichloroethane	< 10. MCG/L										
2-Butanone (Methyl Ethyl Keytone)	<10. MCG/L										
1,1,1-Trichloroethane	< 10. MCG/L										
Carbon Tetrachloride	<10. MCG/L										
Bromodichloromethane	< 10. MCG/L										
1,2-Dichloropropane	<10. MCG/L										
Cis-1,3 Dichloropropene	< 10. MCG/L										
Trichloroethene	<10. MCG/L										
Dibromochloromethane	< 10. MCG/L										
1,1,2-Trichloroethane	<10. MCG/L										
Benzene	< 10. MCG/L										
Trans-1,3-Dichloropropene	<10. MCG/L										
Bromoform	< 10. MCG/L										
4-Methyl-2-Pentanone (MIBK)	<10. MCG/L										
2-Hexanone (Methyl Butyl Ketone)	< 10. MCG/L										
Tetrachloroethene	<10. MCG/L	0.9	1			0.5	0.7	0.3	0.6	0.5	0.4
1,1,2,2-Tetrachloroethane	< 10. MCG/L										
Toluene	<10. MCG/L							0.08			0.1
Chlorobenzene	< 10. MCG/L										
Ethylbenzene	<10. MCG/L										
Styrene	< 10. MCG/L										
Total Xylenes	<10. MCG/L										
Data Qualifications	MG/L	1	1	1	1	1	1	1	1	1	1
Total Dissolved Solids	MG/L	376	378	370	384	379	390	366	368	380	358
Iron, (Total)	MCG/L	18	13	72	33	14	46	28	10	10	12
Lead (Total)	MCG/L	20	20	20	20	20	20	20	20	20	20
Data Qualifications		J,J,J,J	J	BJ	BJ	J,J	J	BJ,BJ,J,J	BJ,J	BJ,J,J	BJ,J,J

Note: Data qualifications are in the order that they appear on the data sheets.

J = Estimated Value B = Blank

TSS < 1on 5/2,5/13,5/20, 5/27, 6/3, 6/10, 7/1,7/8

LEAD < 20 on 5/2, 5/13, 5/20, 5/27, 6/3, 6/10, 6/24, 7/1,7/8

Effluent for 6/18, 6/24, 7/1 and 7/8 are for RW1 and RW3 only

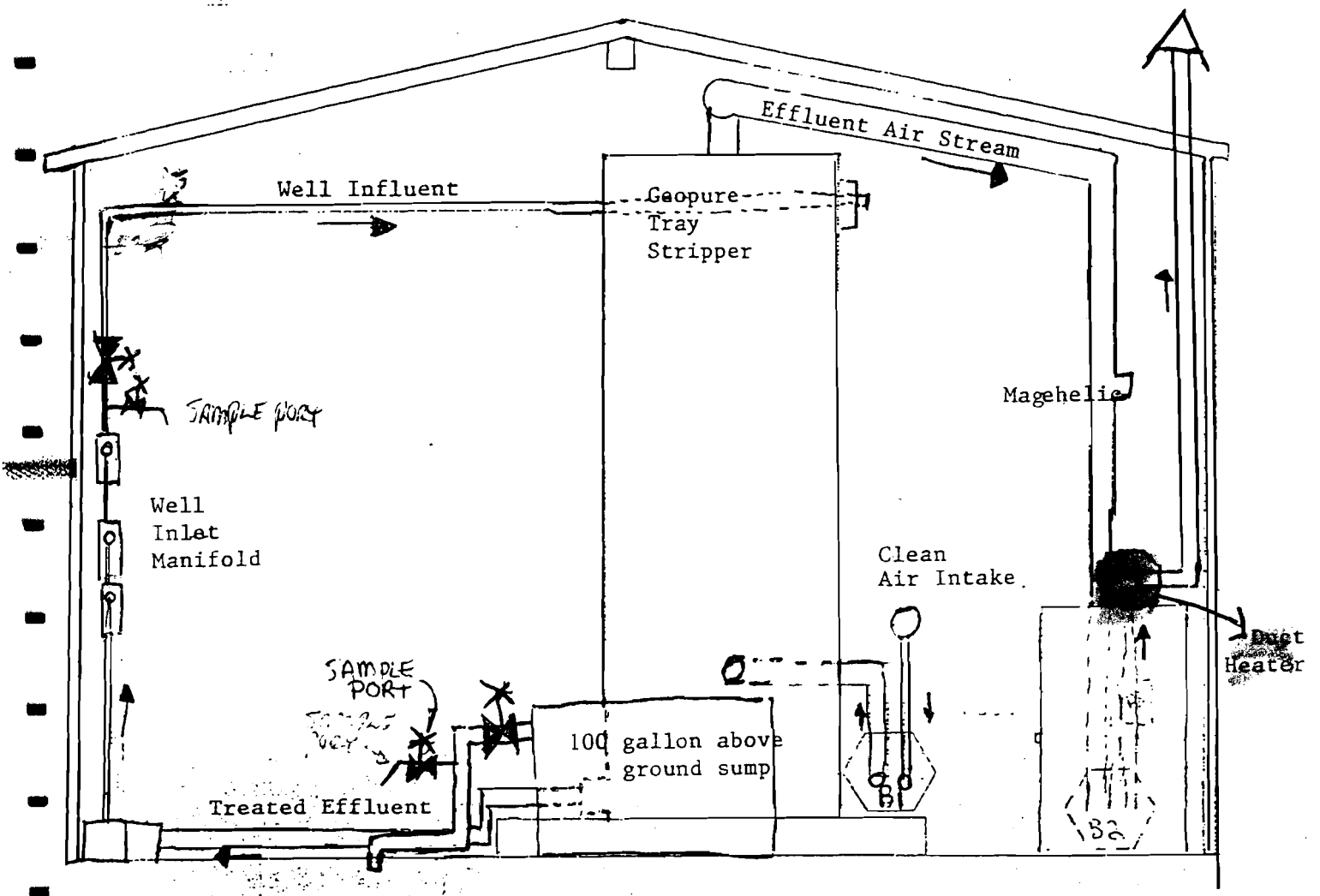
APPENDIX C

Record Drawings

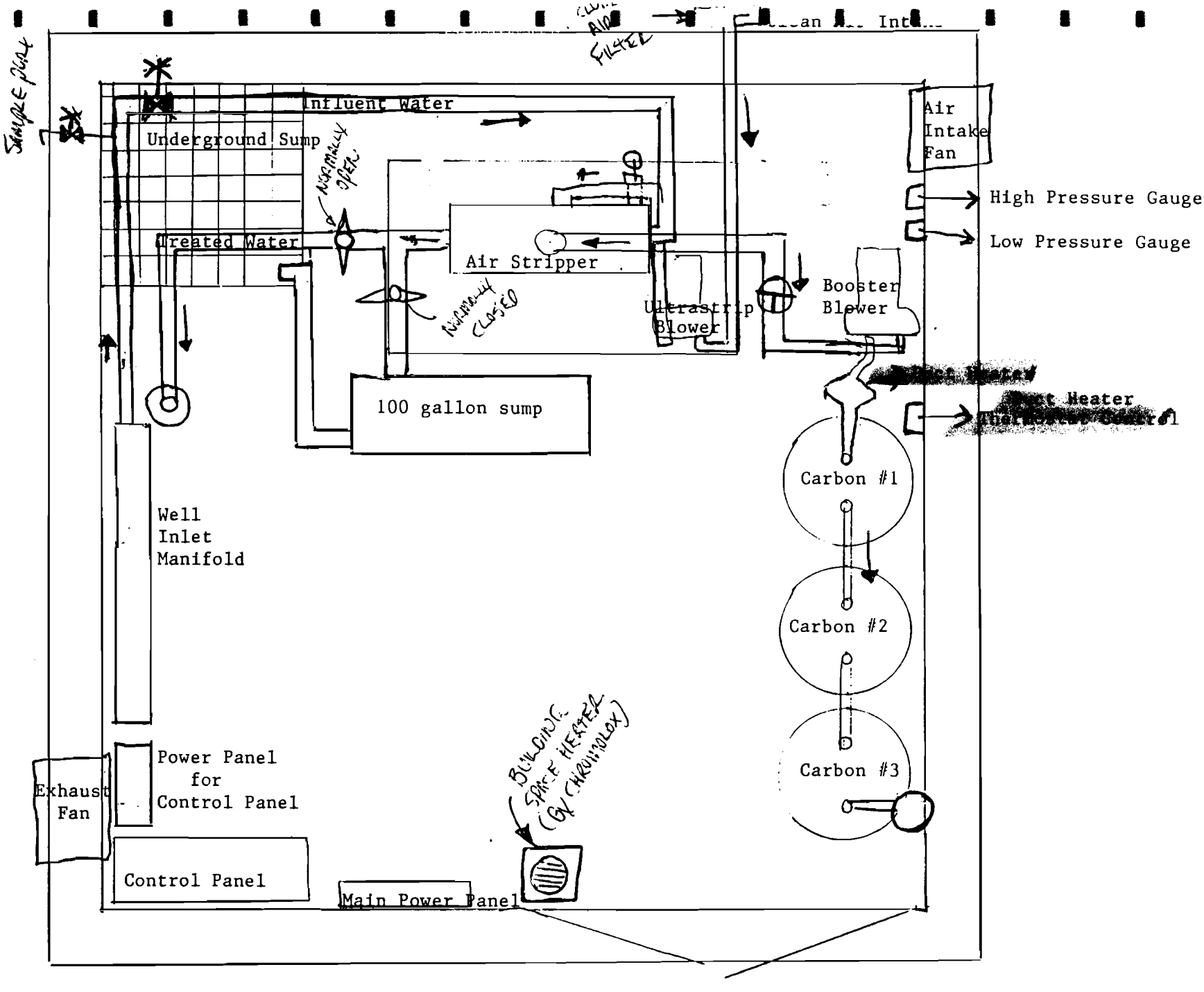
CONTRACTOR'S AS-BUILT SKETCHES

ROXY CLEANERS GROUNDWATER REMEDIATION SYSTEM

Front View Plan



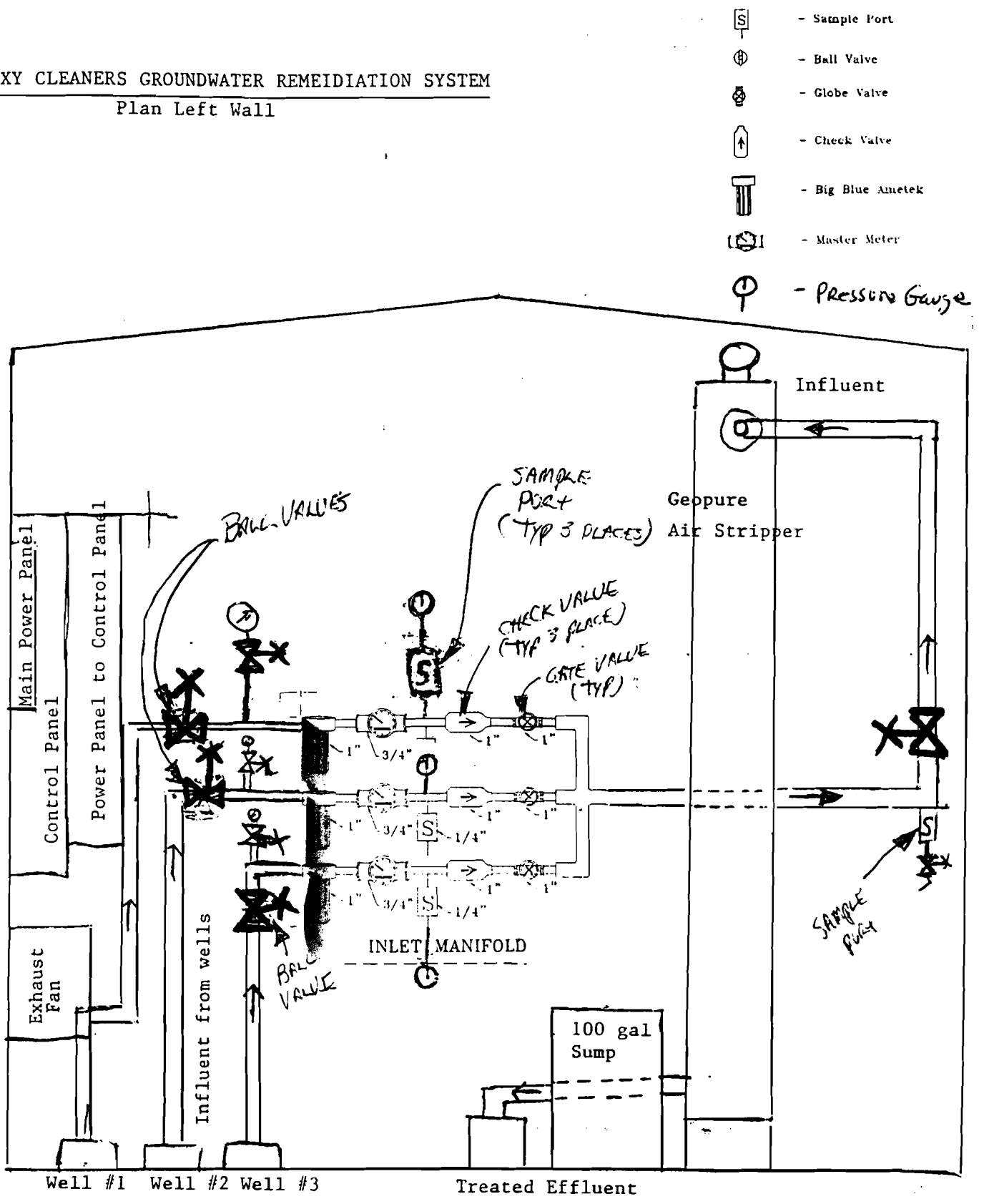
ENVIRONMENTAL WASTE TECHNOLOGY, INC.
1039 CHESTNUT STREET - P.O. BOX 38 - NEWTON UPPER FALLS, MA 02164 - 617 332-2877



ROXY CLEANERS GROUNDWATER REMEDIATION SYSTEM
Top View Plan

ROXY CLEANERS GROUNDWATER REMEIDIATION SYSTEM

Plan Left Wall



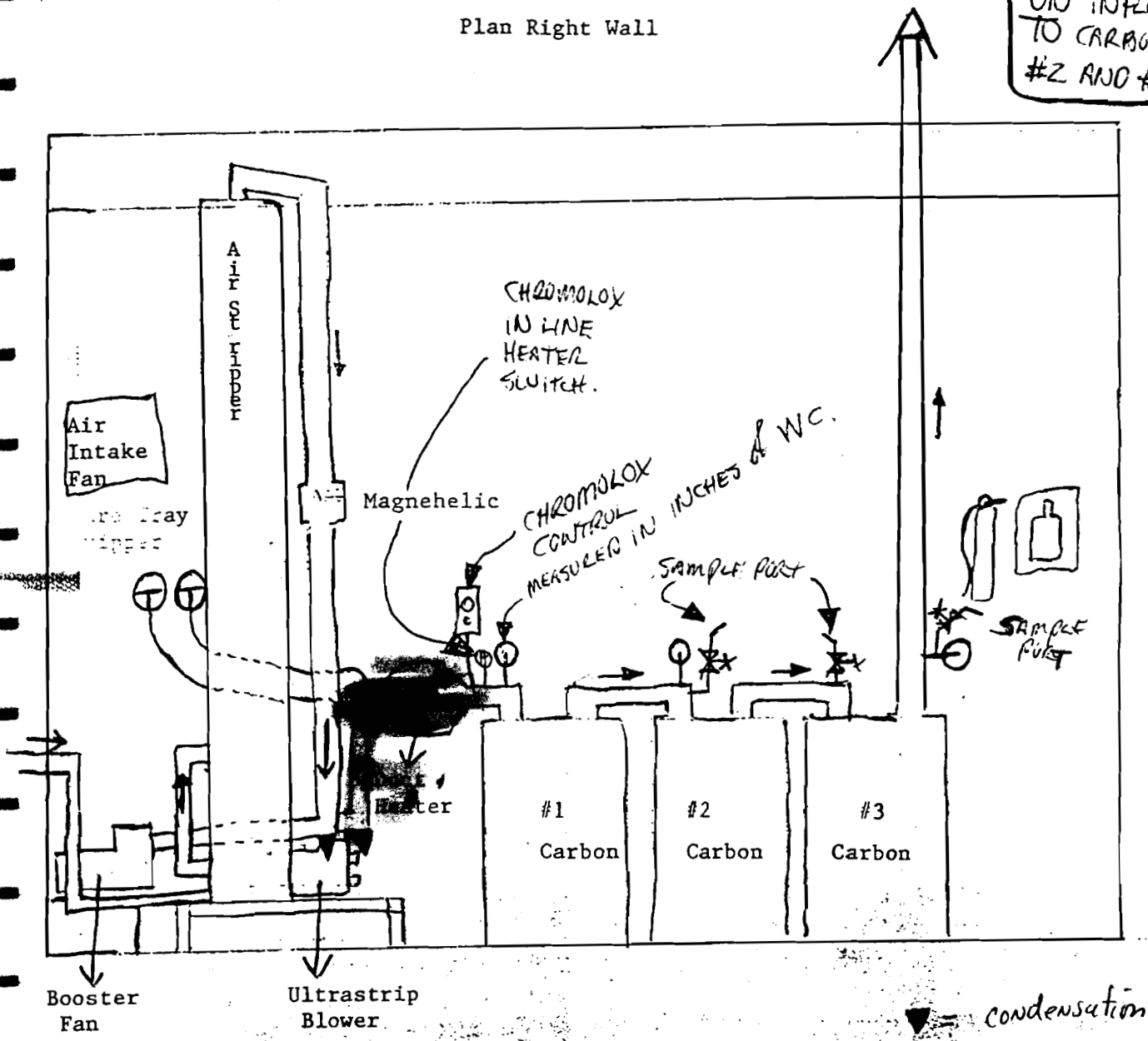
ENVIRONMENTAL WASTE TECHNOLOGY, INC.

1039 CHESTNUT STREET • P.O. BOX 38 • NEWTON UPPER FALLS, MA 02164 • 617 332-2877

ROXY CLEANERS GROUNDWATER REMEDIATION SYSTEM

Plan Right Wall

SAMPLE PORTS ON INFLUENT TO CARBON DRUM #2 AND #3



PRESSURE GAUGES ON CARBON DRUM #1, #2 AND EFFLUENT PIPE

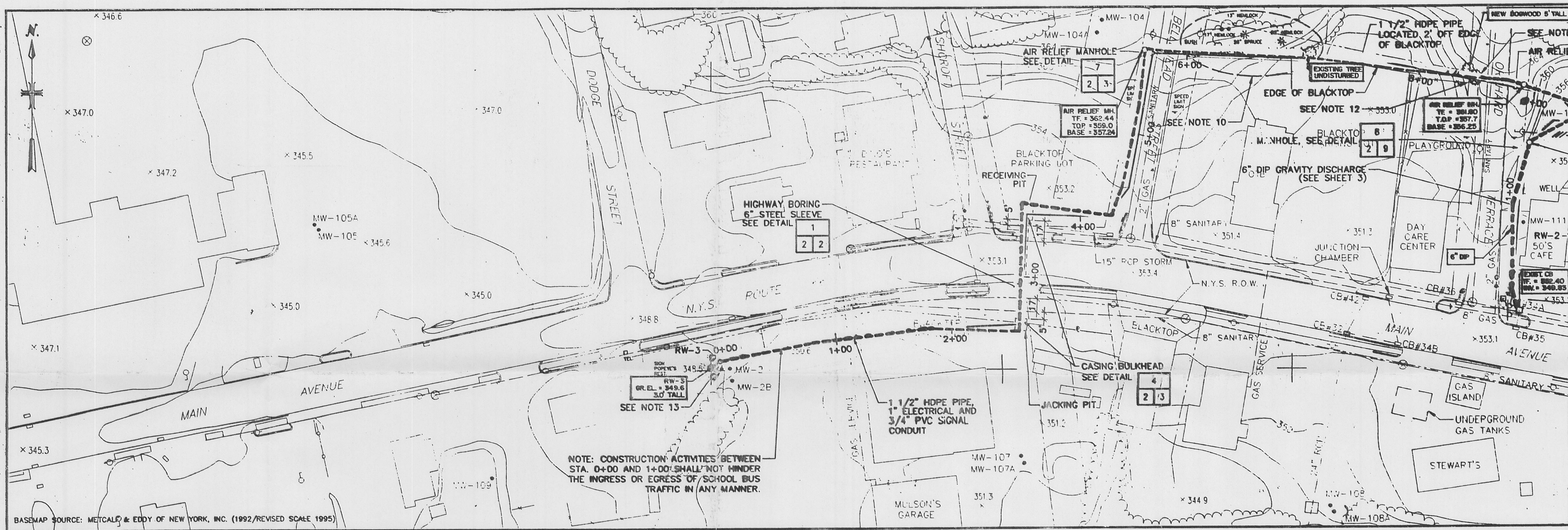
▼ = condensation trap

= Pressure Gauges

= Thermostat Control

= High + Low pressure Gauges

ENVIRONMENTAL WASTE TECHNOLOGY, INC.
1039 CHESTNUT STREET · P.O. BOX 38 · NEWTON UPPER FALLS, MA 02164 · 617 332-2877



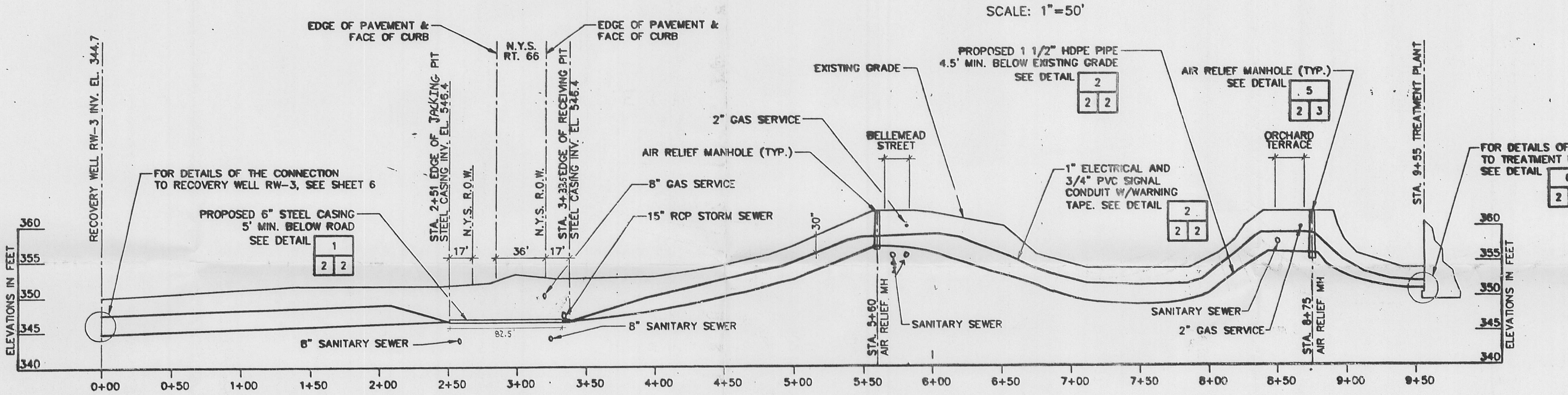
RECORD DRAWING

1. AS-BUILT STRUCTURE INVERTS, ELEVATIONS AND LOCATIONS WERE OBTAINED FROM FIELD SURVEYS PERFORMED ON APRIL 25, 29 and 30, 1997. LOCATIONS OF UNDERGROUND UTILITIES ARE BASED ON ABOVE GROUND EVIDENCE.
2. ALL FIELD INFORMATION HAS BEEN COMPILED AND SHOWN ON THE PLAN SECTION OF THIS DRAWING.
3. THE SEAL AND SIGNATURE OF THE PROFESSIONAL LAND SURVEYOR HEREON IS ONLY FOR THE AS-BUILT INFORMATION OBTAINED BY EDWARD W. BOUTELLE AND SON.

PREPARED BY EDWARD W. BOUTELLE AND SON, A DIVISION OF J. KENNETH FRASER AND ASSOCIATES, PE,LS,LA, P.C., 423 KENWOOD AVENUE, DELMAR, NY 12054. Phone: (518) 439-9981

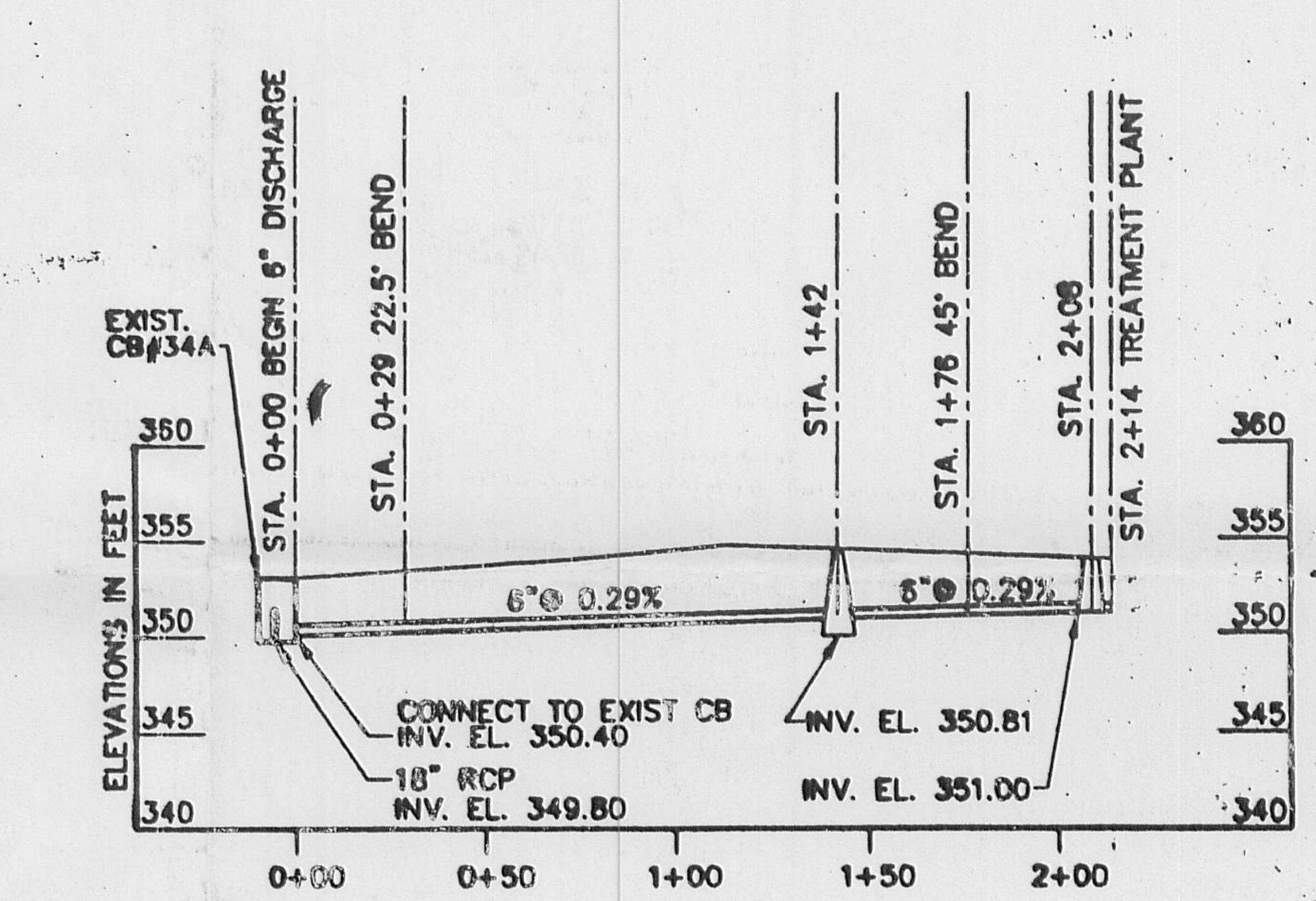
PLAN

SCALE: 1"=50'



PROFILE 1 1/2" HDPE PIPELINE

SCALE: HORZ. 1"=50'
VERT. 1"=10'



PROFILE 6" TREATED WATER DISCHARGE LINE

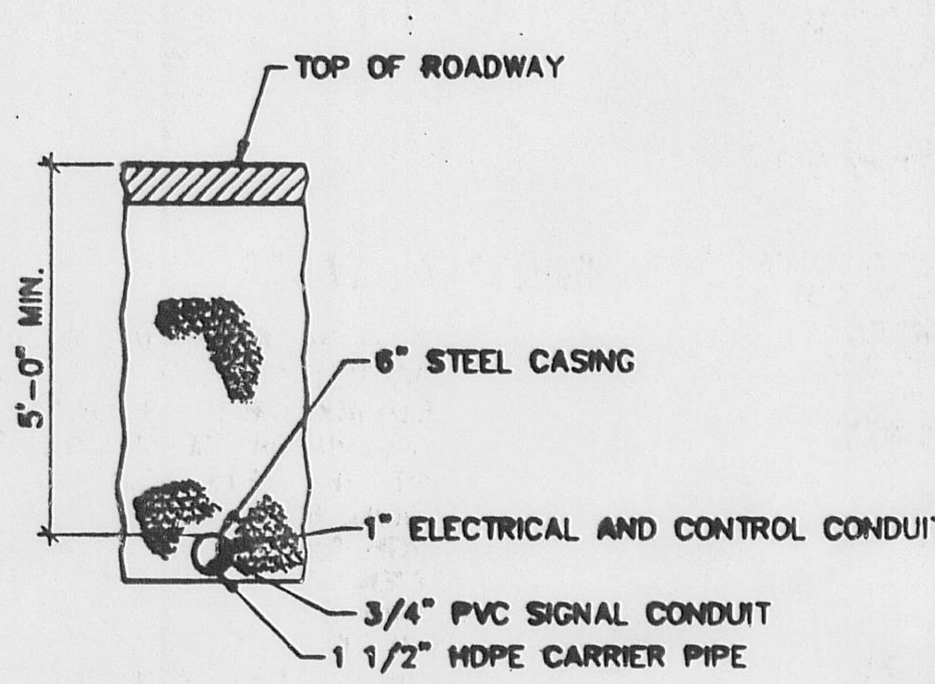
SCALE: HORZ. 1"=50'
VERT. 1"=10'

NOTES:

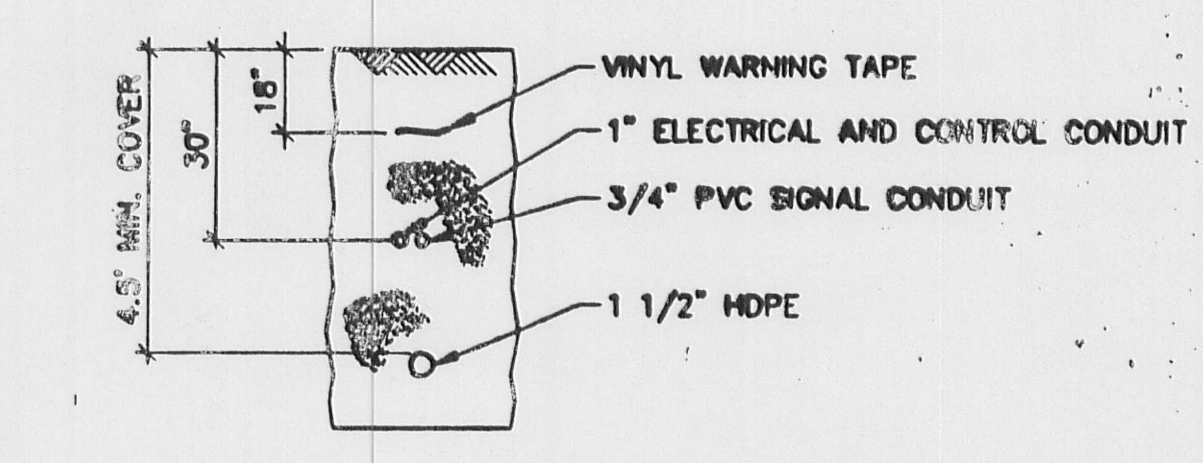
1. CONTRACTOR MAY ADJUST INVERTS AT THE TIME OF CONSTRUCTION, HOWEVER, THE CONTRACTOR SHALL PROVIDE A MINIMUM OF 4.5' OF COVER OVER THE PROPOSED PIPELINE.
2. CONTRACTOR SHALL MAINTAIN A MINIMUM OF 5' BETWEEN THE TOP OF THE CASING AND ROAD SURFACE WHEN CROSSING N.Y.S. ROUTE 66.
3. CONTRACTOR SHALL PROVIDE AIR RELIEF MANHOLES, AS SPECIFIED, AT ALL HIGH POINTS OF THE PIPE LINE AS SHOWN.
4. CONTRACTOR SHALL SAW-CUT ALL PAVEMENT PRIOR TO ANY DISTURBANCE.
5. ALL AREAS DISTURBED BY THE CONSTRUCTION ACTIVITIES OUTSIDE OF NYSDOT R.O.W. SHALL BE REPAIRED WITH SIMILAR MATERIALS AND RETURNED TO A PRE-CONSTRUCTION STATE. ALL AREAS DISTURBED WITHIN NYSDOT R.O.W. SHALL BE REPLACED IN KIND IN ACCORDANCE WITH NYSDOT SPECIFICATIONS AND DETAIL 1/9 9
6. LOCATIONS AND DEPTHS OF ALL EXISTING UNDERGROUND UTILITIES SUCH AS GAS SERVICES, SANITARY SEWERS, STORM SEWERS, AND TELEPHONE ARE APPROXIMATE. CONTRACTOR SHALL NOTIFY U.F.P.O. OR UTILITY OWNER AND REQUEST THAT EXACT LOCATIONS OF UTILITIES BE MARKED IN FIELD PRIOR TO THE START OF CONSTRUCTION. CONTRACTOR SHALL LOCATE ALL SERVICE LATERALS PRIOR TO TRENCHING.
7. CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY DEVIATIONS FROM THE EXPECTED CONDITIONS.
8. ALL EXCAVATIONS SHALL BE EITHER BACKFILLED AT THE COMPLETION OF DAILY CONSTRUCTION ACTIVITIES OR ENCLOSED WITH A 4 FOOT HIGH SAFETY FENCE WITH THE AREA ADEQUATELY DELINEATED. CONTRACTOR IS RESPONSIBLE FOR ALL SAFETY RELATED ISSUES.
9. CONTRACTOR TO PLACE ELECTRICAL PULL BOXES ALONG SIGNAL CONDUIT ROUTE AS REQUIRED.
10. TREES AND SHRUBS TO BE PROTECTED FROM DAMAGE DUE TO CONSTRUCTION ACTIVITIES.
11. REMOVE EXISTING BUSH AND REPLACE WITH FLOWERING DOGWOOD TREE. TREE SHALL BE A MINIMUM OF 5' TALL AND 3/8" D.B.H.
12. DAY CARE PROPERTY FENCE SHALL NOT BE DISTURBED IN ANY MANNER.
13. LANDSCAPE AREA AROUND RW1, RW2 AND RW3 WITH A MINIMUM OF (3) LOW GROWING YEW (TAXUS) SHRUBS. LOCATION OF SHRUBS TO BE DETERMINED BY ENGINEER. SHRUBS SHALL BE A MINIMUM OF 3' TALL.

SPECIAL NOTE:

- IT IS THE INTENT UNDER THIS CONTRACT THAT DISTURBANCE OF PROPERTY BE KEPT TO AN ABSOLUTE MINIMUM. THEREFORE, THE CONTRACTOR SHALL EMPLOY, TO THE MAXIMUM EXTENT POSSIBLE, A CHAIN OR LADDER TYPE TRENCHING MACHINE WHEN OPEN CUTTING FOR THE INSTALLATION OF ALL WATER LINES. TRENCHING MACHINE SHALL BE CAPABLE OF EXCAVATING TO A MINIMUM DEPTH OF 5' WITH A MAXIMUM TRENCH WIDTH OF 15". CONTRACTOR SHALL SUBMIT TRENCHING MACHINE OPERATING DATA TO ENGINEER FOR APPROVAL PRIOR TO THE START OF CONSTRUCTION. CONTRACTOR SHALL SUBMIT AN EXCAVATION PLAN SHOWING LOCATIONS WHERE TRENCHING MACHINE CANNOT BE EFFECTIVELY USED AND IDENTIFY ALTERNATE METHOD OF EXCAVATION.



1/2 2 HIGHWAY BORING
NOT TO SCALE



2/2 2 TYPICAL PIPE CONDUIT PLACEMENT
NOT TO SCALE

REVISIONS			
NO.	BY	DATE	REMARKS
1	MJJ	6/95	ADDED NOTES, DELETED FENCE AT RW-3

MALCOLM PIRNIE

DES MJJ
DWN SMH
CKD JBM

ROXY CLEANERS SITE (NYSDEC #442024)
RENSSELAER COUNTY, NEW YORK

GROUNDWATER REMEDIATION PROJECT

PIPELINE
PLAN & PROFILES
SCALE: 1'=50'

DATE MARCH 1995
G SHEET 2 OF 10
DWG. NO. 0266N-95.002-0

APPENDIX D

Bid Tabulation

BID TABULATION AND ENGINEER'S ESTIMATE FOR
ROXY CLEANERS GROUNDWATER REMEDIATION, SITE NO. 4-42-024
Bids Opened 1-18-96 by John Dumin

Bid item	Description	Unit	QNTY	ENGINEER'S EST. Unit Cost	Cost	Envir. Waste Tech Unit Cost	Cost	Envir. Products & Svcs. Unit Cost	Cost	EnviroTrac Unit Cost	Cost	Allstate Power-Vac Unit Cost	Cost	Yolam Construction Unit Cost	Cost	Bubonia Unit Cost	Cost	D.A. Collins Unit Cost	Cost
LS-1	Treatment Building	L.S.	1	$25,000.00	$25,000.00	$16,582.50	$16,582.50	$36,923.00	$36,923.00	$25,000.00	$25,000.00	$27,000.00	$27,000.00	$31,000.00	$31,000.00	$25,000.00	$25,000.00	$3,000.00	$3,000.00
LS-2	Treatment Equip.	L.S.	1	$42,600.00	$42,600.00	$15,018.75	$15,018.75	$22,144.00	$22,144.00	$20,600.00	$20,600.00	$55,300.00	$55,300.00	$52,000.00	$52,000.00	$26,500.00	$26,500.00	$49,000.00	$49,000.00
LS-3	Well Pumps	L.S.	1	$14,500.00	$14,500.00	$17,898.77	$17,898.77	$7,835.00	$7,835.00	$6,100.00	$6,100.00	$35,000.00	$35,000.00	$33,000.00	$33,000.00	$23,700.00	$23,700.00	$16,000.00	$16,000.00
LS-4	Electrical Work	L.S.	1	$26,000.00	$26,000.00	$7,600.00	$7,600.00	$10,200.00	$10,200.00	$9,500.00	$9,500.00	$36,000.00	$36,000.00	$37,000.00	$37,000.00	$27,000.00	$27,000.00	$24,000.00	$24,000.00
LS-5	Instru. & Alarms	L.S.	1	$11,000.00	$11,000.00	$14,043.75	$14,043.75	$2,508.00	$2,508.00	$4,500.00	$4,500.00	$12,000.00	$12,000.00	$6,000.00	$6,000.00	$34,800.00	$34,800.00	$3,000.00	$3,000.00
LS-6	Mob./Demob.	L.S.	1	$10,000.00	$10,000.00	$27,130.59	$27,130.59	$23,888.00	$23,888.00	$8,000.00	$8,000.00	$21,000.00	$21,000.00	$25,000.00	$25,000.00	$6,500.00	$6,500.00	$29,500.00	$29,500.00
LS-7	Vapor Phase Carbon	L.S.	1	$5,550.00	$5,550.00	$5,212.50	$5,212.50	$4,432.00	$4,432.00	$5,800.00	$5,800.00	$5,000.00	$5,000.00	$7,000.00	$7,000.00	$5,300.00	$5,300.00	$7,200.00	$7,200.00
UP-1.1	1 1/2 inch piping	L.F.	964	$20.00	$19,280.00	$17.44	$16,812.16	$23.75	$22,895.00	$33.61	$32,400.04	$17.00	$16,388.00	$32.00	$30,848.00	$56.00	$53,984.00	$32.00	$30,848.00
UP-1.2	1 inch piping	L.F.	200	$18.00	$3,600.00	$16.58	$3,316.00	$16.21	$3,242.00	$22.50	$4,500.00	$16.00	$3,200.00	$30.00	$6,000.00	$57.00	$11,400.00	$15.00	$3,000.00
UP-1.3	6" Discharge Pipe	L.F.	214	$20.00	$4,280.00	$42.86	$9,172.04	$26.50	$5,671.00	$27.10	$5,799.40	$26.00	$5,564.00	$30.00	$6,420.00	$67.00	$14,338.00	$40.00	$5,560.00
UP-2	Rock Excavation	C.Y.	10	$50.00	$500.00	$75.00	$750.00	$150.00	$1,500.00	$130.00	$1,300.00	$160.00	$1,600.00	$150.00	$1,500.00	$98.00	$980.00	$550.00	$5,500.00
UP-3	Casing under rt. 66	L.F.	90	$300.00	$27,000.00	$173.61	$15,624.90	$65.00	$5,850.00	$191.11	$17,199.90	$145.00	$13,050.00	$210.00	$18,900.00	$250.00	$22,500.00	$160.00	$14,400.00
UP-4	Precast Manholes	each	2	$2,000.00	$4,000.00	$593.75	$1,187.50	$2,500.00	$5,000.00	$1,750.00	$3,500.00	$3,600.00	$7,200.00	$3,000.00	$6,000.00	$1,710.00	$3,420.00	$3,300.00	$6,600.00
UP-5	Air Relief Manholes	each	2	$2,000.00	$4,000.00	$646.88	$1,293.76	$2,750.00	$5,500.00	$2,150.00	$4,300.00	$3,600.00	$7,200.00	$4,000.00	$8,000.00	$2,700.00	$5,400.00	$3,500.00	$7,000.00
UP-8	Select Fill	C.Y.	400	$13.00	$5,200.00	$11.25	$4,500.00	$3.50	$1,400.00	$9.25	$3,700.00	$18.00	$7,200.00	$7.00	$2,800.00	$6.25	$2,500.00	$25.00	$10,000.00
UP-10	Health and Safety	days	30	$200.00	$6,000.00	$362.50	$10,875.00	$82.50	$2,475.00	$166.67	$5,000.10	$200.00	$6,000.00	$200.00	$6,000.00	$240.00	$7,200.00	$500.00	$15,000.00
UP-11	Site Services	days	180	$66.00	$11,880.00	$14.18	$2,554.20	$47.25	$8,505.00	$221.81	$39,925.80	$30.00	$5,400.00	$10.00	$1,800.00	$141.67	$25,500.60	$400.00	$72,000.00
				Total	$220,390.00		$169,572.42		$169,968.00		$197,125.24		$264,102.00		$279,268.00		$296,022.60		$304,608.00
	Pollution Liability Ins.						$1.00		$5,000.00		$25,000.00		$30,000.00		$40,000.00		$0.00		$52,000.00

Bid item	Description	Unit	QNTY	Maine Environmental Unit Cost	Cost	Groundwater Tech. Unit Cost	Cost	Maxymillian Tech Unit Cost	Cost	Tyree Unit Cost	Cost	Clean Harbors Unit Cost	Cost	Florida Gulf Unit Cost	Cost	Kleen Resources Unit Cost	Cost	Buffalo Drilling Unit Cost	Cost
LS-1	Treatment Building	L.S.	1	$31,600.00	$31,600.00	$24,597.00	$24,597.00	$23,832.00	$23,832.00	$20,758.57	$20,758.57	$28,414.00	$28,414.00	$30,000.00	$30,000.00	$28,450.00	$28,450.00	$113,660.00	$113,660.00
LS-2	Treatment Equip.	L.S.	1	$38,700.00	$38,700.00	$54,778.00	$54,778.00	$68,814.00	$68,814.00	$32,653.48	$32,653.46	$46,260.40	$46,260.40	$70,000.00	$70,000.00	$41,800.00	$41,800.00	$40,000.00	$40,000.00
LS-3	Well Pumps	L.S.	1	$19,375.00	$19,375.00	$12,030.00	$12,030.00	$22,822.00	$22,822.00	$11,220.85	$11,220.85	$15,119.25	$15,119.25	$40,000.00	$40,000.00	$5,000.00	$5,000.00	$30,000.00	$30,000.00
LS-4	Electrical Work	L.S.	1	$12,000.00	$12,000.00	$34,165.00	$34,165.00	$52,000.00	$52,000.00	$33,350.63	$33,350.63	$33,041.75	$33,041.75	$40,000.00	$40,000.00	$35,000.00	$35,000.00	$40,000.00	$40,000.00
LS-5	Instru. & Alarms	L.S.	1	$4,000.00	$4,000.00	$10,500.00	$10,500.00	$32,000.00	$32,000.00	$14,323.31	$14,323.31	$10,990.00	$10,990.00	$45,000.00	$45,000.00	$3,500.00	$3,500.00	$75,000.00	$75,000.00
LS-6	Mob./Demob.	L.S.	1	$14,850.00	$14,850.00	$10,700.00	$10,700.00	$23,000.00	$23,000.00	$5,655.84	$5,655.84	$45,808.00	$45,809.00	$30,000.00	$30,000.00	$200,221.00	$200,221.00	$25,000.00	$25,000.00
LS-7	Vapor Phase Carbon	L.S.	1	$5,830.00	$5,830.00	$3,150.00	$3,150.00	$8,700.00	$8,700.00	$5,512.50	$5,512.50	$6,048.00	$6,048.00	$10,000.00	$10,000.00	$4,800.00	$4,800.00	$15,000.00	$15,000.00
UP-1.1	1 1/2 inch piping	L.F.	964	$72.50	$69,890.00	$56.04	$54,022.56	$35.00	$33,740.00	$26.93	$25,960.52	$57.23	$55,169.72	$20.00	$19,280.00	$21.79	$21,005.56	$50.00	$48,200.00
UP-1.2	1 inch piping	L.F.	200	$53.00	$10,600.00	$40.99	$8,198.00	$27.00	$5,400.00	$35.16	$7,032.00	$48.73	$9,746.00	$20.00	$4,000.00	$178.75	$35,750.00	$45.00	$9,000.00
UP-1.3	6" Discharge Pipe	L.F.	214	$74.00	$15,836.00	$74.42	$15,925.88	$49.00	$10,486.00	$35.56	$7,609.84	$61.08	$13,071.12	$50.00	$10,700.00	$182.36	$39,025.04	$60.00	$12,840.00
UP-2	Rock Excavation	C.Y.	10	$100.00	$1,000.00	$357.00	$3,570.00	$50.00	$500.00	$100.00	$1,000.00	$385.00	$3,850.00	$100.00	$1,000.00	$1,200.00	$12,000.00	$100.00	$1,000.00
UP-3	Casing under rt. 66	L.F.	90	$554.00	$49,860.00	$94.50	$8,505.00	$392.00	$35,280.00	$1,827.45	$164,470.50	$192.50	$17,325.00	$400.00	$36,000.00	$496.56	$44,690.40	$220.00	$19,800.00
UP-4	Precast Manholes	each	2	$2,915.00	$5,830.00	$1,981.50	$3,963.00	$1,750.00	$3,500.00	$2,615.94	$5,231.88	$7,076.00	$14,152.00	$1,800.00	$3,600.00	$949.50	$1,899.00	$5,000.00	$10,000.00
UP-5	Air Relief Manholes	each	2	$3,710.00	$7,420.00	$2,594.00	$5,188.00	$3,100.00	$6,200.00	$2,544.94	$5,089.88	$6,196.00	$12,392.00	$2,000.00	$4,000.00	$949.50	$1,899.00	$5,500.00	$11,000.00
UP-8	Select Fill	C.Y.	400	$10.00	$4,000.00	$7.15	$2,860.00	$25.00	$10,000.00	$15.00	$6,000.00	$11.00	$4,400.00	$6.00	$2,400.00	$27.99	$11,196.00	$15.00	$6,000.00
UP-10	Health and Safety	days	30	$80.00	$2,400.00	$175.57	$5,267.10	$85.00	$2,550.00	$8.33	$249.90	$313.45	$9,403.50	$1,500.00	$45,000.00	$116.67	$3,500.10	$100.00	$3,000.00
UP-11	Site Services	days	180	$82.75	$14,895.00	$536.57	$96,582.60	$98.00	$17,640.00	$96.22	$17,319.60	$242.50	$43,650.00	$400.00	$72,000.00	$789.28	$142,070.40	$1,000.00	$180,000.00
					$308,086.00		$354,002.14		$356,464.00		$363,439.38		$368,841.74		$462,980.00		$631,806.60		$639,500.00
	Pollution Liability Ins.				17500		$0.00		$8,800.00		$600.00		$0.00		15000		5000		0