ENSR Consulting
and Engineering
35 Nagog Park
Acton, Massachusetts 01720
(508) 635-9500
(508) 635-9180 (FAX)

March 25, 1992

Carin Wolkenberg
Rosenberg & Liebentritt, P.C.
Two North Riverside Plaza
Chicago, IL 60606

Re: RI/FS Proposal: Lapp Insulator Site, LeRoy, New York

Dear Carin:

ENSR Consulting and Engineering is pleased to transmit three copies of the above referenced proposal to conduct a Remedial Investigation/Feasibility Study of the Lapp site in LeRoy, New York. This proposal follows-up on our Phase II site assessment work performed for the recent refinancing.

Our proposal is intended to take you through the RI/FS process, including negotiating with NYSDEC over the cleanup standards to be employed. Additionally, we have added a task to design the sump removal and to provide contractor oversight relative to the implementation of our design. This latter activity has been specified by Heller as an early action item.

The total estimated cost for the work program, as specified in this proposal, is $530,900 to $533,400. This is somewhat higher than the estimated costs contained in our Phase II report ($62,000 to $100,000 for the landfill investigations plus $200,000-300,000 for all other front end studies for a total of $262,000 to $400,000). The major difference relates to the recently issued draft cleanup guidelines that was prepared by NYSDEC. This document outlines the procedures to be followed in evaluating a site and establishing the nature of cleanup activities that will be required. One important component of the NYSDEC process is a formal risk assessment. While our actual risk assessment task cost is not extensive ($20,000), substantial additional sampling is needed (of surficial soils in particular) in order to provide the necessary quantitative data to perform the risk assessment. Through the use of risk assessment, we are hopeful that the ultimate site remediation costs can be reduced.

Our proposed approach is to use the RI process plus risk assessment to generate the data needed to approach with state with a highly defensible conceptual cleanup program, including cleanup criteria. This would be in contrast to going to the state now armed with only the Phase II information. The success of our proposed approach hinges on state reporting requirements. Based upon the various telephone conversations that we had in conjunction with preparing the Phase II assessment, it was our understanding that McDermott Will & Emery was of the opinion that you have no immediate reporting

ENSR

requirement. We strongly urge that you have McDermott Will revisit this issue to ensure its accuracy. If there is a more immediate reporting requirement that was triggered by the earlier Phase II analytical testing program, we think that it would be highly problematic if the state's first "knowledge" of the situation occurs when we approach them with the RI study in September or early October.

Please also note that although site remediation does not have to begin until May 1993, this is still a potentially tight schedule in view of the amount of work that needs to take place and potential delays associated with agency negotiations. Any analytical sampling program is further constrained by the presence of snow cover. We believe that in order to meet the May 1993 start date, we need to initiate study activities by mid-April and complete all field work before early or mid-October. Although we were lucky this winter not to encounter snow cover during our January field investigation, the first major snow fall in the Rochester area can take place in late Fall. In short, you need to plan for implementing the RI/FS process now.

Finally, you should note that we have reduced the mark-up on all other direct costs (ODC) to a flat 10% rate. Normally, outside drilling and analytical costs are marked-up by 20%.

We are prepared to discuss this proposal with you at your convenience. Please call either myself or Veronica O'Donnell should you have any questions.

Sincerely,

Halley I. Moriyama
Vice President

Enclosure

13th Grant
FYI
p/s. return

McDERMOTT, WILL & EMERY
A PARTNERSHIP INCLUDING PROFESSIONAL CORPORATIONS

75 STATE STREET
BOSTON, MASSACHUSETTS 02109
617/345-5000

2029 CENTURY PARK EAST
LOS ANGELES, CALIFORNIA 90067
213/277-4110

201 SOUTH BISCAYNE BOULEVARD
MIAMI, FLORIDA 33131
305/358-3500

227 WEST MONROE STREET
CHICAGO, ILLINOIS 60606-5096
312/372-2000

CLIENT/ATTORNEY RECEPTION 44TH FLOOR
MAIL/MESSENGER RECEPTION 31ST FLOOR

FACSIMILE 312/984-2099
TELEX 253565, 210079
CABLE MILAM

1301 DOVE STREET
NEWPORT BEACH, CALIFORNIA 92660
714/851-0633

1211 AVENUE OF THE AMERICAS
NEW YORK, NEW YORK 10036
212/768-5400

1850 K STREET, N.W
WASHINGTON, D.C. 20006
202/887-8000

May 15, 1992

CAROLYN S. HESSE
312/984-3682

VIA MESSENGER

Ms. Carin Wolkenberg
Rosenberg & Liebentritt, P.C.
Two North Riverside Plaza
Chicago, IL 60606

Re: Lapp Insulator Company's Landfill
LeRoy, New York

Dear Carin:

This letter is in response to your request for information regarding what regulatory requirements, if any, apply to the two landfills associated with the Lapp Insulator facility in LeRoy, New York. Under New York law, to determine which set of regulations applies to a landfill, one must determine when wastes were last sent to that landfill. Based on the information provided to me, it appears that Lapp last used the landfill in approximately 1976. This pre-dates New York's first regulations that require permits and closure of landfills. These regulations went into effect on August 28, 1977.

Since the 1977 regulations do not appear to apply, one must consider the requirements of the regulations that were in effect in 1976. A copy of these regulations, which were promulgated in 1973, are enclosed. The 1973 regulations did not have detailed "closure" requirements, but required that "a final compacted cover of at least two feet of a suitable cover material shall be placed within one week after the final deposit of refuse in any portion of such refuse disposal area unless an exemption in writing is granted by the commissioner." See Section 360.2(a)(4). This interpretation of the New York landfill regulations was confirmed in a telephone conversation with Richard Hammond who is in the solid waste section at the New York State Department of Environmental Conservation. Mr. Hammond also

advised me that he would send to me a copy of the regulations that went into effect on August 28, 1977.

Although there may not be applicable regulations under the Resource Conservation and Recovery Act, the government could use its authority under Superfund to require some type of remedial action at the landfill if it is determined that hazardous substances, as defined under Superfund, are being released or are threatened to be release into the environment. We have no knowledge at this time of any such releases.

If you have any additional questions concerning the landfill in New York, please feel free to call.

Sincerely yours,

Carolyn S. Hesse

CSH/rd

Enclosure

cc: Wayne Subject
Gene Holloway
Harvey Sheldon

\31759\010\55CORCEH.015

ENSR Reference No: 053-VWO-107

December 10, 1991

Ms. Carin Wolkenberg (312)466 3620
Rosenberg & Liebentritt, P.C.
Two North Riverside Plaza
Chicago, IL 60606

Re: Proposal for a Phase II Limited Soil Sampling Program
Lapp Insulator Company; LeRoy, New York

Dear Ms. Wolkenberg:

ENSR Consulting and Engineering (ENSR) is pleased to present this proposal for a Level II Environmental Site Assessment at the Lapp Insulator facility. The scope of work provided in this proposal is based upon the outstanding issues and potential areas of concern outlined in our Phase I Environmental Site Assessment conducted at the above referenced facility.

SCOPE OF WORK

Task 1: Field Activities

Soil Sampling

Based on the historic uses of volatile organic compounds (VOC) and various waste oils, virgin oils, metals and hazardous wastes at the facility, ENSR proposes the installation of approximately thirty-five soil samples to be located in, but not limited to, the following areas:

- at the stained soil locations near the exterior hazardous waste and materials concrete storage pad
- area near the foundation crack at the rear of the flammable storage satellite building
- area west of the special porcelain building where discarded drums were observed
- the drum rack storage area, west of the rail spur and the clay storage silo area
- on-site settling ponds, located to the northwest of the site, adjacent to the Munson Street extension
- on-site landfill, located to the northeast of the site and north of the high voltage lab are, and to the south of the site,south of the hazardous materials pad and the shipping and receiving areas;

- former underground storage tank (UST) locations;
- the concrete sump located at the hazardous waste storage pad;
- sediments resulting from outfall discharge to the Oatka Creek.

The precise soil sampling locations will be field determined based upon access and additional site information. The sampling locations will be chosen to allow for a representative number of samples to be taken from each of the above locations. The soil samples will be obtained using a hand auger, where possible, or using a hollow-stem auger drilling method. Soil samples from borings will be obtained from the borings using a split-spoon sampler. The soil samples will be visually inspected and classified in the field by an ENSR geologist or environmental scientist. The samples will also be field screened for volatile organic compounds (VOC) with a photoionization detector (PID) using a headspace technique. All soil samples will be placed in the appropriate laboratory prepared jars and labelled with the date, time, sample location, sample depth, and the name of the sampler. Two soil samples per boring location will be submitted for laboratory analyses. The samples will be chosen for analysis based on field observations and measurements. The samples submitted for analyses will include the sample with the highest head space reading and the sample from the termination of the boring. If additional samples are believed to warrant laboratory analysis, ENSR will prepare the samples for analyses, but will not submit them for analysis prior to obtaining additional authorization from Rosenberg & Liebentritt, P.C.

Documentation relating to the retrofitting of the roof transformers to contain less than 50 ppm PCB, and no observations regarding spillage or leakage from other transformers at the facility indicate that extensive PCB sampling and analyses is not warranted at this time. There were, however, observations of leakage from transformers stored in the quonset hut. No documentation was found to indicate the PCB content of these stored transformers. PCB wipe samples will be collected from areas where spillage is observed. For purposes of costing, two wipe samples have been included.

The floor drains at the facility have reportedly been sealed, and the breaking of the seal to sample sediments possibly contained in these drains does not appear warranted at this time. Sediment sampling near the Oatka Creek where these drains historically discharged will provide information on potential contamination problems.

Monitoring Well Installation and Soil Sampling

Based on the groundwater flow patterns at the facility, historic uses of volatile organic compounds (VOC), metals, and various waste oils, virgin oils, and hazardous wastes at the facility, ENSR proposes the installation of six monitoring wells. The wells will be located to evaluate the ground water quality beneath the areas of the site where potential environmental contamination may exist. The locations will be selected to provide information on the potential

for ground water contamination from the process tanks and vapor degreaser units. The actual well locations will be field determined based upon access and additional site information.

The field investigation will include the installation of six groundwater monitoring wells, groundwater sampling and analyses, and the collection of a minimum of one soil sample per well location for laboratory analyses. For purposes of costing this task, groundwater is assumed to be at approximately 15 to 20 feet, and the wells are assumed to be installed in the overburden and not in the bedrock. These wells will be constructed with a ten-foot well screen, and will be approximately 25 to 30 feet deep. The actual depth of each well will be determined in the field, based on conditions encountered during drilling.

The wells will be installed under the direct supervision of an ENSR geologist or environmental scientist. The borings will be advanced using a hollow-stem auger drilling method. Soil samples will be obtained from the monitoring well borings at five foot intervals, using a split-spoon sampler. The soil samples will be visually inspected and classified in the field by an ENSR geologist or environmental scientist. The samples will also be field screened for volatile organic compounds (VOC) with a photoionization detector (PID) using a headspace technique. All soil samples will be placed in the appropriate laboratory prepared jars and labelled with the date, time, sample location, sample depth, and the name of the sampler. One soil sample per boring location will be submitted for laboratory analyses. The samples will be chosen for analysis based on field observations and measurements. If additional samples are believed to warrant laboratory analysis, ENSR will prepare the samples for analyses, but will not submit them for analysis prior to obtaining additional authorization from Rosenberg & Liebentritt P.C.

The wells will be constructed of two-inch I.D. flush joint PVC. A ten-foot factory slotted No.1 slot, or other appropriately sized, PVC screen will be installed at the water table. The screens will be sand packed to at least two feet above the top of the well screen, and a bentonite seal will be placed above the sand. The annulus will be grouted with a cement-bentonite grout to the ground surface. A steel protective casing with locking cap will be installed to prevent the introduction of any foreign material. The supervising ENSR geologist or environmental scientist will prepare the geologic columns and ensure that the well drilling and installation specifications are followed.

After completion of the installation, the wells will be developed until the discharging ground water runs clear. The supervising geologist or environmental scientist will make the final field decision as to the completion of development. The wells will be allowed to stabilize prior to sampling.

Groundwater Sampling

After completion of well development and groundwater stabilization in the six new wells, one groundwater sample from each well will be collected by an ENSR geologist or environmental scientist, from the newly installed wells. Prior to sampling, the depth to groundwater will be measured, and the well will be purged of three to five well volumes of water in accordance with the United States Environmental Protection Agency (USEPA) sampling guidelines. Temperature,

specific conductance and pH readings will be taken repeatedly during well purging to ensure that a representative groundwater sample is collected and as an additional field determination of the levels of potential contamination in the groundwater. The initial sample will be collected using a clean teflon bailer. The bailer will be decontaminated prior to the sampling of each additional well by an ENSR geologist.

The groundwater sampling will be conducted in accordance with ENSR Standard Operating Procedures. Samples will be placed in the appropriate laboratory prepared jars and labeled with the date, time, sample location, and name of the sampler. Chain-of-custody procedures will be followed during the sampling and shipping of samples. Samples will be submitted to the laboratory at the end of each field day.

Task 2: Laboratory Analyses and Report Preparation

Groundwater samples will be analyzed for VOC and metals. If during the sample collection, oils, an oily sheen, or free floating product is observed, the sample will also be analyzed for TPH. All soil samples will be analyzed for VOC and Total Petroleum Hydrocarbons (TPH); soil samples obtained from areas where metals contamination is suspected will also be analyzed for priority pollutant metals. Sediment samples from the settling pond, the area near Oatka Creek, and the on-site landfills will be analyzed for VOC, TPH, and priority pollutant metals. The sediment sample(s) collected from the Creek area will also be analyzed for PCB. Upon completion of the field investigation and receipt of the laboratory analyses, a report will be prepared detailing the work performed at the site, and providing an assessment of the level of contamination at the site, if any. An estimate of the costs associated with the worst case remediation scenario will also be provided. This report will include:

- Introduction (purpose of study and site description)
- Discussion of field observations and findings
- Description of investigation
- Discussion of analytical results;
- Conclusions and recommendations regarding the environmental conditions and potential liabilities at the site, and an estimate of the costs associated with the worst case remediation scenario at the facility will be provided
- Appendices containing analytical data, water level data, boring logs, etc.

The liability cost estimates to be provided will be based upon what ENSR considers to be "reasonable worst case" estimates, rather than "most likely" costs. The reasonable worst case costs and liabilities are the highest that ENSR believes are reasonably possible. This means that

the chances the costs and liabilities will be higher than the estimate are reasonably small, but not zero. Of all the damaging contingencies that might take place, the reasonable worst case estimate takes into account only those whose occurrence is considered reasonable to assume. Making a most likely liability cost estimate would require that ENSR estimate not only the nature and extent of any possible contamination, but also the actual likelihood that remedial action would be required by governmental agencies, and the timing and degree of remediation that such agencies would required. These estimates of the likelihood of reguatory involvement introduce additional and very large variables into an equation that is already filled with assumptions. We therefore will develop a reasonable worst case cost range for each of the identified areas of contamination (as defined by the analytical results) while stating that the most likely remediation costs will be potentially less than this estimate.

PROJECT COSTS

ENSR proposes to conduct this work on a Time and Material (T&M) basis in accordance with our Commercial Terms, a copy of which is enclosed for your reference. For purposes of costing this proposal, ENSR has assumed that the four groundwater monitoring wells will be installed, developed, and sampled, and that one soil sample from each of four borings and ???? surficial, near-surface soil samples, and sediment samples will be submitted for laboratory analyses. ENSR assumes that eight soil/sediment and four groundwater samples will also be submitted for priority pollutant metals analyses, two soil/sediment samples will be analyzed for PCB, and two wipe samples will be collected and submitted for PCB analyses. For purposes of costing, no TPH analyses on groundwater samples is assumed. For quality assurance purposes, one trip blank and one field blank for both soil and ground water, for a total of four samples, will also be submitted for analyses. Ground water is assumed to be at 15 to 20 feet, and the total depth of the wells will be between 25 and 30 feet. The wells are assumed to be installed in the overburden and not in the bedrock.

Project costs may vary based on site specific conditions requiring the collection and submission of additional samples. As time is of the essence in projects such as these, ENSR is requesting authorization to go beyond the costs stipulated in this proposal by a factor of 15%. This pre-authorization will provide the much needed flexibility for making the appropriate field decisions with regard to sampling locations and the number of samples.

Our estimate for completing this investigation is $?????? including ENSR direct labor, subcontractor charges (drilling and laboratory), and other direct costs. These costs assume an expedited turnaround time of three days. This expedited turnaround time increases the lab costs by 100%. The costs were compiled as follows:

Subcontractor Costs:

Drilling	$.
Analytical Laboratory	.

ENSR Costs:

Total Project Costs: $.

These projected costs will not be exceeded without specific authorization from Rosenberg & Liebentritt, P.C.

PROJECT SCHEDULE

ENSR is prepared to initiate the investigation during the week of January 6, 1992. It is anticipated that the field investigation can be completed within four to five days. Groundwater sampling will be performed upon well stabilization. A verbal report and analytical data will be submitted upon receipt of the analytical data; this would be expected before January 21, 1992. A written report will be submitted by January 24, 1992.

KEY PERSONNEL

Project Manager

Veronica W. O'Donnell, Manager of Environmental Site Assessments and Senior Geologist, will serve as Project Manager for this project. Ms. O'Donnell has over eleven years experience, including the management of site investigations and remediation projects of varying size. Other experience includes agency negotiation, proposal review, site specific sampling and remedial investigation plans, and construction oversight. As Project Manager, Ms. O'Donnell will coordinate the project and serve as ENSR's day to day contact for Rosenberg & Liebentritt, P.C., and will be responsible for scheduling and coordinating appropriate ENSR staff and subcontractors, as well as monitoring schedules and budgetary goal.

Thank you for the opportunity to prepare this proposal for your review. If this proposal reflects your understanding of the appropriate level of effort necessary, please indicate your acceptance and authorization to proceed by signing the enclosed and returning it to ENSR. If there are any questions or comments regarding this proposal, please do not hesitate to call or write.

Sincerely,

Veronica Wancho O'Donnell
Manager, Environmental Site Assessments

Halley I. Moriyama
Vice President

Rosenberg & Liebentritt, P.C.

Chicago, Illinois

Phase II Environmental Due Diligence Examination of Lapp Insulator Company, LeRoy, New York

ENSR Consulting and Engineering

January 1992

Document Number 5780-028-320

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APPENDICES

1.0 INTRODUCTION

1.1 Project Background

ENSR Consulting and Engineering (ENSR) was retained by Rosenberg & Liebentritt, P.C. to conduct an environmental due diligence investigation of the Lapp Insulator Company (Lapp) facility which is situated in LeRoy, NY, about 30 miles south southwest of Rochester. Of specific concern to this evaluation is the extent to which there may significant environmental liabilities associated with the potential presence of an on-site hazardous waste or petroleum hydrocarbon contamination problem that might require clean-up. This evaluation was being requested by Heller Financial in conjunction with a refinancing of several subsidiary companies of Eagle Industries, Inc.

1.2 Site Location and Description

Lapp produces ceramic insulators, dead-end (suspension units designed to terminate the conductor at a structure) ethylene propylene diethylene monomer (EPDM) insulators, other EPDM insulators, and resin and condenser (oil) impregnated high voltage transformer bushings at their LeRoy facility. Lapp's 66-acre site is located to the east and west of Gilbert Street.

The subject site is located in a residential and agricultural area. To the north of the subject site is Munson Street Extension, a Village of LeRoy recreation area, a credit union and residences. To the east and south beyond Lapp's Gilbert Street property is Oatka Creek (formerly Allens Creek), followed by residential, agricultural and wooded areas. To the south and west of the site is a railroad line, beyond which are agricultural and undeveloped properties.

Approximately 25% to 30% of the nearly 66-acre site is developed. The entire site contains approximately 650,000 square feet or approximately 17 acres of manufacturing and storage space under roof. Asphalt parking and storage areas surround the facility along Gilbert Street and the perimeter of the manufacturing areas. Gravel areas extend beyond the asphalt to provide easier access to both roofed and open air storage facilities. There are also miscellaneous out buildings situated to the northeast, northwest, east, southeast and west of the main manufacturing areas.

1.3 Summary of Phase I Investigation

ENSR's initial investigative activities took place between September 10 and 13, 1991 and involved the conduct of a Phase I evaluation. ENSR's findings were transmitted in a letter report dated September 26, 1991, a copy of which is contained in Appendix A.

Based upon the historical research; review of facility blueprints; review of governmental waste incident data bases and files; interviews conducted with selected individuals; and the on-site visual inspection of the property, no direct evidence was found to indicate that there is or has been a significant contamination problem affecting the subject site.

However, during the course of the Phase I investigation several sources of potentially significant concern were identified and included the following:

- the stained soil locations near the exterior hazardous waste (materials) storage pad;
- the drum rack storage area, located to the west of the rail spur and the clay storage silo area;
- the four former underground storage tank (UST) locations, where tanks were previously pulled prior to regulations requiring governmental approval and observation of such removals;
- the drainage ditch running from the hazardous waste (materials) storage pad;
- the on-site landfill located along the southerly end of the site, south of the hazardous waste (materials) storage pad and the shipping and receiving areas;
- the second on-site landfill located along the northeasterly side of the site and north of the high voltage lab area;
- the area near the scupper, a break in the foundation placed for fire protection purposes, at the rear of the flammable storage satellite building, this was referred to as a foundation crack in the Phase I report; because during the Phase I site investigation the area had been filled with Speedi-Dry and was not clearly visible; and,
- the area west of the special porcelain building where discarded drums were observed.

In view of the above identified sources of possible concern, Heller Financial requested that additional work be performed in an effort to analytically characterize on-site conditions and to prepare remediation cost estimates should contamination problems be identified as a result.

A Phase II field investigation program was implemented on January 6, 1992 and completed on January 10, 1992. This investigation program included the installation of 14 hollow-stem auger borings and 14 hand auger borings; the installation of 3 ground-water monitoring wells; and the collection of 3 water samples and numerous soil samples for analysis.

The results of the Phase II work program are described in this report. This work program was implemented consistent with the agreed upon scope of work described in ENSR's letter proposals of January 8 and 14, 1992.

1.4 Study Limitation

In the conduct of this investigation, ENSR has attempted to independently assess the potential presence of a significant contamination problem. As with any such investigation, there is a certain degree of dependence upon oral information provided by facility or site representatives which is not readily verifiable through visual inspection or supported by any available written documentation. ENSR shall not be held responsible for conditions or consequences arising from relevant facts that were concealed, withheld, or not fully disclosed by facility or site representatives at the time this investigation was performed.

This Report and all field data and notes were gathered and/or prepared by ENSR in accordance with the agreed upon scope of work and generally accepted engineering and scientific practice in effect at the time of ENSR's investigation of the site and facility. The statements, conclusions, and opinions contained in this Report are only intended to give approximations of the environmental conditions of the subject site. Moreover, there are several major qualifications that are inherent in the conduct of this or any other environmental evaluation.

First, it is difficult to predict which, if any of the potential environmental issues identified will become actual problems in the future, for federal and state environmental regulations continually change as do the enforcement priorities of the applicable governmental agencies involved.

Second, even for problems currently identified, it is often difficult and sometimes impossible to accurately estimate the costs and liabilities that may be involved in remedying such problems, for the legal and technological standards for evaluating, remedying, and allocating liability for certain issues, such as hazardous waste contamination, are in a constant state of change. Moreover, the liability for remedying environmental problems tends to be highly dependent upon

agency negotiations and the sometimes arbitrary and unpredictable nature of agency officials charged with such negotiations.

Third, there is always the distinct possibility that major sources of future liability have yet to manifest themselves to the point where they are reasonably identifiable through an external investigation such as the one being conducted for this proposed refinancing.

Finally, it should be noted that estimating hazardous waste site remediation costs is not a well developed procedure in which relatively accurate numbers can be prepared once an analytical testing program is completed. The development of site cleanup cost estimates requires detailed knowledge of a wide-range of factors, including:

- the identification of the full scope of the contaminants present;
- the spatial extent of the contamination in both a horizontal and vertical direction;
- information on subsurface conditions surrounding the contamination (i.e., permeability of the soils; rate of groundwater flow; bedrock conditions, etc.);
- an assessment of the health and safety risks associated with the contaminant levels present, including synergistic effects associated with combinations of contaminants; and,
- evaluation of alternative treatment/disposal option(s) and selection of the most appropriate one.

Moreover, as noted earlier, the cost to remediate soil and/or groundwater contamination is highly dependent upon negotiations with governmental agencies and the sometimes arbitrary and unpredictable nature of agency officials charged with such negotiations. In spite of the analytical testing program that has been conducted at this site, uncertainty may still exist with respect to many of the above described variables.

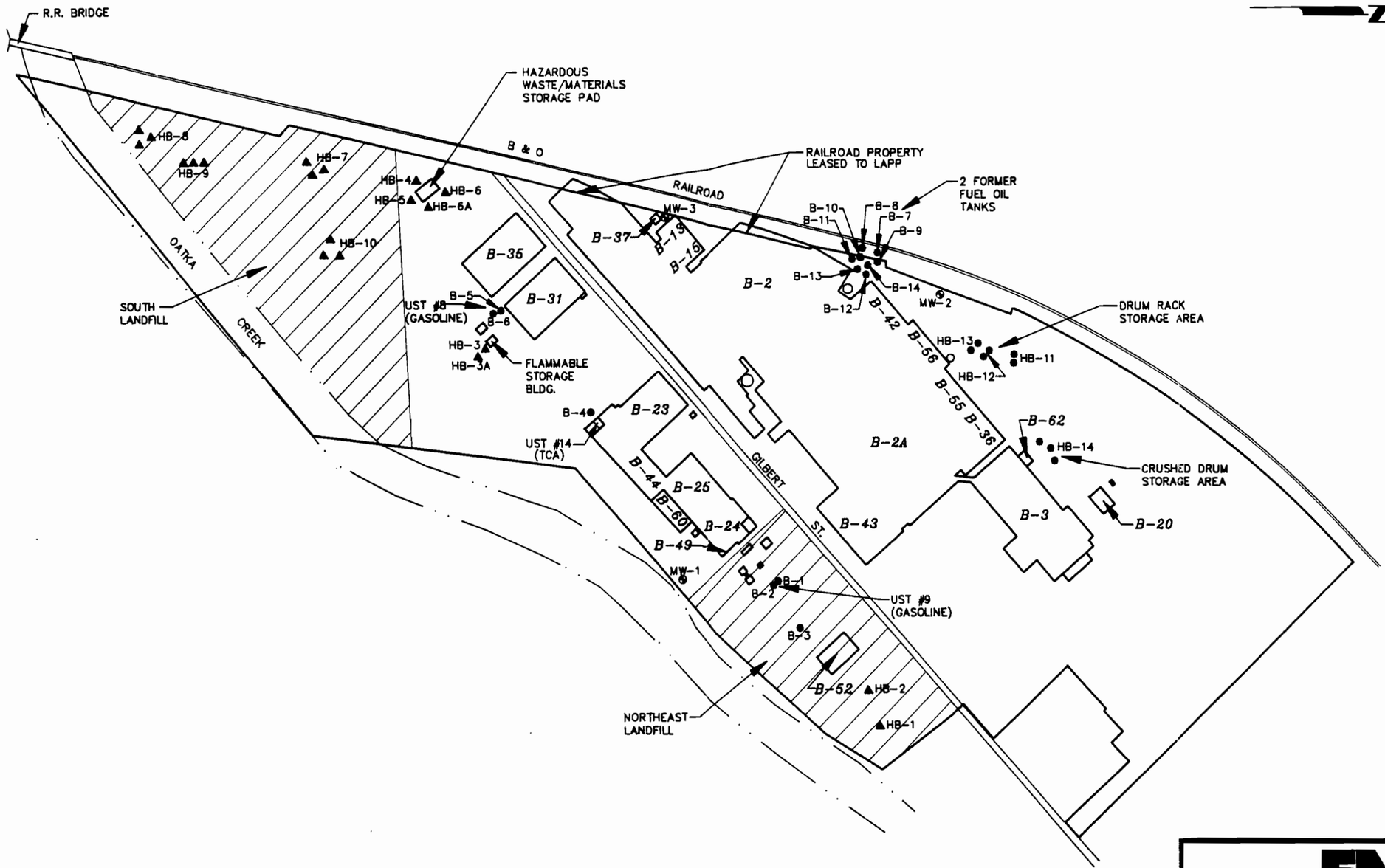
We believe that it is important that the above limitations and perspectives be understood. Site remediation cost estimation is far from being an exact science. With only a very limited time period available to evaluate the subject property, the potential uncertainties inherent in the cleanup cost estimates are enhanced, though it is impossible to pre-determine by how much.

This Report, including all supporting field data and notes (collectively referred to hereinafter as "Information"), was prepared or collected by ENSR Consulting and Engineering (ENSR) for the benefit of its client, Rosenberg & Liebentritt, P.C. and their lender, Heller Financial (hereinafter referred to jointly as "client"). ENSR's client may release the Information to third parties, who may use and rely upon the Report at their discretion. However, any use of or reliance upon the Information by a party other than specifically named above shall be solely at the risk of such third

party and without legal recourse against ENSR, its, or its subsidiaries and affiliates, or their respective employees, officers or directors, regardless of whether the action in which recovery of damages is sought is based upon contract, tort (including the sole, concurrent or other negligence and strict liability of ENSR), statute or otherwise. This information shall not be used or relied upon by a party that does not agree to be bound by the above statement.

1.5 Report Organization

The remainder of this report describes the Phase II field program and analytical testing results achieved (Chapter 2), followed by a discussion of estimated remediation costs in response to the sampling results (Chapter 3). Supporting documentation is contained in the Appendices to this report.



LEGEND
- ● BORINGS
- ▲ HAND AUGER LOCATIONS
- ⊕ MONITORING WELLS

0 300 600
SCALE IN FEET

ENSR CONSULTING & ENGINEERING

FIGURE 2-1
SITE PLAN
LAPP INSULATOR CO.
LEROY, NY

DRAWN BY:	DATE:	PROJECT NO.
J.E.B.	1/23/92	5780-028

5780028B

2.0 DESCRIPTION OF PHASE II FIELD PROGRAM

2.1 Introduction

ENSR initiated the Phase II field investigation program on January 6, 1992. This involved the installation of three monitoring wells these wells and the completion of 11 additional hollow-stem auger borings and 14 hand auger borings from selected locations on the Lapp site. From these locations, three groundwater samples were collected plus a total of forty-seven soil samples (three soil samples from the borings for the monitoring wells and forty-four from the other twenty-five borings). This chapter describes the field program, including procedures used, field observations made, analytical testing protocols employed, and laboratory results received for the indicated samples.

2.2 Field Program

2.2.1 Overview

ENSR conducted an analytical sampling program between January 6 and 13, 1992. This consisted of the installation of three monitoring wells and the subsequent collection of groundwater samples, combined with the collection of forty-seven soil samples from twenty-eight borings that were completed using both hand-augering and a hollow-stem auger drill rig. The locations of these sampling points are shown on Figure 2-1.

Fourteen soil borings (B-1 through B-14) were advanced by hollow-stem auger to completion depths ranging between 10 and 19.5 feet from the ground surface. Split spoon soil sampling was completed in most borings on a continuous basis until refusal was encountered. These samples were used for stratigraphic logging, field headspace screening, and analytical testing purposes. Monitoring wells were installed within three of the soil borings (MW-1 through MW-3). Finally, fourteen hand boring samples (HB-1 through HB-14) were taken in selected areas using a hand auger.

Soil boring logs and well construction records were maintained by the inspecting ENSR geologist throughout the drilling program. These logs contain information on visual and olfactory observations, soil descriptions, depth of samples collected, and other pertinent information. A copy of these logs is contained in Appendix B along with well construction and related field data.

Soil samples were collected using decontaminated split spoon samplers. Within a given boring, one soil sample was selected and collected for laboratory analysis generally based upon the ENSR site geologist's judgement as to the depth at which the most highly contaminated materials appeared to exist. This judgement was based upon visual and olfactory evidence and in some cases, through the use of a portable photoionization detector (PID) which provides readings of total volatile organic compounds present.

Each of the three monitoring wells (MW-1 through MW-3) was constructed of 2-inch diameter PVC well pipe and each was screened, packed, and grouted into place consistent with ENSR's standard well construction procedures. Well screen lengths varied between 5 and 15 feet depending upon the groundwater and soil conditions observed at each location. Screen slot size was 0.010 inches. Wells MW-2 and MW-3 were properly developed within one week after installation. Due to low yielding conditions in well MW-1, this well could not be developed prior to sample collection. In the absence of well purging, the analytical results for MW-1 may not be fully refective of the groundwater quality within the aquifer at this location, but should represent a reasonable approximation of the aquifer conditions. Clean, disposable polyethylene bailers were used to collect all groundwater samples.

2.2.2 Sampling Locations

On the basis of the September 1991 Phase I evaluation, there were a number of areas of potential concern identified at the Lapp site, the most significant of which are itemized below along with the identification of the corresponding sampling points used to characterize each location:

- the stained soil locations near the exterior hazardous waste storage pad, including the associated sump [characterized by three hand auger borings: HB-4 through HB-6];

- the drum rack storage area, located to the west of the rail spur and the clay storage silo area [characterized by hand auger borings HB-11 through HB-13];

- the five former underground storage tanks (UST) in four tank graves; (these tank graves are hereinafter referred to by UST location numbers; UST #8, a former gasoline UST located to the east of Building 35; UST #9, a former gasoline UST, located to the northeast of Building 24 in the north landfill area; UST #14, a former TCA tank, located to the south of Building 23; and two former 20,000-gallon fuel oil tanks, located to the west of Building 2 and 2A); all of these tanks were removed

prior to regulations requiring governmental observation and approval of such removals [characterized by borings B-1 and B-2; B-4 through B-14];

- the drainage ditch running from the hazardous waste (materials) storage pad [characterized by hand auger boring HB-5];

- the on-site landfill located along the southerly end of the site, south of the hazardous waste (materials) storage pad and the shipping and receiving areas [herein after referred to as the south landfill and characterized by hand auger borings HB-7 through HB-10];

- the second on-site landfill located along the northeasterly side of the site and north of the high voltage lab area [hereinafter referred to as the northeast landfill and characterized by monitoring well, MW-1; hand auger boring HB-1; and boring B-3];

- the area near the scupper at the rear of the flammable storage satellite building [characterized by hand auger borings, HB-3 and HB-3A]; and

- the area west of the special porcelain building where discarded drums were observed [characterized by hand auger boring HB-14].

Heller Financial and their outside counsel had raised issues concerning other site situations, including the following:

- PCB sampling because of the presence of electrical transformers on-site;

- Sampling of interior floor drains within process manufacturing areas; and,

- Sampling of the bottoms of three on-site settling ponds.

Based on pertinent information regarding site operations, ENSR recommended that no sampling be conducted with respect to the above issues. The rationale for this decision is as follows:

- PCB Sampling: Based upon transformer oil laboratory analyses provided by Lapp (March 30, 1987; August 8, 1988) and other information, it appears that two transformers are of the dry type, with twelve (12) of the remaining thirteen (13) transformers being non-PCB contaminated (<50 PPM) oil transformers. The remaining transformer is believed to be a 10KVA oil-cooled, pole mounted transformer located near the Niagara-Mohawk substation; its PCB status is not

known. Of the twelve (12) transformers originally tested by Lapp, only three (3) were initially found to contain PCBs in a concentration greater than 50 ppm. These involved roof top transformers that were subsequently retrofilled and later reclassified in 1988 as non-PCB transformers. There is no known history of leakage from any of the thirteen (13) exterior oil-cooled transformers. The Phase I visual inspection did not result in the identification of any leaks or stains around any of the ground-level exterior transformers. Although no physical inspection was made of the roof-top transformers, each has been retrofilled so that PCB levels are less than 50 ppm, the regulatory threshold. Facility personnel reported that Lapp has not historically used PCB containing oils in the production of transformer bushings. The U.S. EPA's and N. Y.'s cleanup policy for PCBs is 50 ppm in soils. In short, there is no reason to believe that significant PCB contamination exists on or beneath the site.

- Floor Drain Sampling: There are numerous floor drains located within various manufacturing areas of the site buildings. Most were apparently sealed; these drains reportedly discharged to Oatka Creek through one or more of the existing discharge pipes. Although sediment sampling near the Oatka Creek where these drains historically discharged and/or soil sampling from below the outfall locations may provide information on potential contamination problems, there are several access-related constraints that make such sampling difficult. These limitations include the steepness of the creek bank and the relatively elevated position of the outfall locations above the creek level. Creek sampling was considered to be of limited value. Given the relatively fast flow of the water, volatile organic compounds would not likely be detectable.

- Settling Pond Sampling: The clay sediments from the settling ponds recently had been excavated and stockpiled on-site by facility personnel in preparation for receiving approval from the New York State Department of Environmental Conservation (NYSDEC) to use the materials for "beneficial use." Before excavation samples from the settling ponds were submitted by Lapp for laboratory analyses utilizing Toxicity Characteristic Leaching Procedure (TCLP) methodology in July 1990. The analytical data, dated July 11, 1990, indicate that the samples passed TCLP criteria (see Phase I report; Appendix D). As a result of these favorable results, Lapp decided to apply for a beneficial use permit from NYSDEC. This would allow the facility to use the material for landfill cover and capping material. Samples of the clay sediments were reportedly taken by facility personnel and submitted for analysis in accordance with NYSDEC procedures for "beneficial use" classification. Facility personnel are awaiting the results of the analytical testing.

Therefore, in view of the earlier described TCLP testing results, there appeared to be no substantive reason to conduct additional testing of these settling pond residuals.

2.2.3 Field Observations

Site Geology

Based on soil boring and hand auger observations obtained during the implementation of the sampling program, the geology at the site consists of three distinct formations:

- In designated fill areas and some active facility areas, fill material composed of a mixture of sand, gravel, silt, clay, brick, coal, cinders, and porcelain insulator fragments were found to a depth of approximately eight to twelve feet below the surface; these areas include the northeast and south landfills and those areas associated with tank removals;

- The natural material at the site consists of a damp to moist, silt with sand and gravel (glacially derived deposits) to a depth of approximately fourteen feet below the surface; this unit increases in density with depth; and

- Bedrock, which consists of weathered and fissile shale (Levanna Shale of the Skaneateles Formation).

In short, the site's surficial geology is heterogeneous, with bedrock typically being encountered between a depth of eight to fourteen feet below the surface.

Groundwater

Three monitoring wells were installed at the facility. One of these wells (MW-3) was completely screened in the overburden sediments. The remaining two wells were screened over the bedrock/overburden interface. The depth to groundwater ranges from approximately 2.7 feet to 14.6 feet below the ground surface. Monitoring well MW-1 appeared to be dry during the drilling and installation; however, when the well was inspected six days after the installation, groundwater was found at 16.2 feet below ground surface, and the well contained 3.4 feet of water. Monitoring well MW-2 was also dry during the drilling and installation; however when the well was inspected the following day, approximately three feet of water was contained in the well. The groundwater level continued to gradually rise, and stabilized at approximately 7.0 feet below ground surface, and contained approximately 3.5 feet of water. Well MW-3 indicated

groundwater during the drilling and well installation. This well also experienced a similar gradual rise in groundwater level, stabilizing at 2.5 feet below ground surface, and containing 16.8 feet of water. The limited appearance of groundwater during drilling and well installation followed by the gradual rise in water levels indicate that the unit is of a low permeability, and that the wells would continue to be low yielding. The groundwater appears to be located within the glacial deposits overlying the shale unit underlying the site. No bedrock wells were installed as part of this investigation.

Based on the site topography, the groundwater flow at the eastern portion of the site appears to be in a easterly direction toward Oatka Creek, which flows along the eastern property line of the Lapp site. The groundwater flow at the western portion of the property is less well defined. Although the Oatka Creek may also be the discharge point for groundwater from the western portion of the site, there is also a small unnamed stream located further to the west of the site. This stream flows in a northerly direction, the same direction as Oatka Creek. The groundwater from the western portion of the site may flow in the direction of this unnamed stream. Lastly, the groundwater encountered at the site may be a perched condition, with the quantity of groundwater being affected by seasonal variations. The groundwater encountered in these overburden sediments did not appear to be hydraulically connected to the underlying bedrock unit, however, no bedrock wells were installed to confirm this assessment.

Although the exact flow directions could not be determined from the data obtained during this investigation, this does not materially affect the conclusions reached and the remediation cost estimates described in Section 3.0. In the first place, there are no other apparent sources in the vicinity of the Lapp site. Therefore, off-site contributors are not a consideration in this case. Second, knowledge of flow direction, provide valuable information for the purposes of designing the specifics of groundwater remediation scheme, but does not greatly influence the conceptual design itself. Moreover, ENSR cost estimates take into consideration the uncertainties of the local groundwater flow regime.

General Field Observations

Various observations were made at each of the boring locations during the field program. Based upon these observations only, certain generalizations can be made regarding the presumed vertical and horizontal extent of contamination:

- Loosely consolidated fill materials composed of either sand and gravel, crushed stone, or a mixture of soil, ash, cinders and insulator fragments were found in several areas of the site. The sand, gravel, and crushed stone fill was generally observed to be associated with past tank removals, with these materials having been used as backfill.

The mixed fill material was also observed in two extensive filled areas on the property. Insulator fragments (porcelain), based on field observations, may occupy approximately 20 percent of the fill volume present within the two latter fil areas (northeast and south landfills).

- More than 100 abandoned 55-gallon drums were observed clustered on the ground surface within the south landfill. The majority of these drums are empty and were reported by plant personnel to have been used for parts storage. Five other drums were observed within the vicinity of the larger cluster and were lying on their sides. One of these was severely corroded. The remaining four appeared to contain frozen liquid (not directly observed). The label, 1,1,1-trichloroethane, was noted on two of these liquid-containing drums.

- Field HNu headspace screening was most effective in areas which previously contained gasoline storage tanks. In one area, UST #8 (300- gallon gasoline tank), HNu data indicated the presence of volatiles at between six and ten feet in depth which is approximately equivalent to or below the former base of the tank. Headspace VOC data were noted to decrease with vertical depth and horizontal distance from the former tank position (although TPH data indicate an increase with horizontal distance). Headspace data of more limited value were obtained from samples collected within other tank areas (fuel oil tanks).

- In one large dual tank grave (two 20,000-gallon fuel oil tanks), backfill material was observed to be contaminated with hydrocarbons to an approximate depth of 13 feet where the base of the fill was encountered and an abrupt decrease in observable contamination was noted. The backfilled tank grave is believed to act as a basin for water which infiltrates from the ground surface. Up to three feet of saturated (water and oil) materials were noted within the former tank area. Information from soil borings completed around the assumed perimeter of the tank grave indicated a much lesser degree of hydrocarbon contamination.

2.3 Laboratory Analysis

From the drilling and excavating activities, a total of forty-seven soil samples, and five groundwater samples, three from the monitoring wells and two (a field and trip blank) for quality control/quality assurance purposes, were collected for laboratory analyses. Based upon the

suspected contaminants involved, as derived from both the Phase 1 investigation and observations made in the field during the drilling activities, an analytical program was developed.

In selecting the analytical tests, the intent was not to capture all potential contaminants that might be found in a particular sample, but rather to focus on the key ones only. Testing parameters for the soil samples included total petroleum hydrocarbons (TPH) using EPA Method 600.418.1, volatile organic compounds (VOC) using EPA Method 8240, and priority pollutant metals using various EPA approved methods described in EPA SW-846. Groundwater samples were analyzed for VOC and priority pollutant metals using the afore referenced methods. Groundwater samples were to be analyzed for TPH only if a sheen was observed on the water. No sheens were observed, therefore no TPH analyses were performed on the groundwater samples.

All samples were placed in the appropriate laboratory prepared jars, labeled with the sample location, job number, date, and sampler's name. The groundwater samples collected for metals analyses were appropriately preserved in the field prior to shipment. All samples were submitted to TMA/Skinner & Sherman of Waltham, MA. for analyses. The laboratory performed all analytical tests using standard U.S. EPA protocols and instrumentation.

2.4 Analytical Results

The laboratory results from the sampling program are summarized in Tables 2-1 (Soils--VOCs and TPH), 2-2 (Soils--metals) and 2-3 (Groundwater--VOCs and metals). These tables are intended to only highlight the significant findings. A complete set of the laboratory reports are contained in Appendix C (Soils) and D (Groundwater).

2.4.1 Soils

Volatile Organic Compounds

Volatile organic compounds (VOC) were detected in several areas of the site. Volatile Organic Compound concentrations and the sampling locations where these compounds were found are plotted on Figure 2-2. VOCs were found in all of the former underground storage tank (UST) locations. VOC detected in these areas included 1,1,1-Trichloroethane, trichloroethene, 1,2-Discloroethane (former UST #9); 1,1-Dichloroethene, 1,1,1-Trichloroethane, and Trichlorothene (former UST #14); 1,1-Dichloroethene, 1,2-Dichloroethane, 1,1,1-Trichloroethane, trichloroethene, benzene, toluene, ethylbenzene, and xylene (former UST #8); and ethylbenzene and xylene (two former fuel USTs). Benzene, toluene, xylene, and ethylbenzene (BTEX) are components of petroleum products, including gasoline. The remaining VOC detected are chlorinated solvents.

Table 2-1
Soil Concentrations

			Volatile Organic Compounds (ppb)													TPH
Area	Boring ID	Depth	Chloroform	1,1, Dichloroethane	1,1, Dichloroethene	1,1,1 Trichloroethane	Trichloroethene	1,1,2 Trichloroethene	Tetrachloroethene	1,2 Dichloroethene	Benzene	Toluene	Ethyl Benzene	m & p-Xylene	o-Xylene	2-Butanone	TPH (ppm)
Preliminary Standard			100	7.0	NS	200	5.0	5.0	5.0	100	5.0	1000	700		10,000	NL	100
Northeast Landfill	HB-1/S-1					20											120
	HB-2/S-1					28	6.6			5.5							412
	B-3/S-1	0-12'	30														67.5
UST #9 (gas)	B-1/S-1	8-10'				210			18								71.5
	B-2/S-1	8-10'				170											113
	B-2/S-2	10-12'				86	170			11							212
UST #14 (TCA)	B-4/S-1	2-12'		250	41	8200	170	24	24								189
	B-4/S-2 (dup.)	2-12'		310	49	20000	100	26	19								303
UST #8 (gas)	B-5/S-1	6-8'		100		130				41	14	16	55	330	150		239
	B-5/S-2	12-14'		16		1000	2700			32							186
	B-6/S-1	6-8'												32	23		32.4
	B-6/S-2	10-12'				380	7000										476
Flammable Storage Bldg.	HB-3/S-1					42	12										572
	HB-3A/ S-1					17											<25
Hazardous Waste/ Materials Pad	HB-4/S-1					450											11,600
	HB-6/S-1					160						12					10,800
Sump Drainage Channel	HB-5/S-1					10			6.7								3560
	HB-5/S-2					20			6.2								1550
South Landfill Area	HB-7/S-1					11											74.6
	HB-8/S-1					17				20		9.1					34.5
	HB-9/S-1					14				17		10					125
	HB-10/S-1					12	19		13		7.5						4150

Table 2-1
Soil Concentrations

Area	Boring ID	Depth	Volatile Organic Compounds (ppb)														TPH
			Chloroform	1,1, Dichloroethene	1,1, Dichloroethene	1,1,1 Trichloroethene	Trichloroethene	1,1,2 Trichloroethene	Tetrachloroethene	1,2 Dichloroethene	Benzene	Toluene	Ethyl Benzene	m & p-Xylene	o-Xylene	2-Butanone	TPH (ppm)
Preliminary Standard			100	7.0	NS	200	5.0	5.0	5.0	100	5.0	1000	700		10,000	NL	100
Former Fuel Oil Tanks	B-7/S-1	6-10'															46.5
	B-7/S-2	10-14'															47.0
	B-8/S-1	4-18.6'															60.0
	B-9/S-1	10-13.8'											140	420	12		1420
	B-10/S-1	12-13'											350		11000		2430
	B-10/S-2	13-14'															402
	B-11/S-2		VOA Not Analyzed														2200
	B-11/S-5		VOA Not Analyzed														64
	B-12/S-1		VOA Not Analyzed														106
	B-12/S-4		VOA Not Analyzed														<25
	B-13/S-1		VOA Not Analyzed														224
	B-13/S-5		VOA Not Analyzed														109
	B-14/S-1		VOA Not Analyzed														176
	B-14/ S-6A		VOA Not Analyzed														1010
	B-14/ S-6B		VOA Not Analyzed														98.5
Drum Rack Area	HB-11/S-1																21500
	HB-11/S-2																1700
	HB-12/S-1						13					10		6.8			18700
	HB-13/S-2											7.7					67.8
Discarded/ Crushed Drum Area	HB-14/S-1						170									300	13300
	HB-14/S-2															1100	302
	HB-14/S-3																68.6
MW-1	MW-1/S-1					73											219
	MW-1/ S-2			22	49	310	25										

NS No Standard
NL No Listing

Table 2-2
Metal Soil Concentrations (ppm)

Area	Boring ID	Depth	Ag	As	Cr	Cu	Ni	Pb	Zn	Hg	Cd	Se	Be
Preliminary Standard													
Northeast Landfill	HB-1/S-1			16.7	9.21	21.9	12.8	22.5	64.8				
	HB-2/S-1			10.5	4.27	7.12	6.30	19.3	23.4				
	B-3/S-1	0-12'		12.9	10.4	18.8	9.68	25.1	69.2				
UST #9 (gasoline)	B-1/S-1	8-10'	Not Analyzed										
	B-2/S-1	8-10'											
	B-2/S-2	10-12'											
UST #14 (TCA)	B-4/S-1	2-12'			10.3	33.8	12.9		48.2				
	B-4/S-2 (dup.)	2-12'			10.6	21.0	11.6	20.0	54.9				
UST #8 (gasoline)	B-5/S-1	6-8'	Not Analyzed										
	B-5/S-2	12/14'											
	B-6/S-1	6-8'											
	B-6/S-2	10-12'											
Flammable Storage Bldg.	HB-3/S-1				5.38	7.32	4.68	10.4	49.4				
	HB-3A/S-1			12.2	10.2	10.4	9.97	12.9	46.7				
Hazardous Waste/ Materials Pad	HB-4/S-1				16.2	87.4	21.0	36.2	209		16.41		
	HB-6/S-1			13.3	9.91	12.2	8.75	55.1	82.0			12	
Sump Drainage Channel	HB-5/S-1		88.4	12.8	17.5	108	23.0	84.6	375		17.0		
	HB-5/S-2			15.8	10.4	20.7	12.9		83.6		5.72		
South Landfill Area	HB-7/S-1			26.8	13.06	17.6	12.5	37.9	103				
	HB-8/S-1			66.9	18.2	6.20	16.0	39.1	45.1				
	HB-9/S-1			20.7	21.9	44.9	8.51	45.5	95.9	1.49			
	HB-10/S-1			17.3	11.1	15.5	10.9	13.6	67.2				

Table 2-2
Metal Soil Concentrations (ppm)

Area	Boring ID	Depth	Ag	As	Cr	Cu	Ni	Pb	Zn	Hg	Cd	Se	Be
Former Fuel Oil Tanks	B-7/S-1	6-10'											
	B-7/S-2	10-14'											
	B-8/S-1	4-18.6'											
	B-9/S-1	10-13.8'											
	B-10/S-1	12-13'											
	B-10/S-2	13-14'											
	B-11/S-2		Not Analyzed										
	B-11/S-5		Not Analyzed										
	B-12/S-1		Not Analyzed										
	B-12/S-4		Not Analyzed										
	B-13/S-1		Not Analyzed										
	B-13/S-5		Not Analyzed										
	B-14/S-1		Not Analyzed										
	B-14/S-6A		Not Analyzed										
	B-14/S-6B		Not Analyzed										
Drum Rack Area	HB-11/S-1			12.1	5.24	11.2	7.84		57.5				
	HB-11/S-2			19.3	9.74	15.2	13.2		65.9				
	HB-12/S-1				7.25	17.1	7.85	22.2	85.5				
	HB-13/S-1				12.8	9.23	7.95	44.4	29.4				
Discarded/ Crushed Drum Area	HB-14/S-1			27.4	14.5	27.6	10.6	46.6	68.2				
	HB-14/S-2			19.1	7.91	7.67	7.31	49.0	40.5				
	HB-14/S-3			12.5	10.9	7.48	8.31		38.8				
MW-1	MW-1/S-1			12.5	9.75	48.3	10.8	23.1	418	0.84			
	MW-1/S-2		Not Analyzed										

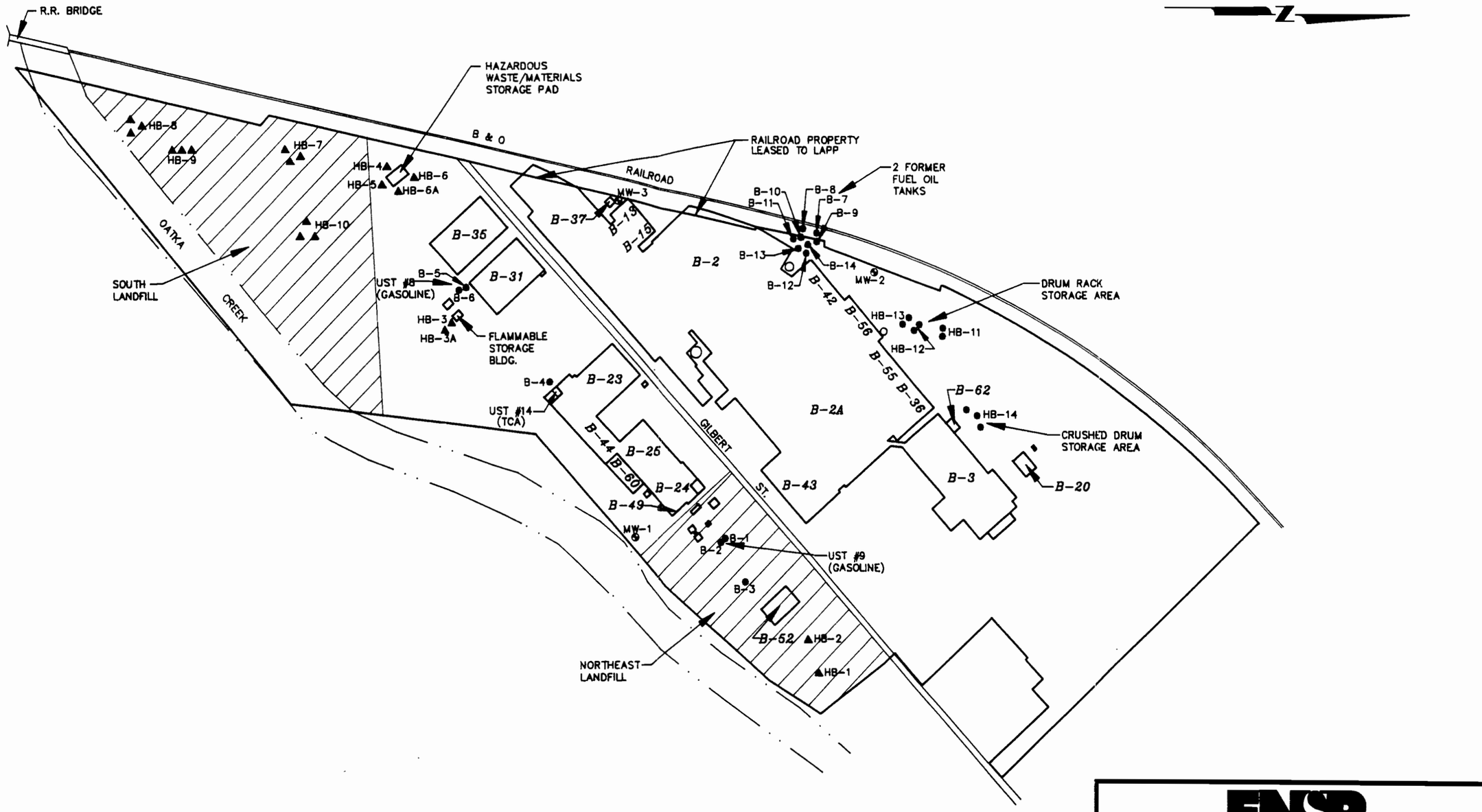
Table 2-3
Groundwater - Volatile Organic Compounds (ppb) and Metals Concetrations (ppm)

Area	Boring ID	Depth	1,1, Dichloroethene	1,1, Dichloroethene	1,1,1 Trichloroethene	Trichloroethene	1,2 Dichloroethene	Benzene
Preliminary Standard			7.0	NS	200	5.0	100	5.0
MW-1			22	1300	410	34	16	6.2
MW-2					8.1			
MW-3						9.0		

NS No Standard
NL No Listing

Area	Boring ID	Depth	As	Cr	Cu	Ni	Pb	Zn	Hg	Se	Be
Preliminary Standard			0.05	0.1	1.3	0.1	0.005	NS	0.002	0.05	0.001
MW-1					0.0174			0.0299			0.0055
MW-2			0.0158	0.174	0.317	0.241	0.151	0.928	0.00059		0.0051
MW-3			0.0064		0.0244	0.0204	0.0150	0.0702			

NS No Standard



LEGEND
- ● BORINGS
- ▲ HAND AUGER LOCATIONS
- ⊕ MONITORING WELLS

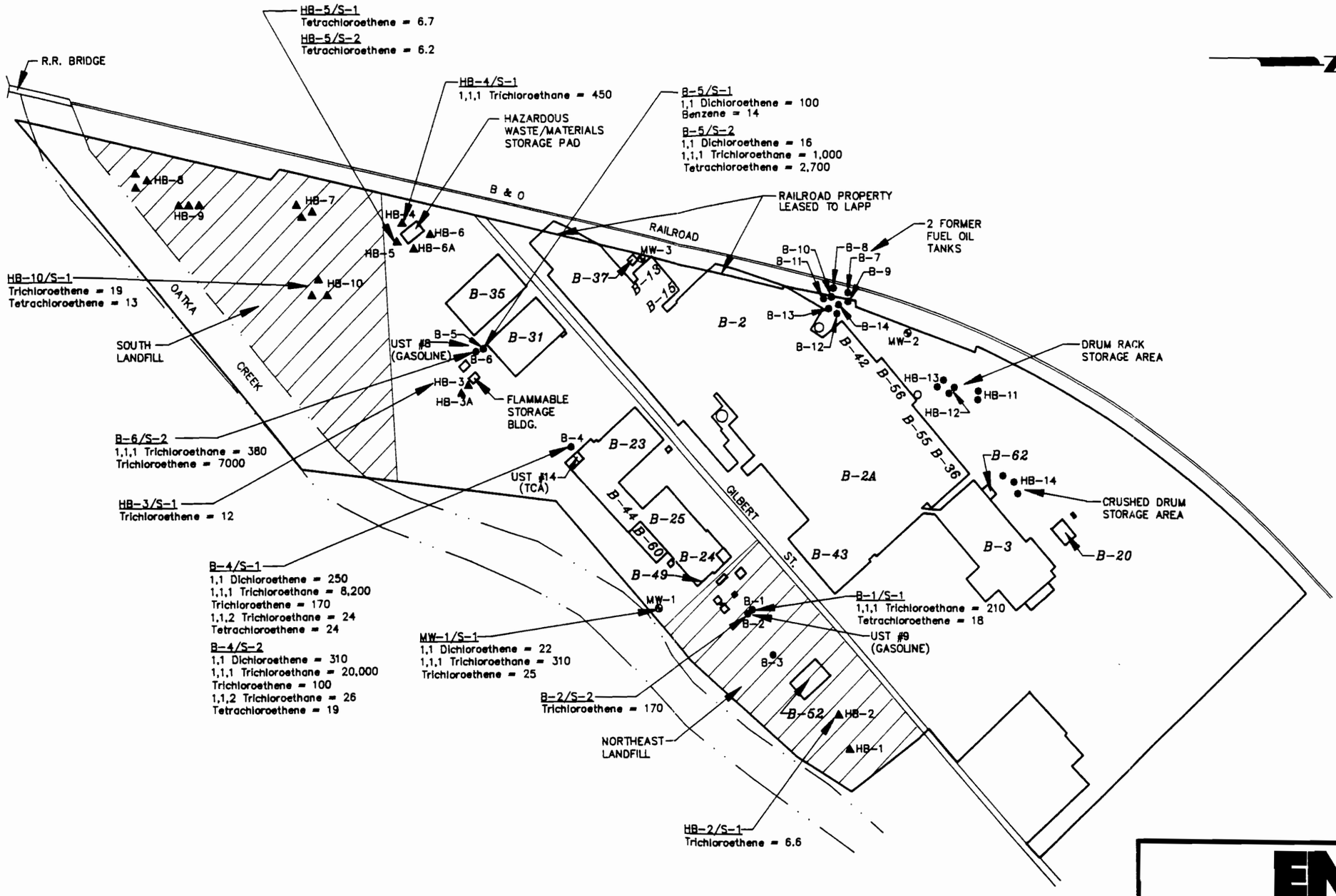
0 300 600
SCALE IN FEET

ENSR CONSULTING & ENGINEERING

FIGURE 2-1
SITE PLAN
LAPP INSULATOR CO.
LEROY, NY

DRAWN BY:	DATE:	PROJECT NO.
J.E.B.	1/23/92	5780-028

5780028B

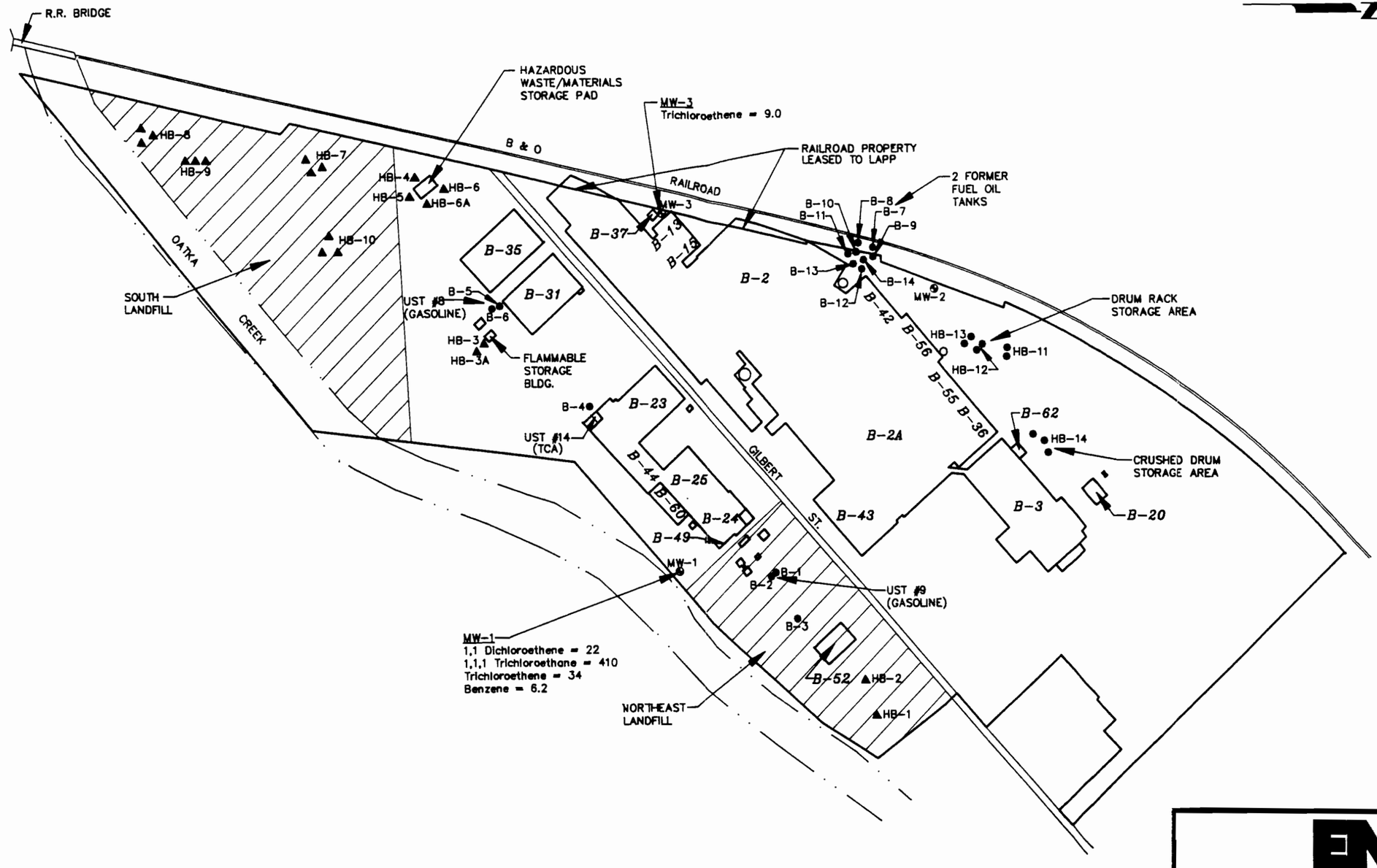


ENSR CONSULTING & ENGINEERING

FIGURE 2-2
VOLATILE ORGANIC COMPOUND SOIL CONCENTRATIONS (ppb) EXCEEDING EPA DRINKING WATER STANDARDS (APRIL 1991) LAPP INSULATOR CO.

DRAWN BY:	DATE:	PROJECT NO.
J.E.B.	1/23/92	5780-028

578006B



ENSR CONSULTING & ENGINEERING

FIGURE 2-5
VOLATILE ORGANIC COMPOUNDS GROUNDWATER CONCENTRATIONS (ppb) EXCEEDING EPA DRINKING WATER STANDARDS (APRIL 1991) LAPP INSULATOR CO.

DRAWN BY:	DATE:	PROJECT NO.
J.E.B.	1/23/92	5780-028

78005B

VOCs were also found at the other sampling locations at the facility, including the northeast and south landfill areas, the flammable storage building, the hazardous waste materials storage pad area, the drum rack storage area, flammable storage building, the area of discarded and crushed drums, and the soils obtained from the boring for monitoring well MW-1.

Of these areas where VOC were detected, all had some VOC in levels exceeding the US EPA April, 1991 Drinking Water Standards, with the exception of the discarded/crushed drum area, the drum rack storage area, and the tank grave from two former 20,000-gallon fuel oil USTs.

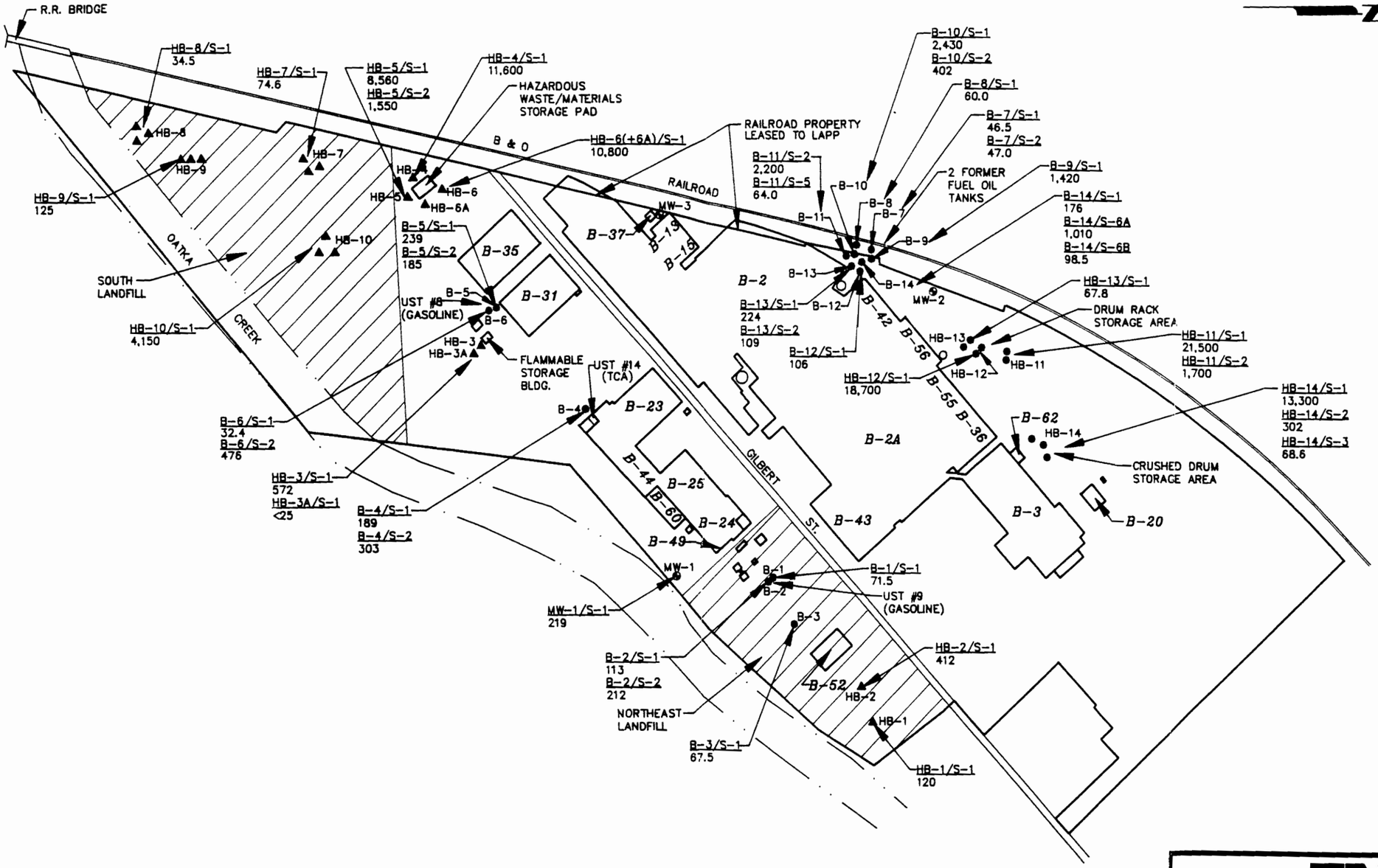
Telephone conversations with NYSDEC personnel indicate that clean-up levels at sites identified in New York are site-specific and are evaluated on a case-by-case basis. In evaluating the VOC in soils, the NYSDEC uses the US EPA Drinking Water Standards as a target clean-up level for contaminated soils. The rationale is the protection of the groundwater resources of the state.

Total Petroleum Hydrocarbons

Elevated levels of total petroleum hydrocarbons (TPH) were found at all of the general sampling locations at the facility (i.e. northeast landfill, south landfill, former UST locations, etc.). All of these general sampling locations also indicated TPH levels exceeding 100 ppm. The highest levels of TPH contamination were found in the discarded/crushed drum area, the drum rack area, the sump drainage channel, and the hazardous waste storage pad. The highest levels of contamination from these areas ranged from 8,560 ppm at the sump drainage channel, to 21,500 ppm at the drum rack area. The TPH concentrations are found on Figure 2-3.

Metals

Varying levels of elevated metals were found at the facility. Although some of these metals were found at levels exceeding the common range of trace chemical element content of natural soils published by the US EPA Office of Solid Waste and Emergency Response Hazardous Waste Land Treatment, the values were all below the proposed RCRA Corrective Action Levels as expressed in 40 CFR 264.521. Those areas where levels exceeding these common ranges were reported are the sump drainage channel (silver; cadmium), south landfill (mercury; one sample out of four from the area; arsenic; one sample out of four); hazardous waste storage pad (cadmium). Metals concentrations for both soil and groundwater samples are found on Figure 2-4.



LEGEND

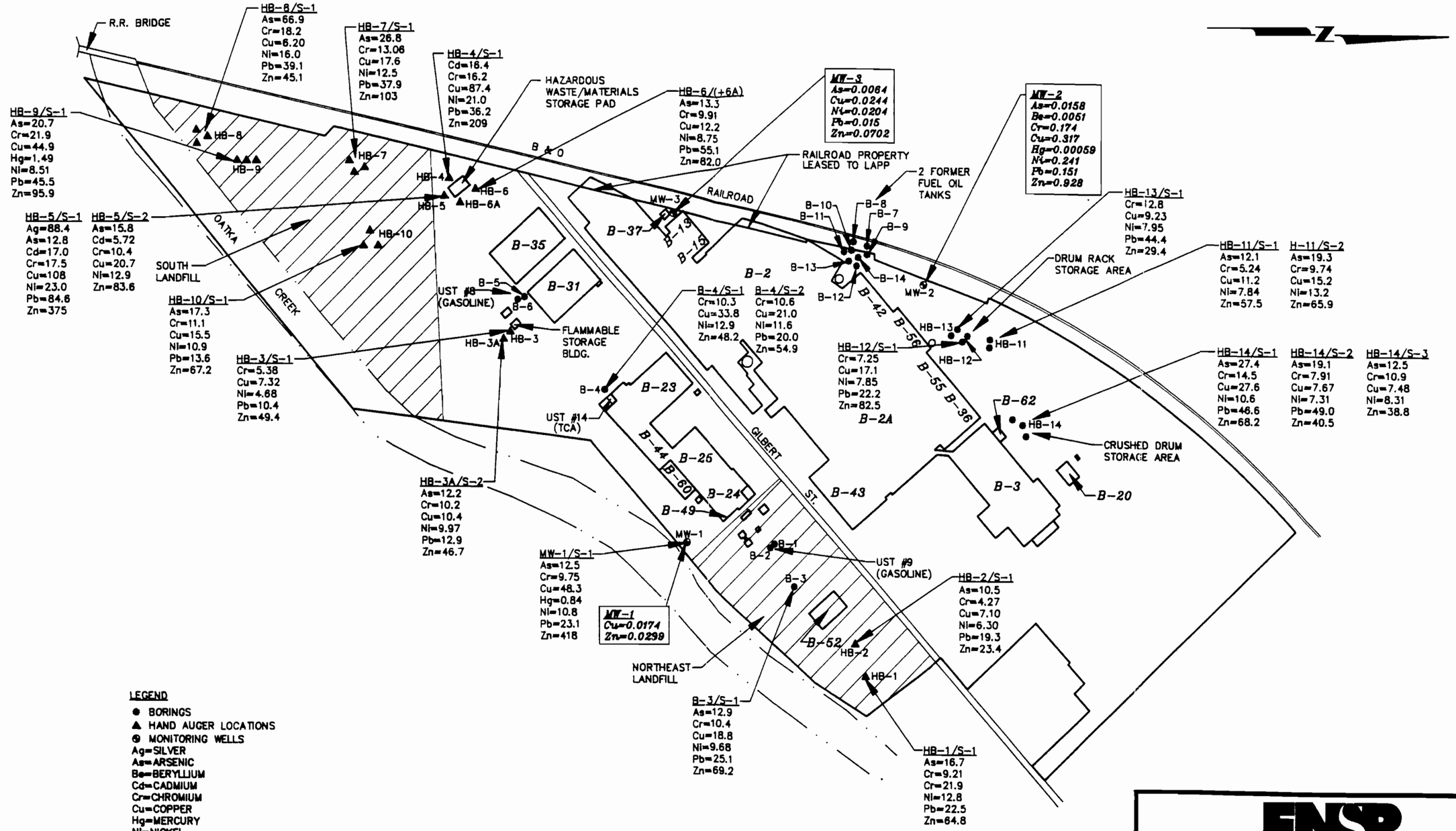
- ● BORINGS
- ▲ HAND AUGER LOCATIONS
- ⊕ MONITORING WELLS

ENSR CONSULTING & ENGINEERING

FIGURE 2-3
TOTAL PETROLEUM HYDROCARBON SOILS CONCENTRATION (ppm)
LAPP INSULATOR CO.

DRAWN BY:	DATE:	PROJECT NO.
J.E.B.	1/23/92	5780-028

8004B



LEGEND

- ● BORINGS
- ▲ HAND AUGER LOCATIONS
- ⊕ MONITORING WELLS

Ag=SILVER
As=ARSENIC
Be=BERYLLIUM
Cd=CADMIUM
Cr=CHROMIUM
Cu=COPPER
Hg=MERCURY
Ni=NICKEL
Pb=LEAD
Sb=ANTIMONY
Se=SELENIUM
Tl=THALLIUM
Zn=ZINC

MW-1
Cu=0.0174
Zn=0.0299

GROUNDWATER DATA

0 300 600

SCALE IN FEET

ENSR CONSULTING & ENGINEERING

FIGURE 2-4
PRIORITY POLLUTANT METALS SOILS AND GROUNDWATER CONCENTRATIONS (ppm)
LAPP INSULATOR CO.

DRAWN BY:	DATE:	PROJECT NO.
J.E.B.	1/23/92	5780-028

78003B

2.4.2 Groundwater

Volatile Organic Compounds

The groundwater samples from the three monitoring wells installed at the site were submitted for VOC and priority pollutant metals analyses. The samples from all three wells indicated elevated levels of VOC. The concentrations of these compounds and their sampling locations are found on Figure 2-5. Wells MW-1 and MW-2 contained levels of trichloroethene inexceedance of US EPA Drinking Water Standards. Well MW-1 also contained levels of 1,1 dichloroethane, 1,1,1 trichloroethane, and benzene exceeding the Drinking Water Standards. Pursuant to conversations with NYSDEC personnel, groundwater remediation levels are also site specific and handled on a case-by-case basis, however, the criteria for protection of the states's groundwater are the federal Drinking Water Standards.

Metals

Monitoring wells MW-2 and MW-3 contained levels of lead which exceeded the federal Drinking Water Standards. Well MW-2 also contained levles of chromium, nickel, and beryillium which exceeded the federal standards. As previously stated, pursuant to conversations with NYSDEC personnel, groundwater remediation levels are also site specific and handled on a case-by-case basis, however, the criteria for protection of the states's groundwater are the federal Drinking Water Standards. Metals concentrations for both soil and groundwater samples are found on Figure 2-4.

3.0 REMEDIATION COST ESTIMATES

3.1 Introduction

Based upon the site observations, combined with the results of the analytical testing program, "reasonable worst case" estimates were prepared to remediate various identified site conditions.

The reasonable worst case represents the highest remediation costs that ENSR believes are reasonably possible. This means that the chances of the remediation costs being higher than the estimate are deemed reasonably small, but not zero. Of all the damaging contingencies that might take place, the reasonable worst case estimate takes into account only those whose occurrence is considered reasonable to assume. We believe that the use of the reasonable worst case reflects an acceptably conservative approach, with the most likely cost estimate being potentially less, and possibly significantly so, particularly if successfully agency negotiations can be achieved.

The remediation cost estimates presented herein were prepared through developing a technically feasible remediation program and utilizing reasonable, upper range costs for the various techniques selected. However, in preparing these estimates, ENSR did not assume the use of the most costly remedial technique, but rather the most cost-effective one involving proven technology consistent with known site conditions. For instance, the petroleum contaminated soils can be effectively treated through off-site land disposal, incineration (on or off-site) or on-site biodegradation. Biodegradation was selected because the unit costs are significantly lower and the observed site conditions are such that this lower cost option appears to be both feasible and effective.

Finally, full consideration has been given to applicable New York regulations and interpretation of the New York State Department of Environmental Conservation (NYSDEC) clean-up policies. The conceptual remedial program presented in this report was reviewed over the telephone with NYSDEC representatives in order to establish its likely acceptability in view of state regulations.

The following subsections describe the estimated soil and groundwater remediation costs, including the assumptions employed to produce these estimates. The estimates are addressed according to the separate treatment approaches to be selected in order to remediate the various identified site conditions. In general, the NYSDEC's regulatory focus is the protection of groundwater resources; this is the driving impetus for cleanup activities, including those involving soils. Therefore, the focus of our assessment of what requirements remediation ultimately is

based upon situations that are likely to have an impact on local groundwater given observed soil conditions, concentration levels detected, and the nature and extent of possible sources. This also means that there is the real potential for less remediation to be required, particularly if future studies indicate that groundwater impacts are far more limited than is being assumed at this point and if the results of a formal risk assessment also supports such a conclusion.

On the basis ENSR's analysis, four broad remediation situations were identified and each is addressed; these include the following:

- Soils containing petroleum hydrocarbons (with no appreciable non-petroleum related volatile organic compounds); these contaminated materials are situated in the dual tank grave associated with the former presence of two 20,000-gallon underground fuel oil tanks;

- Soils containing petroleum and non-petroleum related volatile organic compounds; these contaminated materials are found in a number of site locations, including the areas near the flammable materials storage building, the hazardous waste storage pad (including sump), the drum storage rack, the discarded drum area, and three former underground storage tanks (referenced as USTs #'s 8, 9, and 14);

- Soils situated in the so-called Northeast and Southern landfill areas; and

- Site groundwater

3.2 Soils Containing Petroleum Hydrocarbons

The first treatment unit involves soils that only contain petroleum hydrocarbons. These materials largely are found in the dual tank grave area that surrounds the two former 20,000-gallon fuel oil underground storage tanks (USTs). The total volume of impacted soils are estimated to be around 600 yards^3. These soils may be effectively treated by landfarming. Alternative remedial techniques such as in-situ bioventing may be more cost effective. However, based on the absence of data on the porosity of soils in this location (i.e., sufficient porosity must exist in order to allow the effective passage of air and oxygen for bioventing), landfarming was selected as a reasonable approach that is feasible from both a technical and regulatory perspective.

Landfarming would involve spreading the affected soils on an available area of the site, adding nutrients and water to promote the growth of petroleum consuming bacteria, and occasionally "mixing" the material using a discing machine. As a result of the petroleum exclusion under the

Resource Conservation and Recovery Act (RCRA), no RCRA permit would be required in order to implement a landfarming program.

3.2.1 Key Assumptions

The cost estimate for landfarming the affected soils is based upon several assumptions, all of which are identified as follows:

- Soils may be treated on site, through the petroleum exclusion, by landfarming.
- Excavations do not require structural shoring.
- Cleanup criteria of 100 ppm total petroleum hydrocarbons (TPH) will be acceptable to the NYSDEC for semi-volatile compounds (which are unspecified).
- Excavations are backfilled with imported gravels.
- Site preparation for landfarm is limited to grading, brush clearing, etc.
- Grading and brush clearing can be accomplished using a D-8 dozer in one day.
- No liner will be required for the landfarm area.
- There is an assumed soil swell factor of 1.25.

Based upon current knowledge of site conditions, coupled with our discussions with NYSDEC officials, all of the above assumptions appear to be reasonable.

3.2.2 Estimated Costs

The cost estimates presented herein are engineering cost estimates only. In other words, no vendors were contacted to solicit bids. The line item costs are based on ENSR's experience with similar projects of this nature.

Item	Unit Costs	Totals
Mobilization		$5,000
Contractor Oversight		$5,000

Item	Unit Costs	Totals
Excavation and transport to landfarm	550-632 yds.^{3} x \$5/yd.^{3}	\$2,750 - \$3,160
Treatment	550-632 yds.^{3} x \$50 - \$90/yd.^{3}	\$27,500 - \$56,880
Backfill Excavations	550-632 yds.^{3} x \$15/yd.^{3}	\$8,250 - \$9,480
Sampling, Documentation, Air Monitoring		\$15,000
Engineering, Work Plans, Agency Contacts		\$15,000
Sub-Total		**\$78,500 - \$109,520**
Contingency (10%)		\$7,850 - \$10,952
Total		**\$86,350 - \$120,472**
ESTIMATED RANGE		**\$90,000 - \$125,000**

Thus, the estimated reasonable worst case cost range for landfarming the petroleum contaminated soils around the dual tank grave is approximately \$90,000 to \$125,000.

3.3 Soils Containing Non-Petroleum Volatile Organic Compounds

The second treatment unit involves soils containing both petroleum and non-petroleum volatile organic compounds. These contaminated materials are found near the following site locations: the flammable materials storage building; hazardous waste storage area; hazardous waste sump area; drum rack storage area; discarded drum area; and the three former underground storage tank areas (numbers 8, 9 and 14). These areas have a total estimate volume of between 5,300 and 6,600 yards^3 of impacted soils.

These soils may be effectively treated using low temperature thermal desorption. This remediation technique utilizes a mobile treatment unit coupled with a materials feed (or conveyor) system to move contaminated soils into a treatment chamber which is heated by natural gas or propane-fired heaters to approximately 1,500 to 1,700 °F. The materials are turned over on a continuous basis using screw augers with the typical material throughput being approximately 5 cubic yards per hour. The affected site soils would be excavated and loaded directly into the mobile treatment unit. Such a unit would not require a RCRA permit, for treatment would take

place within a temporary storage container and treatment of each "load" would be completed within the allowable 90-day limit. Once the contaminated soils are successfully treated, the material can be placed elsewhere on-site without the need for further remediation.

While in-situ vapor extraction may be more cost effective, the heterogeneity of the soils plus the presence of petroleum in these same soils create some uncertainty as to its feasibility. Therefore, low temperature thermal desorption was selected as the preferred technique due to its high probability for success. If in-situ vapor extraction was used, the treatment/remediation costs could be reduced by approximately 60 percent when compared against the proposed method.

3.3.1 Key Assumptions

The cost estimate for using low temperature thermal desorption to effectively treat the affected soils are based upon several assumptions, all of which are identified as follows:

- Soils may be treated on-site through low temperature thermal desorption.
- Treatment systems are mobile and can be staged adjacent to a given excavation.
- Treatment units would already have a NYSDEC multi-site air discharge permit, with there being no need to obtain a special site air discharge permit.
- Excavations do not require shoring except around UST #14.
- Low temperature thermal desorption will remove all volatile organic compounds in the soils to meet the clean up criteria of 1 ppb for benzene and 5 ppb for TCE.
- There is a soil swell factor of 1.25.
- Treated soil can be incorporated into the already existing landfill soils.
- The excavations are backfilled with imported fill.

Based upon current knowledge of site conditions, coupled with our discussions with NYSDEC officials, all of the above assumptions appear to be reasonable.

3.3.2 Estimated Costs

The cost estimates presented herein are engineering cost estimates only. In other words, no vendors were contacted to solicit bids. The line item costs are based on ENSR's experience with similar projects of this nature.

Item	Unit Costs	Totals
Contractor Mobilization (includes trial burn and site set up)		$30,000
Contractor Oversight		$15,000
Excavation	5,300-6,600 yds.^{3} x $3/yd.^{3}	$15,900- $19,800
Shoring of area around UST #14	1,500 s.f. x $25/s.f	$37,500
Demolition of small shed that rests over the former UST #14 location		$5,000
Treatment (4 units, 10 hrs./day, 7 days per week for 1 month)	5,300-6,600 yds.^{3} x $75/yd.^{3}	$397,500- $495,000
Transport of Treated Soils to ultimate disposition location on-site	5,300-6,600 yds.^{3} x $2/yd.^{3}	$10,600 - $13,200
Backfill	5,300-6,600 yds.^{3} x $15/yd.^{3}	$79,500 - $99,000
Sampling, Documentation, Mgmt.		$50,000
Sub-Total		**$641,000 - $764,500**
Contingency (10%)		$64,100 - $76,450
Total		**$705,100 - $840,450**
ESTIMATED RANGE		**$705,000 - $840,000**

Thus, it is estimated that the costs to effectively deal with the approximately 5,300-6,600 yards^3 of affected soils around the flammable materials storage building; hazardous waste storage area; hazardous waste sump area; drum rack storage area; discarded drum area; and the three former underground storage tank areas (numbers 8, 9 and 14) will range from about $705,000 to $840,000.

3.4 Northeast and Southern Landfills

These two landfills contain off-specification ceramic insulators, ceramic fragments, flyash, some soils exhibiting the presence of oils, some empty drums on the surface, and three drums with unknown content. We understand that the above described drums are in the process of being removed by Lapp personnel; therefore, no further consideration of the observed drums is given in this analysis.

Soil testing of these areas detected low concentrations of petroleum hydrocarbons, volatile organic compounds (VOCs) and metals. The main compounds of concern are the petroleum hydrocarbon and the VOCs. The metals, while apparently above background concentrations, are below the RCRA action levels as expressed in 40 CFR 264.521. For this reason, ENSR does not believe that there is a need for implementing specific remedial measures for the metals at either landfill location (as well as those in the area of the hazardous materials storage pad).

Because of the limited time available, neither landfill area could be adequately characterized. Visual observations made during the field program suggested that only limited areas may be impacted. However, the analytical data showed relatively uneven results. Therefore, it is uncertain whether the concentrations are representative of the entire area in each landfill location or whether they are reflective of far more localized situations involving specific sources within each landfill. Finally, the groundwater monitoring wells were not strategically located to necessarily reflect the conditions in either the northeast or south landfills. Monitoring wells could not be readily placed in either landfill location due to the hummocky topography and unstable fill conditions that made drill rig access difficult. Understanding whether either landfill impacts the groundwater is critical to establishing whether actual remedial activities would be required.

In short, the potential impact of the landfills has not been fully assessed. The measured VOC concentrations in the landfill soils do suggest that petroleum and solvent-related releases have taken place. On the other hand, it also appears that the migration of the petroleum hydrocarbons and VOCs would be significantly retarded by the presence of the deposited flyash.

If the VOCs and/or the petroleum hydrocarbons are found to be migrating, these contaminants could enter the groundwater. If this is the case, the groundwater remediation program described in Section 3.5 would be employed to deal with this contingency. The proposed groundwater treatment system already incorporates much of the equipment and capacity to accommodate the remediation of solvent contaminants migrating from the landfill areas. Some additional capital expenses would be necessary, however, in the event that non-aqueous phase liquids (NAPL) are involved. If so, the installation of additional steam injection and extraction wells would be required. This latter contingency is addressed as part of the groundwater program in Section 3.5.

Baring the migration of contaminants from these two landfills to the groundwater, the major cost envisioned is the conduct of an additional investigation that would be necessary in order to fully assess each of these two areas and to establish that neither is causing a sufficient impact to warrant the implementation of a large-scale remediation program. Therefore, the basic cost assumption is that such an assessment would be performed to evaluate whether the landfills represent significant sources that require specific remedial measures beyond those that may be accommodated under the groundwater remediation program discussed in Section 3.5.

The assessment costs assume that a program in the order of 10 wells and 10 borings would be appropriate. Soils would be sampled for Toxicity Characteristic Leaching Procedure (TCLP) VOCs and metals and the groundwater (two rounds) sampled for VOCs, TPH and priority pollutant metals.

3.4.1 Estimated Costs

These cost estimates do not represent a site specific bid to perform this work, but are presented as approximate costs for an assessment of this magnitude. No drillers or analytical labs were contacted to provide bids for this work.

Item	Costs
Mobilization	$3,000
Soil Borings	$7,000
Monitor Wells	$10,000
Groundwater Sampling	$10,000
Soil Analytical	$10,000

Item	Costs
Groundwater Analytical	$12,000
Data Reduction and Reporting	$10,000
Total	**$62,000**

Agency negotiations, possible preparation of risk assessments, and adverse weather conditions during the investigation may raise this cost to approximately $100,000; therefore, the estimated cost range for the landfill investigations is $62,000 to $100,000.

At this time, it is premature to project reasonable cost estimates for the possibility that landfill soils may require some type of remediation, for such a determination can only be established once additional groundwater and soil investigations are conducted. However, based upon site observations of the landfill areas, it would appear that these materials may be amenably to vapor extraction in order to "drive-out" the petroleum and volatile organic compounds. Unlike other site areas, the landfills both appear sufficiently porous, a necessary condition that would allow for the necessary flow of air and oxygen to enable the process to operate. In general, the cost of vapor extraction relative to the two landfill areas would be in the vicinity of $150,000 to $250,000.

Assuming these costs, the total cost range could be in the order of $190,000 to $350,000; this would include the analytical investigation program and the implementation of a modest soil vapor extraction program to reduce the petroleum and VOCs in the landfill soils to an acceptable level.

3.5 Groundwater Extraction and Treatment

Low concentrations of VOCs have been detected in the groundwater. The constituents of concern include chlorinated aliphatics (i.e., trichloroethene, 1,1,1-trichloroethane, etc.) and aromatic compounds (i.e., benzene, toluene, xylene, etc.). Methyl ethyl ketone (MEK) has been detected in the soils. However, MEK is not persistent in the environment and therefore, is not expected to significantly impact the groundwater.

The aromatics and chlorinated aliphatics can be treated through air stripping and the treated water discharged through an existing NPDES permitted outfall.

There is little available drawdown for groundwater extraction on the Lapp site due to the thin saturated zone which exists above the shale bedrock. For this reason, groundwater extraction may be performed using a series of french drains that would be placed below grade using

slotted piping surrounded by gravel packing. It is envisioned that these drains would be used as a passive recovery system, preventing the off-site migration of VOCs in groundwater. The direction of groundwater flow has not been established. Furthermore, specific plumes of VOC migration in the groundwater have not been delineated. Irrespective of these unknown considerations, the conceptual collection and treatment system described herein would be sufficiently flexible to accommodate the worst reasonable case: two or more groundwater flow patterns and the presence of multiple VOC plumes.

Creeks that may represent zones of groundwater discharge exist along both the east and the west sides of the site. Therefore, ENSR has conservatively assumed that french drains would be required on both sides of the property; such a pattern would also enable the capture of contaminated groundwater from the two landfill areas, if needed. On the eastern side, it was assumed that about 2,300 feet of drains following the property boundary would adequately collect the groundwater migrating off-site from this area, including groundwater being affected by the two landfills (south and northeast landfill areas). Two sets of drains (1,000 feet each) are assumed to be adequate for placement along the western facility boundary both south and north of the main building; such a scheme would also adequately collect the groundwater being affected by the south landfill, if required. It is further expected that four sumps would be required for the drains located along the eastern boundary and two additional sumps for each of the two drains situated along the western boundary. The groundwater will be collected and treated at a single location at the south side of the facility.

3.5.1 Key Assumptions

The cost estimate for implementing a system to effectively treat the affected groundwater is based upon several assumptions, all of which are identified as follows:

- Due to small available draw down, groundwater extraction can be accomplished using french drains.
- Treatment of the groundwater can be accomplished using air stripping.
- Treated groundwater can be discharged to Oakta Creek via an existing, NPDES permitted outfall.
- Treatment units can be housed in a butler type building.
- The system can be operated and maintained by one dedicated technician.

- The system will be operated for ten years.
- The discount rate for present value analysis is 5 percent.
- Air discharge from the air stripper can be permitted without the need for treatment.
- No soil disposal will be required.

Based upon current knowledge of site conditions, coupled with our discussions with NYSDEC officials, all of the above assumptions appear to be reasonable.

3.5.2 Cost Estimate

The cost estimates presented herein represent engineering estimates only. In other words, no vendors were contacted for quotes. The cost estimates are based on ENSR's experience with similar projects.

Item	Unit Costs	Totals
Mobilization		$5,000
Trenching	$40/lineal foot x 4,300 feet	$172,000
Gravel	$15/yd.^{3} x 4,500 yds.^{3}	$67,500
Sumps (including pumps & manholes)	$2,000 ea. x 8	$16,000
Piping (installed)	$5/lineal foot x 4,300 feet	$21,500
Electrical Connections		$45,000
Oversight		$40,000
Engineering		$40,000
Airstripper (installed)		$75,000
Building		$80,000
Sub-Total		**$562,000**
Contingency (10%)		$56,200
Total		**$618,200**
ESTIMATED COST		**$620,000**

In addition to an estimated capital cost of $620,000, there will be annual operating and maintenance expenses over a ten year period. These costs are estimated below:

Electrical	$25,000
Sampling & Analysis	15,000
Materials	10,000
Technician	35,000
	$85,000 per annum

Present value (5%, 10 yrs.) = $85,000 x 7.722 = $656,370 (assume $660,000)

Therefore, the total net present value of the relatively comprehensive groundwater treatment system is $1,280,000. Such a system could be used to accommodate a relatively complex groundwater flow regime in addition to effectively treating contaminants migrating from the two landfill areas, if necessary.

If a simpler system was chosen because the groundwater flow pattern could be established as being in a single direction, the total costs could be reduced. The most logical single flow situation would involve groundwater migrating in a easterly direction towards Oatka Creek. In this case, the two 1,000 foot drains which were contemplated for placement along the westerly end of the site may not be required. Capital costs would be reduced from $620,000 to an estimated $478,200 while annual operating and maintenance expenses would be reduced from about $85,000 per annum to around $65,000. On a net present value basis, using the same time frames and discount rates as above, a total cost of $980,200 would result.

Thus, it is reasonable to estimate that the base cost range for the groundwater remediation is $980,200 to $1,280,000.

Observations during drilling suggest that there may be non-aqueous phase liquids (NAPLs) present at the location of UST #14 and MW-1. NAPLs are ineffectively removed through conventional groundwater extraction techniques. Following a successful year long demonstration project, ENSR has applied for a patent on a steam injection technique that effectively removes NAPLs from above and below the water table. If NAPLs are present at the two areas, the total treatment costs can be expected to increase by approximately 10% or $128,000. If the NAPLs are migrating from each of the two landfill areas, an additional $ 300,000 may be required in order to effectively deal with the situation.

We have attempted to provide a relatively broad ranging groundwater cleanup scenario that would account for a variety of contingencies; this approach is probably reasonable since there

is such a great deal of uncertainty regarding groundwater flow directions and potential migration of contaminants from the two landfill areas. Moreover, there is the possibility (though it is impossible to identify a probability) for the presence of NAPLs in certain areas, a condition that imposes additional costs. Taking this range of considerations into account, a reasonable worst case cost range for groundwater remediation may be in the vicinity of about $980,000 to $1,708,000.

3.6 Other Costs

Implementation of a remediation program as described above inevitably will require additional analytical evaluations to be completed as well as negotiations with the NYSDEC. For the purposes of these cost estimates, it is assumed that consultant expenses relative to supporting the additional testing (this excludes the testing already discussed for the two landfill areas) and agency negotiations will range from about $200,000 to $300,000. Legal expenses, if any, have not been estimated.

3.7 Summary of Costs

A summary of the reasonable worst case remediation cost estimates presented in Section 3.2 through 3.6 are provided as follows:

Item	Cost
Landfarm of TPH Soils	$90,000 - $125,000
Low Temperature Thermal Desorption of VOC Contaminated Soils	$705,000 - $840,000
Landfill Assessment and Soil Vapor Extraction	$190,000 - $350,000
Groundwater Treatment	$980,000 - $1,708,000
Additional Testing/Agency Negotiations	$200,000 - $300,000
TOTAL RANGE	**$2,165,000 - $3,323,000**

In conclusion, site remediation costs are likely to range between $2.2 and $3.3 million.

There is an important caveat associated with the above described reasonable worst case cost range. As explained in the introduction to this chapter, there is always the distinct possibility that favorable agency negotiations can result in a significant reduction in the scope of the site remediation program, particularly since drinking water supplies do not appear to exist beneath the Lapp site and groundwater yields appear to be very low. Moreover, the site location is relatively isolated, with residential housing to the north. If future groundwater monitoring is able to demonstrate that prolonged and significant impacts are unlikely to exist as long as selected petroleum hydrocarbon and solvent contamination sources are mitigated through selective soils remediation, and if a formal risk assessment can provide further support, then total costs might be reduced by a factor of 25 to 50%.

Appendix A
Phase I Environmental Due Diligence Report

Rosenberg & Liebentritt, P.C.

Chicago, Illinois

Phase I Environmental Due Diligence Examination of Lapp Insulator Company, LeRoy, New York

ENSR Consulting and Engineering

September 1991

Document Number 5780-028-300

ENSR

ENSR Consulting
and Engineering
35 Nagog Park
Acton, Massachusetts 01720
(508) 635-9500
(508) 635-9180 (FAX)

September 26, 1991

Carin Wolkenberg
Rosenberg & Liebentritt, P.C.
Two North Riverside Plaza
Chicago, IL 60606

Re: Phase I Environmental Due Diligence Evaluation of Lapp Insulator Company, LeRoy, New York

Dear Carin:

ENSR Consulting and Engineering (ENSR) is pleased to transmit its environmental due diligence assessment of the property located on Gilbert Street in LeRoy NY. This report presents the findings and conclusions of the assessment of the subject property and was performed pursuant to ENSR's written proposal of August 29, 1991 and accepted by you on September 3, 1991. We understand that this Phase I investigation is being requested by Heller Financial in conjunction with a refinancing of several subsidiary companies of Eagle Industries, Inc.

Of specific concern to this evaluation is the extent to which there may significant environmental liabilities associated with (i) the potential presence of an on-site hazardous waste or petroleum hydrocarbon contamination problem or (ii) an off-site contingent liability related to any waste disposal facilities used by the subject facility. The on-site contamination investigation considered both historic uses of the subject property as well as current operations. Additionally, the site contamination analysis considered nearby land uses which may potentially impact the subject property through the release of hazardous materials or petroleum hydrocarbons that migrate onto or beneath the subject site. The off-site contingent liability evaluation was limited to a review of current and known historical, off-site hazardous waste disposal facilities used by the subject facility and whether or not there may be subsequent involvement on the part of the subject facility (or their owners/operators) in a federal or state Superfund cleanup resulting from the use of any of the identified waste disposal locations.

The details of our findings are contained in Exhibit A. The following describes the subject property and its past and current uses, summarizes our initial findings, and discusses study limitations. The actual site visit was performed on September 10 and 11, 1991 by Linda McCarthy of our Acton office. ENSR's investigative activities took place between September 10 and 13, 1991.

Site Location and Description

Lapp Insulator Company (Lapp) is located on a 65.87 acre parcel in The Village of LeRoy and the Town of LeRoy, New York, about 30 miles south southwest of Rochester. Two recently purchased (1991) undeveloped contiguous parcels of approximately 7.4 and 6.2 acres respectively are also situated west of the manufacturing facility along the Baltimore and Ohio Railroad tracks and East Bethany LeRoy Road. A third 39.72 acre parcel known as the Pavilion Test Site, purchased in 1969, was also reported to be owned by Lapp. This latter parcel is located approximately 10 miles from the subject facility.

The recently purchased 13.6 acres of undeveloped land was visually inspected along the perimeter only; no unusual conditions were observed. The remote Pavilion Test Site was not visited. It is reported to characterized as consisting of fields and wooded areas, a small section of which is used for the weather performance testing of ceramic and polypace insulators. This testing is to determine whether the insulators can withstand ice storm and windy conditions. No chemicals or other potentially hazardous materials reportedly are used during the performance of the testing and no structures are present on this remote site. The newly purchased undeveloped land and the remote Pavilion Test site are not part of the scope of this site assessment.

Given the above limitations, this investigation focused solely on the 65.9 acre main manufacturing parcel which referred hereinafter as the subject site; it is addressed as Gilbert Street, LeRoy, NY 14482. This site is situated to the east and west of Gilbert Street.

The subject site is located in a residential and agricultural use area. To the north of the subject site is Munson Street Extension, a Village of LeRoy recreation area, a credit union and residences. To the east and south beyond Lapp's Gilbert Street property is Oatka Creek (formerly Allens Creek), followed by residential, agricultural and wooded areas. To the south and west of the site is a railroad line, beyond which are agricultural and undeveloped properties.

Approximately 25% to 30% of the nearly 66-acre site is developed. The entire site contains approximately 650,000 square feet or approximately 17 acres of manufacturing and storage space under roof. Asphalt parking and storage areas surround the facility along Gilbert Street and the perimeter of the manufacturing areas. Gravel areas extend beyond the asphalt to provide easier access to both roofed and open air storage facilities as well as miscellaneous out buildings situated to the northeast, northwest, east, southeast and west of the main manufacturing areas.

Process Description

Lapp produces ceramic insulators, dead-end (assembly of suspension units designed to terminate the conductor at a structure) ethylene propylene diethylene monomer (EPDM) insulators, other EPDM insulators, and resin and condenser (oil) impregnated high voltage transformer bushings at their facility. The manufacturing process associated with each of the major product lines is briefly described below:

Ceramic Insulators

Clays are transferred from the clay storage silos and mixed with a liquid known as "water glass" in subsurface cisterns to form a clay slurry. The slurry is screened by a filter press to remove excess water and then formed into pugs, or clay cylinders.

The pugs are later extruded into various insulator shapes and sizes after which they are turned on lathes and redried to a 1% moisture level. Following the drying, a conductive or standard glazing compound is applied to the insulators. The glazing compounds used involve over 25 different materials, including ball clays, talc, flints and feldspars. The conductive glaze also includes the addition of a zinc containing wax emulsion. The glazed material is then introduced into continuous gas-fired kilns. Once removed from the kiln and allowed to cool, the insulators are taken to the grinding area to prepare the surface for hardware installation. There, one end is ground using a diamond drill which is cooled with a water soluble grinding oil.

The insulators are then visually inspected for evidence of defects, prior to electrical testing. Insulators that pass the testing are taken to the assembly area. Assembly consists of the application of a film of grease about the ground collar base to prevent the adherence of the portland cement which is added to secure the hardware to the grounded surface. The unit is then subjected to mechanical testing to insure the quality of the hardware adhesion. The final addition of hardware is completed in the shipping and storage area prior to packaging.

Dead-End EPDM Insulators and EPDM Insulators

This synthetic insulator is attractive because of its strength-to-weight ratio which is significantly higher than that of ceramic or porcelain insulators, a condition that results in reduced tower costs. A dead-end or strain insulator is an assembly of suspension units arranged to dead-end the conductor at a structure.

In the manufacturing of the synthetic EPDM dead-end insulator, a stock polymer material is guided into a large press in which the material is extruded into prefabricated forms, pressed and thoroughly cured under pressure and temperature. The plates of the mold are then separated and the insulator forms removed and trimmed with a knife.

All synthetic insulators consist of a polymer coated fiberglass rod covered by weather sheds or skirts of polymer. A second press is used to extrude a stock polymer material into prefabricated forms. The press partially cures the formed EPDM sheds. The sheds are then cooled in a dry ice and methanol bath to allow easy assembly of the sheds onto the fiberglass rod. As the shed reaches ambient temperature it expands and adheres to the rod. The rod and sheds are then subjected to a final curing process.

Resin and Condenser (Oil) Impregnated High Voltage Transformer Bushings

Unlike the manufacturing of the ceramic insulators, the production of both the resin and oil impregnated bushings require metal working that involve the use of cutting oils, degreasers, plating and etching operations, welding, painting and the use of a variety of solvents for cleaning agents, form releasing agents, and testing media.

All bushings require the attachment of a compressed spring loaded bushing cap assembly to a stud. The stud consists of a cylindrical ring core, built up of thin iron lamination, about which is wound copper wire to form the secondary winding. Condenser bushings are made by winding predetermined thicknesses or layers of electrical kraft paper with metal (aluminum) foil around the metal stud or conductor and saturating the core with non-PCB containing transformer oil under vacuum. Resin impregnated bushings involve the injection of an epoxy resin under vacuum about the stud or conductor.

Transformer bushings are then enclosed in ceramic or porcelain sleeves that fit below a transparent glass expansion chamber or oil chamber and the bushing cap compression assembly. The transformer bushings are then filled with hot transformer bushing oil under a vacuum at elevated temperatures.

Mechanical testing involves the submersion of the bushings in a water tank under pressure to determine the integrity of the bushing seals. If the transformer bushing passes the mechanical testing then it is further subjected to electrical testing. By applying a voltage to the bushing while immersed in a tank of perchloroethelyene, the electrical response of the bushing can be determined.

Site History

In January 1917 Lapp Insulator Company, Inc. purchased a parcel of land west of Gilbert Street and contiguous with the railroad from R. Heaman, a farmer. Facility personnel report the initial parcel to have been farmland. The history of parcel acquisitions by Lapp indicates that the adjacent land subsequently purchased by Lapp was farmland. A 1940 survey map identifies a Socony-Vacuum Oil Company (now Mobil) pipeline easement through the southern portion of the Lapp property.

Many of the farm houses formerly located on the Lapp property have been razed over time to allow for expansion of the manufacturing operations. During the past 25 years, no fuel oil tanks associated with the dwellings are reported to have been discovered.

Site Inspection Results

The on-site inspection was conducted on September 10 and 11, 1991. The details of the inspection are recorded in Exhibit A. The facility was observed under normal operating conditions. The inspection covered the 66-acre main manufacturing parcel. The newly acquired undeveloped land that exists to the west of the railroad tracks and the Pavilion Test site, which is located some ten miles away, were not inspected and therefore is excluded from the scope of this investigation.

Summary of Manufacturing Activities

Manufacturing functions east of Gilbert Street include high voltage transformer bushings and EPDM insulators. Other area activities and building usage include testing areas for the bushings, a machine shop, welding shop, a high voltage lab, a research development and engineering department, high voltage lab workshop, a vehicle and equipment storage building, flammable storage shed, acids and plating supply shed, finished product and shipping building, a receiving building and a hazardous waste/ waste oil/ virgin oils concrete pad.

West of Gilbert Street manufacturing functions center on the production of ceramic insulators from clay. Western area activities and building usage also support offices, carpenter shop, maintenance shop, ceramic lab, mechanical lab, electrical test area, plating operations (primarily in support of bushing manufacturing), boiler room, assembly area, shipping and cementing areas, clay wastewater settling ponds, storage and maintenance sheds, remains of an old incinerator for paper burning, three water towers, a rail spur and a Niagara-Mohawk power substation.

Summary of Significant Hazardous Materials Usage Areas

Methylene chloride, hexane and silicone, and tetrachloroethylene are used in the bushing manufacturing area (Building 25). 1,1,1 trichloroethylene is used in the degreasing room located in the southeastern corner of the machine shop (Building 23). Trim Sol containing 100ppm tetrachloroethylene is used in the machine shop (Building 23). Methanol and Chemlok 607, an epoxy hardener, are used in the area east of the machine shop and bushing manufacturing areas (Building 44). Trichloroethylene and asphalt paint with smaller quantities of toluene are used in the receiving building (Building 31). Rydlyme, a descaling agent containing lead and chrome is used in the boiler area (Building 15). Nitric acid and caustic soda are used in the metal cleaning and etching operations in the plating room (Building 1). Solvolene and Syntol (paint thinners) are used in the adjacent to the cementing operation (Building 1).

Two vapor degreasers containing 1,1,1 trichloroethane are located southeast of the machine shop and utilize approximately 14,000 gallons per year. The older unit was placed in service reportedly in the 1950's and is steam heated; the second unit is electrically heated and was purchased in the 1970's. There is a floor drain below the units that was originally in place for the old boiler unit and was changed to an 6" elevated sealed drain in the 1980's. According to facility personnel, no release to this drain from the vapor degreasers has occurred; all spills have reportedly been contained on the concrete floor.

Transformers and Capacitors

Five general exterior transformer locations exist; these contain a total of included fifteen (15) transformers, all of which are owned by Lapp. Based upon transformer oil laboratory analyses provided by Lapp (March 30, 1987; August 8, 1988) and other information, it appears that two transformers as of the dry type, with twelve (12) of the remaining thirteen (13) transformers being non-PCB contaminated (<50 PPM) oil transformers. The remaining transformer is believed to be a 10KVA oil-cooled, pole mounted transformer located near the Niagara-Mohawk substation; its PCB status is not known. Of the twelve (12)transformers originally tested, only three (3) were initially found to contain PCBs in a concentration greater than 50 ppm. These involved roof top transformers that were subsequently retrofilled and later reclassified in 1988 as non-PCB transformers. There is no known history of leakage from any of the thirteen (13) exterior oil-cooled transformers. The visual inspection did not result in the identification of any leaks or stains around any of the ground-level exterior transformers. No roof inspections were performed; therefore, the three (3) units located there were not inspected. Supporting documentation concerning the PCB testing and of the retrofilling are contained in Exhibit B.

There are seven general interior transformer locations which contain eight (8) dry type transformers, according to facility personnel. In addition, four (4), non-operational oil-filled transformers are stored in the Quonset Hut, a storage building located northwest of the ceramic manufacturing area. According to the same data provided for the exterior transformer, oil analysis performed on March 30, 1987 indicated that none of the oil-filled transformers being stored were considered PCB contaminated. Supporting documentation on these tests are also contained in Exhibit B.

Finally, according to a July 26, 1989 letter from Batavia, Inc. to Lapp (see Exhibit B), seven (7) capacitors were also stored in the Quonset Hut; all were believed to contain PCB's based upon their age and manufacturer and none were observed by Batavia to be leaking. Origin and final disposition of these capacitors could not be determined from the available information. The capacitors were not observed within the hut during the facility inspection.

Underground and Aboveground Storage Tanks

Pursuant to the Hazardous Substance Bulk Storage and Petroleum Bulk Storage registration requirements of the New York State Department of Environmental Conservation (NYSDEC), eleven (11) above ground storage tanks have been registered (see Exhibit C for copy). The state registration requirements do apply to underground process tanks, sumps or tanks containing transformer or bushing oils.

Twenty-three (22) storage tanks (above and below ground) are known to have existed on the subject property (excluding non-regulated process tanks and sumps). Seven (7) were underground (USTs) while fifteen (15) were located aboveground (ASTs). The seven (7) of USTs were removed between 1984 and 1987. These tanks are identified as follows:

Tank I.D.	Age (Years)	Capacity (Gal.)	Contents
None	23	20,000	Fuel Oil
None	23	20,000	Fuel Oil
1	12	30,000	Fuel Oil
2	12	30,000	Fuel Oil
8	19	300	Leaded Gasoline
9	28	500	Leaded Gasoline

Tank I.D.	Age (Years)	Capacity (Gal.)	Contents
14	8	550	Waste TCE

According to facility personnel, the tank graves of these USTs were visually inspected by Lapp personnel and no signs of leakage, soil discoloration, or detectable odors were noted. With the exception of the removal of two of these USTS, there was no independent oversight of the tank pulls. Two of the USTs were removed in the presence of Mr. Daniel Callahan of the County of Genesee Health Department who did not observe any subsurface contamination (see Exhibit C for Callahan letter of December 24, 1987).

At the time the UST regulations came out (1986-87), Lapp mistakenly registered four additional tanks which have since been determined by the NYCDEC as constituting process tanks which do not require registration. A copy of the state's letter to this effect is also contained in Exhibit C. All four tanks contain transformer oil (non-PCB containing) and are located in and around the machine shop area (Building 44). These included a 12,000 gallon tank (23 years old currently), a 12,844 gallon tank (37 years old), a 2,000 gallon tank (unknown age), and a 2,800 gallon tank (unknown age). A copy of the registrations for these tanks is provided in Exhibit C. All of these unregulated tanks continue to exist. With the esception of the 12,844 gallon tank, none has ever been tested for integrity. Lapp reported that they emptied the 12,844 gallon tank and an ultrasound test was performed on March 16, 1990 to determine its structural integrity. According to facility personnel, the tank was deemed to be void of cracks or other structural problems. A copy of the ultrasound test is provided in Exhibit C.

Of the fifteen (15) aboveground tanks (ASTs), four (4) have been removed, or removed and replaced (R*); they are characterized as follows:

Tank I.D.	Age (Years)	Capacity (Gal.)	Contents
3	7	12,000	Fuel Oil
4 (R*)	Unknown	4,000	Diesel Fuel
11	24?	300	Leaded Gasoline
13	6	20,000	Fuel Oil

The remaining eleven (12) onsite non-process related aboveground tanks contain waste oil (4), diesel fuel (2), unleaded gasoline (2), 1,1,1 trichloroethylene (TCA) (1), and perchloroethylene (3). These tanks range in size from 275 to 20,000 gallons and range in age from six to thirty-nine years old. The oldest tank is scheduled to be removed from the site by September 20, 1991, according to facility personnel. As of the date of the site investigation this TCA-containing tank had reportedly been cleaned, but not removed.

The visual inspection of the areas surrounding the above ground tanks did not result in the identification of any significant spill areas. Fill ports around the underground tanks also were observed to be generally well-maintained.

Process Tanks and Sumps

Numerous process tanks exist at the subject facility. The cisterns utilized west of Gilbert Street within the ceramic making operations have not been known to contain hazardous materials. The operations to the east of Gilbert Street that center upon bushing manufacturing and EPDM insulators involve the use of large below ground concrete pits or vaults to enclose the process tanks. These below ground concrete vaults contain sumps to continually pump the groundwater to Outfall 004 (which in turn discharges to the creek). Facility personnel report that if the sump pumps go down in this area, the vaults fill with groundwater. The concrete vaults were reportedly built between 1952 to 1954 at the time of the building's construction.

Two below ground perchloroethylene tanks used in the electrical testing of the bushings are also located in this area. These two tanks are reportedly of similar construction but vary in capacity, 1200 and 2400 gallons respectively. The tanks are constructed of steel construction and have been placed within a poured concrete form. Two sumps are located below the base of the tanks, one is for the discharge of ground water to Outfall 004, the other for emergency overfill protection.

The condition or integrity of the underground concrete or steel process tank units could not be determined; facility personnel do not have an inspection or testing program in-place. The concrete vaults are not lined and have been in place since circa 1952-1954. Areas beneath these tanks could not be directly viewed.

Two waste oil sumps are located onsite and are further discussed below under oil/water separators. There also has not been an inspection or testing program in place for these sumps.

Finally, there is large, steel enclosed (above ground) tank containing transformer bushing oil; this is located in the yard north of the high voltage lab. The tank's age and integrity are unknown.

Oil Water Separators

Four oil/water separators currently exist onsite. They are located in the boiler room; across from the maintenance room at the steam degreaser; adjacent to the cementing and assembly area; and, in the bushing manufacturing area. The separators were added in an attempt to reduce the quantities of waste oil/water being shipped offsite for reclamation or disposal. The assembly area sump is an epoxy coated unit installed in 1980, while the steam degreaser sump is not lined. Two 275 gallon above ground waste oil tanks were installed to receive the separated oil from the sumps located in the assembly and the bushing manufacturing areas. According to facility personnel these two areas produce the bulk of reclaimed waste oil. No unusual observations were made with regard to the area around these two waste oil tanks.

Floor Drains, Storm Water Runoff, and New York SPDES Permit

An extensive network of floor drains, clean outs, down spouts, open grate trenches and catch basins are located throughout the manufacturing plant areas east and west of Gilbert Street. A majority of drains previously located in the machining, plating, boiler, bushing manufacturing and special porcelain areas were plugged around 1984, according to facility personnel. Prior to that time, the drains discharged to the creek through any one of a number of outfalls.

Pursuant to NYSDEC SPDES Permit NY0000779, outfalls 001, 004, 006 and 007 are currently permitted to discharge to Oatka Creek. Review of discharge monitoring reports (DMR) for 1990 and 1991 revealed only minor excursions from the permit limitations. According to facility files, the excursions were promptly addressed and appear to have been resolved to the satisfaction of the NYDEC. The current facility permit expired April 1, 1991. A renewal application was submitted to the NYDEC in October 1990. The facility has received a draft renewal permit that significantly increases the number of parameters and analytical testing frequency at the outfalls. According to facility personnel, the new permit application was prepared in accordance with the new New York State storm water regulations.

Outfall 001 handles non-contact cooling water and drainage from the southwestern area of the facility near the railroad tracks. According to facility personnel and a review of discharge

monitoring reports (DMRs), the flow at this outfall usually is too low to take a grab sample for analysis; reportedly, there has not been any process flow to this area for over 18 months. Other outfalls receiving the following discharges: Outfall 004 reportedly receives non-contact cooling water, process water and stormwater--it also receives any groundwater pumped from the sumps located around the vaulted solvent tanks; Outfall 006 receives non-contact cooling water, plating room wastes, wash water and storm water; and, Outfall 007 receives wastewater from the clay dewatering process.

In addition to these permitted outfalls, others exist and are in use. Outfalls 002 (south and north) received plating wastes in the past. These wastes would have included chromium and tin in addition to current plating wastes that contain silver, aluminum, copper, lead and cyanide. Wastes from the cementing operation would also have entered Outfall 002 prior to 1980. In 1984, Outfall 002 south was reportedly cut and plugged. Prior to 1984, Outfall 002 north received material from the machine shop floor drain (built 1952) and storm water runoff; since that time Outfall 002 north has reportedly received storm water only.

Outfall 003 according to facility personnel has received only storm water since 1984; prior to that time, two floor drains in the bushing manufacturing area (Building 44 constructed 1965) also entered 003.

Outfall 005 has historically been utilized primarily for storm water discharge, however in 1985 two floor drains were plugged in the Research, Development and Engineering section (Building 24, built 1954); these formerly discharged to Outfall 005.

Wastewater generated from the clay filter press is segregated into "clean and dirty" water based turbidity. Clean water is recycled and returned to the clean water tank; excess water is discharged via New York State Permit Discharge Elimination System (SPDES) outfall 006. Dirty water includes water from the area floor drains and troughs and wash up water. This water is treated with alum and a polymer to aid in the flocculation of the clay materials and pumped to the three onsite settling ponds. The effluent is discharged via SPDES permit to outfall 007. The residual solids are excavated and have historically been taken to either the Dintruff Quarry in LeRoy or the the Albion landfill in Albion, NY for disposal. A single composite sludge sample was tested in June 1990 for hazardous constituents using the recently adopted TCLP procedures. The sample was found to be non-hazardous; a copy of the test results are contained in Exhibit D. Facility personnel indicated that based upon these tests, the NYSDEC has indicated that the sludge may be utilized as fill (as a "beneficial use). Historically, glazes that would have been ultimately discharged to the pond would have included barium, nickel and zinc. It is important to note that the single sludge sample was composited to reflect conditions in three seperate settling ponds and at varying depths

within each. In other words, the validity of this single sample as being representative of the materials contained within the three sludge ponds may be questioned.

Asbestos Survey

A formal survey of the subject facility for asbestos containing materials (ACM) was not undertaken as part of this assessment. According to facility personnel, there have been some ACM removals, all of which were conducted by U.S. Thermal of Rochester, NY. However, supporting documentation for these removals were not available.

Facility personnel indicated that two removal areas have been target for 1992: the building and ground's lunch room and the clay unloading area. The estimated costs for these areas was reported as approximately $27,200.

Satellite Buildings and Storage Areas

The hazardous waste/waste oil/virgin oil/miscellaneous solvents concrete pad was reportedly built in 1977. Prior to 1977, facility personnel did not have information as to the location of hazardous waste or chemical storage areas.

A 2' to 3' diameter concrete cylinder (with a reported dirt base) containing a liquid with an oily layer, was situated at the southeastern end of the pad. The concrete pad was pitched to a drain that discharges to the unlined concrete cylinder. Facility personnel periodically draw off the water beneath the oily layer and skim the surface to recapture the waste oil.

At the time of the facility inspection, a drum of solvolene was observed to be leaking to the concrete.

Staining to the soil area around the pad was noted in two location covering approximately 12 square feet. Waste oil drums and waste grinding material (soluble waste oil and sludge) were noted on pallets stored in scattered areas on the grass.

Hazardous wastes were not always appropriately labelled. Some of the writing had also bleached off the tags. Eleven drums of hazardous waste were observed to have been stored in excess of 90 days, while 5 drums had been stored greater than 240 days.

The flammable storage building is located east of the shipping and receiving buildings. The interior of the building was wet with what appeared to be the contents of a leaking drum. Examination of the rear of the building revealed a 4" wide cracked foundation that was wet.

The hole had been filled with speedidri at some point. Facility personnel have reported that there is no actively leaking drum in the building. The spill was the result of an earlier hydraulic oil drum leak; this drum has since been removed.

Outside the boiler room, workers were observed cleaning roofing equipment with white kerosene on the asphalt surface. The area was blackened from current and/or previous practices in the area. Kerosene containers were left open and subjected to heavy rainfall events. According to facility personnel, the material will eventually be taken to the hazardous waste pad. The asphalt area outside the doorway was also observed to have bubbled and deteriorated.

Three waste oil marked drums on a pallet were found against a wall near the old incinerator.

The drums found amongst the porcelain and the brush and gravel to the south had been removed by the second day of the site visit. They were located west of the special porcelain building. The one full drum had been punctured to remove the contents and had stained the soil in the area. Other scrap drums were located there as well. The total effected stained soil in this area was approximately 15 to 20 square feet.

The drum rack storage area, located west of the railspur and the clay making area, showed signs of staining to the gravel base. The total drum area was estimated to cover 50 by 25 feet. The facility recycles its drums without cleaning the drums of its prior contents. Often the original drum labels remained next to the hazardous waste labels or non-hazardous waste labels.

Undeveloped Areas

According to visual site observations and discussions with facility personnel, the most northern and southern portions of the now existing east tract across Gilbert Street, has historically been used for the deposition of unwanted ceramic insulators, construction debris and other materials. Within the southeastern area off Gilbert Street four unmarked rusty drums were observed within the brush and fill area. Three bung type drums were rusted through and empty, the fourth seemed to contain some type of unknown product or waste material. The following day facility personnel found the fourth barrel to have contained an unknown liquid waste product.

Regulatory Review

Various federal and state environmental records were searched. This was conducted through using the National Environmental Data Information System, a proprietary data base created by Environmental Data Resources of Stamford, CT.

The subject property and those in the immediate surrounding area were screened against the following data bases:

- CERCLIS: for abandoned, uncontrolled or inactive hazardous waste sites reported to the USEPA.
- NPL: for existing and proposed Superfund sites on the National Priorities List.
- RCRA: for reported sites that generate, treat, store and/or dispose of hazardous waste and subject to the federal RCRA regulations.
- TRIS: for sites that have reported releases from the property to the air, water and/or land and subject to reporting provisions contained in the federal SARA Title III regulations.
- TSCA: for sites manufacturing or importing toxic substances and reporting under the federal TSCA regulations.
- SPILLS: for sites reporting spills to the USEPA, the Coast Guard, or the federal Department of Transportation under various federal regulations.
- UST: for underground storage tanks registered on the property under various state regulations.
- LUST: for leaking underground storage tanks reported to state agencies under various state regulations.
- SHWS: for identified hazardous waste sites designated under various state regulations.

- SLF: for identified landfill sites designated under various state regulations.

This report indicates three entries for Lapp: the subject facility is designated a large quantity generator of hazardous wastes, has five (5) underground tanks registered, and is reported to have had one (1) UST that leaked. The USTs shown on the registration do not correlate with those described (as having been removed) by facility personnel. The state information shows the presence of Tanks #1 and 2 each at 30,000 gallons (fuel oil); these two tanks were removed on 1987 according to Lapp. Tank #4 in the state report has a capacity of 25,000 gallons (unleaded gasoline); according to Lapp, this size tank has never existed though they have a 2,500 gallon above ground diesel fuel tank identified as Tank #4. Tanks #8 and 9 (275 gallons each--contents defined as "other") in the state registration are not present according to Lapp, but there are two above ground tanks having the same numerical and content designations (275 gallon waste oil--both). Alternatively, on the Lapp company records there is the identification of two underground tanks numbered #8 and #9 that were removed in the past. Tank #8 was 300 gallons and contained gasoline while Tank #9 was 500 gallons and also contained gasoline. We cannot account for the apparent discrepancies described above. The so-called "25,000 gallon" gasoline tank presumably is a typo. According to facility personnel, no USTs have ever been determined to be leaking. Copies of the EDR state information on the USTs is provided in Exhibit E.

The EDR report also contained copies of six Spill Response Forms concerning the Lapp facility. These are provided in Exhibit E. These all involved relatively minor incidents, with relatively limited quantities of materials released.

None of the nearby properties were identified as being on any hazardous waste contamination or related site lists.

Off-Site Disposal Facilities Used and Potentially Responsible Party Status

The subject facility has used the following disposal facilities since 1988; no information was available about facilities used before that time:

- Frontier Chemical Waste Process, Niagara Falls, NY
- Petro Chem Processing, Detroit, MI
- Albion Landfill, Albion, NY
- ENSCO, Inc., El Dorado, AR
- Detrex Corp./ Gold Shield Solvents Division, Detroit, MI
- Detrex Corp./ Gold Shield Solvents Division, Euclid, OH

- GSX Chemical Services of Ohio, Inc., Cleveland, OH
- Safety Kleen, East Avon, NY
- Aqua-Tech, Port Washington, WI
- Chem Met Services, Wyandotte, MI
- Chemtron Corp., Avon, OH
- Environmental International Elect. Services, Kansas City, MO
- Michigan Disposal, Inc., Belleville, MI
- Environmental Enterprises, Cincinnati, OH

The above listing of waste disposal facilities used was developed on the basis of interviews conducted with facility personnel and a review of selected facility RCRA annual report files or hazardous waste manifests for the years 1988, 1989, 1990 and 1991 only. Facility annual reports submitted to NYSDEC prior to 1990 did not contain transporter and disposal facility information required for this search. For the years 1988 and 1989, individual manifests were reviewed to obtain the necessary information. We have conducted no other independent check on this issue.

Site personnel did not believe that the company has been designated a potentially responsible party with regard to wastes generated from the subject facility. Moreover, facility representatives interviewed did not believe that there was any on-going governmental investigation concerning possible Superfund-related liabilities at any off-site disposal location used.

To supplement information received from plant personnel, various federal data bases were reviewed to ascertain the possible status of each of the above identified off-site disposal facilities as well to verify whether or not the subject facility or its owners have been identified as a potentially responsible party at any waste site location. The specific informational sources used include the following:

- U.S. Environmental Protection Agency, Office of Emergency and Remedial Response, "CERCLIS Data Base Listing," May 1991. This data base identifies all sites/facilities that are on the National Priorities List or that have been identified as potential problem sites.

- U.S. Environmental Protection Agency, "Preliminary Findings on the Identities of Potentially Responsible Parties," July 1991. This data base identifies potentially responsible parties at federal Superfund sites.

The review of the EPA's PRP data base did not result in the identification of the subject facility or any of its known owners as being a PRP at any federal Superfund site relative to

wastes generated from the LeRoy, NY facility. The CERCLIS Data Base did contain a listing for the following disposal facilities used by Lapp:

- Frontier Chemical: This site underwent a site investigation in August 1985. The data base indicates that no agency decision has stemmed from this investigation, though the site is not on or proposed for the National Priority List.

- ENSCO: This site underwent a preliminary assessment in November 1979. The data base indicates that the site has been designated as requiring "No Further Action."

- Detrex (Detroit): This site underwent a preliminary assessment in January 1989. The data base indicates that the site has been designated as requiring "No Further Action."

- Detrex (Euclid): This site underwent a preliminary assessment in March 1990. The data base indicates that the site has been designated as requiring "No Further Action."

- Environmental Enterprises: This site underwent a preliminary assessment in January 1989. The data base indicates that the site has been designated as requiring "No Further Action."

- Chemtron: This site underwent a preliminary assessment in August 1984. The data base indicates that the site has been designated as requiring "No Further Action."

Summary of Findings

Site Contamination Potential

Based upon the historical research, review of facility blueprints, review of governmental waste incident data bases and files; interviews conducted with selected individuals; and the on-site visual inspection of the property, no direct evidence was found to indicate that there is or has been a significant contamination problem affecting the subject site.

However, during the course of the investigation several issues of potentially significant concern were identified. In view of these earlier described sources of possible concern, the facts suggest that the subject site presents at least a moderate potential for there to be a significant subsurface contamination problem. In our opinion, the environmental risk associated with the presence of such a problem, if present, may be limited, given the industrial use of the property, and the general absence of sensitive receptors nearby.

However, until the nature and extent of any contamination (if found) is defined, the relative regulatory risks cannot be established with any degree of certainty.

Off-Site Contingent Liabilities

Based solely on the limited research conducted, we did identify any specific off-site Superfund liabilities associated with the wastes generated from the Lapp facility in LeRoy, NY. While at least six disposal facilities used by the subject facility has been investigated by governmental agencies in the past, in five cases no further action is contemplated. In one case, Frontier Chemical, no final determination has been made, though it is noted that the Frontier site is not on or proposed for the National Priority List.

Study Limitations

This report describes the results of ENSR's initial due diligence investigation to identify the potential presence of a significant hazardous waste or petroleum hydrocarbon contamination problem involving or materially affecting the subject property. In the conduct of this due diligence investigation, ENSR has attempted to independently assess the potential presence of such a problem within the limits of the established scope of work as described in our proposal dated August 29, 1991. However, verification of potentially important facts was not always possible. As with any due diligence evaluation, there is a certain degree of dependence upon oral information provided by facility or site representatives which is not readily verifiable through visual inspection or supported by any available written documentation. ENSR shall not be held responsible for conditions or consequences arising from relevant facts that were concealed, withheld, or not fully disclosed by facility or site representatives at the time this investigation was performed.

This report and all field data, notes, and laboratory test data (where applicable) were gathered and/or prepared by ENSR in accordance with the agreed upon scope of work and generally accepted engineering and scientific practice in effect at the time of ENSR's investigation of the site. The statements, conclusions, and opinions contained in this Report are only intended to give approximations of the environmental condition of the site.

This report, including all supporting field data, notes, and laboratory data where applicable (collectively referred to hereinafter as "Information"), was prepared or collected by ENSR Consulting and Engineering (ENSR) for the benefit of its client, Rosenberg & Liebentritt, P.C., and its clients' lender, Heller Financial, Inc. ENSR's client (and its clients' lender) may release the Information to third parties, who may use and rely upon the Information at their discretion. However, any use of or reliance upon the Information by a party other than specifically named above shall be solely at the risk of such third party and without legal recourse against ENSR, it parent or its subsidiaries and affiliates, or their respective employees, officers or directors, regardless of whether the action in which recovery of damages is sought is based upon contract, tort (including the sole, concurrent or other

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negligence and strict liability of ENSR), statute or otherwise. This information shall not be used or relied upon by a party that does not agree to be bound by the above statement.

If you have any questions regarding our report or its findings, please do not hesitate to contact the undersigned at (508) 635-9500.

Sincerely,

Linda A. McCarthy
Environmental Auditor

Halley I. Moriyama
Vice President

Attachments: Exhibits A through E

ENSR

Exhibit A
Supporting Documentation for Environmental Due Diligence

EXHIBIT A
SUPPORTING DOCUMENTATION FOR ENVIRONMENTAL DUE DILIGENCE

PART I: SITE OWNERSHIP AND LOCATION

1. **Site Owner:**

   (a) **Name:** Eagle Industries

   (b) **Address:** 2 Northriver Plaza
   Suite 1160
   Chicago, IL 60606

2. **Site Operator:**

   (a) **Name:** Lapp Insulator Company

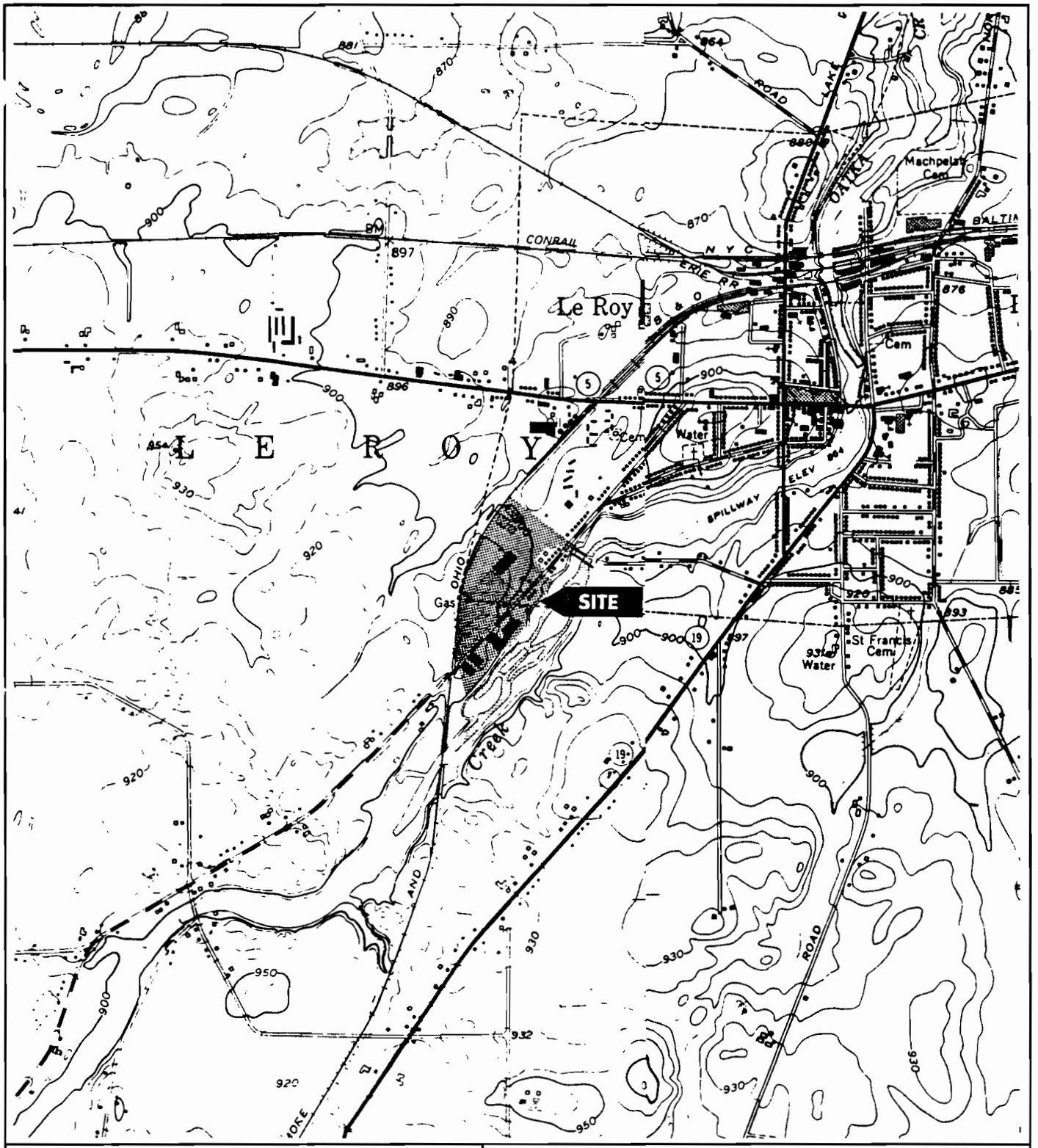
   (b) **Address:** Gilbert Street
   LeRoy, NY 14482

3. **Site Location References: (See Figure 1: Site Location Map)**

   (a) **Address:** Gilbert Street
   LeRoy, NY 14482

   (b) **County:** Genesee

   (c) **U.S.G.S. Quad Map:** Stafford, NY



REFERENCE:
USGS 7.5 Minute Series - Stafford and LeRoy, N.Y. Quadrangle - 1950
Photorevised 1978, 1976

0 .25 .5 1 Mile
SCALE

N

ENSR

FIGURE 1
SITE LOCATION MAP
LAPP INSULATOR CO.
LEROY, NY

DRAWN BY:	DATE:	PROJECT NO:
CHK'D BY:	REVISED:	DWG. NO:

MW0000

PART II: DESCRIPTION AND CHARACTERIZATION OF SITE

1. Physical Description of Site (See Figure 2: Site Plan)

(a) Site acreage: Manufacturing Site 65.9 acres
Two Undeveloped Contiguous Parcels 13.6 acres
Pavilion Test Site 39.72 acres

(b) Estimated % of site covered by buildings and pavement: 25 - 30%

(c) Site and building layout:

Lapp Insulator Company (Lapp) is located on a 65.87 acre parcel in The Village of LeRoy and the Town of LeRoy, New York, about 30 miles south southwest of Rochester. Two recently purchased (1991) undeveloped contiguous parcels of approximately 7.4 and 6.2 acres respectively are also situated west of the manufacturing facility along the Baltimore and Ohio Railroad tracks and East Bethany LeRoy Road. A third 39.72 acre parcel, acquired circa 1969, known as the Pavilion Test Site was also reported to be owned by Lapp. This parcel was reported by Lapp to be approximately 10 miles from the subject facility. The subject site was limited to the 65.9 acre parcel and is addressed as Gilbert Street, LeRoy, NY 14482, and extends to the east and west of Gilbert Street.

The recently purchased 13.6 acres of undeveloped land was visually inspected along the perimeter only; no unusual conditions were observed. The remote Pavilion Test Site was not visited. It is reportedly a field and wooded parcel and a small section is used for the field testing of ceramic and polypace insulators. This testing involves the static and dynamic loading of the insulator's conductor, in order to simulate wind and ice storm conditions. No chemicals or other potentially hazardous materials are reportedly used during the performance of the testing. No structures are present on the remote site. Because a detailed investigation of the newly purchased undeveloped land and the remote Pavilion Test site could not be performed, neither are considered a part of the scope of this site assessment. Therefore, the investigation of the subject site was limited to the 65.9 acre main manufacturing parcel that is addressed as Gilbert Street, LeRoy, NY 14482. This site is situated to the east and west of Gilbert Street.

The subject site is located in a residential and agricultural use area. To the north of the subject site is Munson Street Extension, a Village of LeRoy recreation area, a credit

union and residences. To the east and south beyond Lapp's Gilbert Street property is Oatka Creek (formerly Allens Creek), followed by residential, agricultural and wooded areas. To the south and west of the site is a railroad line, beyond which are agricultural and undeveloped properties.

Approximately 25% to 30% of the subject site is developed. The entire site contains approximately 650,000 square feet or approximately 17 acres of total manufacturing and storage space under roof. Asphalt parking and storage areas surround the facility along Gilbert Street and the perimeter of the manufacturing areas. Gravel areas extend beyond the asphalt to provide easier access to both roofed and open air storage facilities as well as miscellaneous out buildings situated to the northeast, northwest, east, southeast and west of the main manufacturing areas.

(d) Topography and slope:

The subject property is relatively flat. The area to the east and northeast of the property immediately adjacent to Oatka Creek slopes steeply to the creek.

(e) Depth to groundwater/flow direction:*

Depth to groundwater is estimated to be approximately 15 - 20 feet. Based upon review of topographic maps the inferred regional ground water flow is the the east toward Oatka Creek.

(f) Surface water and wet areas (including streams, rivers, ponds, etc.):

Oatka Creek borders the subject property to the east, and three settling ponds are used for the clay wastewater system.

(g) Ditches/Drainage Features:

Except for a small drainage area to the southwest of the Gilbert Street serviced by outfall 001 that is diverted to Oatka Creek, the majority of onsite flow is to the east to Oatka Creek

*Unless otherwise noted, the groundwater flow direction has been inferred from a review of regional topographic data. Site specific conditions may vary due to a variety of factors, including geologic anomalies, utilities, nearby pumping wells (if present), and other developments.

2. Brief Description of Current Use In Terms of Products Made; Processes Used; Raw Materials Employed; Chemicals and Fuels Used; and Wastes Generated, Including Waste Disposal Facilities/Locations Used:

Lapp produces ceramic insulators, dead-end (assembly of suspension units designed to terminate the conductor at a structure) ethylene propylene diethylene monomer (EPDM) insulators, other EPDM insulators, and resin and condenser (oil) impregnated high voltage transformer bushings at their 65.87 acre facility.

Manufacturing functions east of Gilbert Street include high voltage transformer bushings and EPDM insulators. Other area activities and building usage include testing areas for the bushings, a machine shop, welding shop, a high voltage lab, a research development and engineering department, high voltage lab workshop, a vehicle and equipment storage building, flammable storage shed, acids and plating supply shed, finished product and shipping building, a receiving building and a hazardous waste/ waste oil/ virgin oils concrete pad.

West of Gilbert Street manufacturing functions center on the production of ceramic insulators from clay. Western area activities and building usage also support offices, carpenter shop, maintenance shop, ceramic lab, mechanical lab, electrical test area, plating operations (primarily in support of bushing manufacturing), boiler room, assembly area, shipping and cementing areas, clay wastewater settling ponds, storage and maintenance sheds, remains of an old incinerator for paper burning, three water towers, a rail spur and a Niagara-Mohawk power substation.

Products and Processes
Ceramic Insulators

Clays are transferred from the clay storage silos and mixed with a liquid known as "water glass" in subsurface cisterns and blunged or agitated to form a clay slurry. The slurry is screened by a filter press to remove excess water and formed into pugs, or clay cylinders.

The pugs are stored on pallets and later extruded with the application of cooling water into various insulator shapes and sizes. The extruded material is subjected to dryers for a period of 5 to 8 days. The insulators are then turned on lathes and redried to a 1% moisture level. The scrap dust from the turning operations is recycled and removed by a subsurface, electrically driven conveyor system. A conductive or standard glazing compound is applied to the insulators. The mixture of glazing compounds involves over 25 materials including ball clays, talc, flints and feldspars. The conductive glaze also includes the addition of a zinc

containing wax emulsion. The glazed material is then introduced into continuous gas fired kilns for a predetermined period of time. Once removed from the kiln and allowed to cool, the insulators are taken to the grinding area to prepare the surface for hardware installation. There the one end is ground using a diamond drill which is cooled with a water soluble grinding oil .

The insulators are then visually inspected for evidence of defects, prior to electrical testing. Insulators that pass the electrical testing are taken to the assembly area. Assembly consists of the application of a film of grease about the ground collar base to prevent the adherence of the portland cement which is added to secure the hardware to the grounded surface. The unit is then subjected to mechanical testing to insure the quality of the hardware adhesion. The final addition of hardware is completed in the shipping and storage area prior to packaging.

Dead-End EPDM Insulators and EPDM Insulators

This synthetic insulator is attractive because of its strength-to-weight ratio which is significantly higher than that of ceramic or porcelain insulators and would result in reduced tower costs. A dead-end or strain insulator is an assembly of suspension units arranged to dead-end the conductor at a structure. The design of such insulators must carry the full conductor tension and must take into account potential ice and wind loads. In the manufacturing of the synthetic EPDM dead-end insulator a stock polymer material is guided into a large press in which the material is extruded into prefabricated forms, pressed and thoroughly cured under the pressure and temperature of the unit. The plates of the mold are separated and the insulator forms removed and trimmed with a knife. According to facility personnel, the forms do not require the application of releasing agents. Compressed air is used to remove extraneous material from the mold area.

All synthetic insulators consist of a polymer coated fiberglass rod covered by weather sheds or skirts of polymer. A second press is used to extrude a stock polymer material into prefabricated forms. The press partially cures the formed EPDM sheds. The sheds are then cooled in a dry ice and methanol bath to allow easy assembly of the sheds onto the fiberglass rod. The sheds are spaced at specified intervals over the length of the rod. As the shed reaches ambient temperature it expands and adheres to the rod. The rod and sheds are then subjected to a final curing process.

Resin and Condenser (Oil) Impregnated High Voltage Transformer Bushings

Unlike the manufacturing of the ceramic insulators, the production of both the resin and oil impregnated bushings require metal working that involve the use of cutting oils, degreasers, plating and etching operations, welding, painting and extensive use of a variety of solvents for cleaning agents, form releasing agents, and testing media.

All bushings require the attachment of a compressed spring loaded bushing cap assembly to a stud. The stud consists of a cylindrical ring core, built up of thin iron laminations, about which is wound copper wire to form the secondary winding. Condenser bushings are made by winding predetermined thicknesses or layers of electrical kraft paper with metal (aluminum) foil around the metal stud or conductor and saturating the core with non-PCB containing transformer oil under vacuum. Resin impregnated bushings involve the injection of an epoxy resin under vacuum about the stud or conductor.

Transformer bushings are then enclosed in ceramic or porcelain sleeves that fit below a transparent glass expansion chamber or oil chamber and the bushing cap compression assembly. The transformer bushings are then filled with hot transformer bushing oil under a vacuum at elevated temperatures.

Mechanical testing involves the submersion of the bushings in a water tank under pressure to determine the integrity of the bushing seals. If the transformer bushing passes the mechanical testing then it is further subjected to electrical testing. By applying a voltage to the bushing while immersed in a tank of perchloroethelyene, the electrical response of the bushing can be determined. Bushings found to be within design standards may then be shipped.

Summary of Hazardous Materials Usage Areas

Methylene chloride, hexane and silicone, and tetrachloroethylene are used in the bushing manufacturing area (Building 25). 1,1,1 trichloroethylene is used in the degreasing room located in the southeastern corner of the machine shop (Building 23). Trim Sol containing 100ppm tetrachloroethylene is used in the machine shop (Building 23). Methanol and Chemlok 607, an epoxy hardner, are used in the area east of the machine shop and bushing manufacturing areas (Building 44). Trichloroethylene and asphalt paint with smaller quantities of toluene are used in the receiving building (Building 31). Rydlyme, a descaling agent containing lead and chrome is used in the boiler area (Building 15). Nitric acid and caustic soda are used in the metal cleaning and etching operations in the plating room

(Building 1). Solvolene and Syntol (paint thinners) are used in the adjacent to the cementing operation (Building 1).

Oil Water Separators

Four oil/water separators currently exist onsite. They are located in the boiler room; across from the maintenance room at the steam degreaser; adjacent to the cementing and assembly area; and, in the bushing manufacturing area. The separators were added in an attempt to reduce the quantities of waste oil/water being shipped offsite for reclamation or disposal. The assembly area sump is an epoxy coated concrete sump installed in 1980, while the steam degreaser sump is not lined. Two 275 gallon waste oil tanks were installed to receive the separated oil from the epoxy coated sump and the bushing manufacturing area. According to facility personnel these two areas produce the bulk of reclaimed waste oil. No unusual observations were made with regard to the area around thses two waste oil tanks.

Boiler Room

The boiler room (Building 15) contains water conditioning chemicals used for the treatment of the boiler make-up water. Boiler blowdown is returned via a trench system to the wooden storage tank. The boiler vents to the sanitary sewer and to outfall 006. According to facility personnel, Rydlyme, a pipe cleaning and descaling agent, is considered a hazardous material since it contains chromium and lead.

A former boiler room was located in the vapor degreasing operations area located southeast of the machine shop (Building 23), east of Gilbert Street, according to facility personnel.

Vapor Degreasers

Two vapor degreasers containing 1,1,1 trichloroethane are located southeast of the machine shop and utilize approximately 14,000 gallons per year. The older unit was placed in service reportedly in the 1950's and is steam heated; the second unit is electrically heated and was purchased in the 1970's. There is a floor drain below the units that was originally in place for the old boiler unit and was changed to an 6" elevated sealed drain in the 1980's. According to facility personnel, no release to this drain from the vapor degreasers is known to have occurred; all spills have reportedly been contained on the concrete floor prior to exiting the doorway or the drain.

Air Compressor Blowdown Locations

A majority of the equipment at the subject facility is either electric or pneumatically driven. The compressed air lines run parallel to the ceiling and the compressor blowdown takes place at a number of internal locations. These areas are identifiable by the presence of a waste oil drum beneath a relief valve. The areas surrounding the equipment and the drums are often wet with oil and contained by the application of speedidri or similar absorbants. The majority of the floor drains in the operating areas have been sealed. On one occasion a drum was observed to be notably overflowing with oil. However no nearby floor drains were observed in that location.

Waste Disposal Facilities/ Locations Used

The subject facility currently uses Safety Kleen from East Avon, NY to recycle their waste oil, and Frontier Chemical Waste Process from Niagara Falls, New York. Solid wastes, including trash, is disposed of in the Albion Landfill in Albion, NY by Albion Disposal a.k.a. I&J Disposal Service. Between 1975 and 1988 the Dintruff Quarry in LeRoy, NY was used for the disposal of solid wastes such as cardboard and clay cement. Facility personnel do not know if that facility ever received hazardous wastes. Prior to 1975 the solid waste handlers were not known. Scrap metal is handled by Art Bash from Batavia, NY, however, facility personnel did not know the recycling facilities ultimately receiving the scrap metal. The municipal sewer system has reportedly received only sanitary wastes via outfall 008 since 1965. Prior to 1965, individual building restrooms were reportedly tied to separate septic systems.

The listing of waste disposal facilities used was developed on the basis of interviews conducted with facility personnel and a review of selected facility RCRA annual report files or hazardous waste manifests for the years 1988, 1989, 1990 and 1991 only. Facility annual reports submitted to NYSDEC prior to 1990 did not contain transporter and disposal facility information required for this search. For the years 1988 and 1989, individual manifests were reviewed to obtain the necessary information. We have conducted no other independent check on this issue, nor can we be assured that the information received is complete. The following facilities were reported to have received wastes from Lapp since 1988:

Facility Locations

Frontier Chemical Waste Process, Niagara Falls, NY
Petro Chem Processing, Detroit, MI
Detrex Corporation, Detroit, MI

ENSCO, Inc., Eldorado, AR
Detrex Corp./ Gold Shield Solvents Division, Detroit, MI
Detrex Corp./ Gold Shield Solvents Division, Euclid, OH
GSX Chemical Services of Ohio, Inc., Cleveland, OH
GSX Chemical Services, Inc., Cleveland, OH
Aqua-Tech, Port Washington, WI
Chem Met Services, Wyandotte, MI
Chemtron Corp., Avon, OH
Environmental International Elect. Services, Kansas City, MO
Michigan Disposal, Inc., Belleville, MI
Environmental Enterprises, Cincinnati, OH

3. Selected Facility Information:

(a) Septic tanks/leaching fields:

According to facility personnel,septic systems were located in the areas near the lavatories and received no process wastes. Process wastes historically have been discharged to the Oatka Creek.

(b) Sanitary sewers:

The facility was reportedly connected to the Village of LeRoy municipal sewer system in 1965.

(c) Process wastewater sewers:

X The only process wastewater that the sewer receives is reportedly from the boiler room. All other discharges are believed to be associated with the sanitary sewer tie-ins.

(d) Facility water supplies (potable and process):

All facility water has been received through the Village of LeRoy water department since 1917. No other water sources are utilized.

(e) Above and underground storage tanks:

Underground and Aboveground Storage Tanks

Pursuant to the Hazardous Substance Bulk Storage and Petroleum Bulk Storage registration requirements of the New York State Department of Environmental Conservation (NYSDEC), eleven (11) above ground storage tanks have been registered (see Exhibit C for copy). The state registration requirements do apply to underground process tanks, sumps or tanks containing transformer or bushing oils.

Twenty-three (22) storage tanks (above and below ground) are known to have existed on the subject property (excluding non-regulated process tanks and sumps). Seven (7) were underground (USTs) while fifteen (15) were located aboveground (ASTs). The seven (7) of USTs were removed between 1984 and 1987. These tanks are identified as follows:

Tank I.D.	Age (Years)	Capacity (Gal.)	Contents
None	23	20,000	Fuel Oil
None	23	20,000	Fuel Oil
1	12	30,000	Fuel Oil
2	12	30,000	Fuel Oil
8	19	300	Leaded Gasoline
9	28	500	Leaded Gasoline
14	8	550	Waste TCE

According to facility personnel, the tank graves of these USTs were visually inspected by Lapp personnel for signs of leakage, soil discoloration, or detectable odors were noted. With the exception of the removal of two of these USTS, there was no independent oversight of the tank pulls. Two of the USTs were removed in the presence of Mr. Daniel Callahan of the County of Genesee Health Department who did not observe any subsurface contamination (see Exhibit C for Callahan letter of December 24, 1987).

At the time the UST regulations came out (1986-87), Lapp mistakenly registered four additional tanks which have since been determined by the NYCDEC as constituting process tanks which do not require registration. A copy of the state's letter to this effect is also contained in Exhibit C. All four tanks contain transformer oil (non-PCB containing) and are located in and around the machine shop area (Building 44). These included a 12,000 gallon tank (23 years old currently), a 12,844 gallon tank (37 years old), a 2,000 gallon tank (unknown age), and a 2,800 gallon tank (unknown age). A copy of the registrations for these tanks is provided in Exhibit C. All of these unregulated tanks continue to exist. With the esception of the 12,844 gallon tank, none has ever been tested for integrity. Lapp reported that they emptied the 12,844 gallon tank and an ultrasound test performed on March 16, 1990 to determine its structural integrity. According to facility personnel, the tank was deemed to be void of cracks or other structural problems. A copy of the ultrasound test is provided in Exhibit C.

Of the fifteen (15) aboveground tanks (ASTs), four (4) have been removed, or removed and replaced (R*); they are characterized as follows:

Tank I.D.	Age (Years)	Capacity (Gal.)	Contents
3	7	12,000	Fuel Oil
4 (R*)	Unknown	4,000	Diesel Fuel
11	24?	300	Leaded Gasoline
13	6	20,000	Fuel Oil

The remaining eleven (12) onsite non-process related aboveground tanks contain waste oil (4), diesel fuel (2), unleaded gasoline (2), 1,1,1 trichloroethylene (TCA) (1), and perchloroethylene (3). These tanks range in size from 275 to 20,000 gallons and range in age from six to thirty-nine years old. The oldest tank is scheduled to be removed from the site by September 20, 1991, according to facility personnel. As of the date of the site investigation this TCA-containing tank had reportedly been cleaned, but not removed.

The visual inspection of the areas surrounding the above ground tanks did not result in the identification of any significant spill areas. Fill ports around the underground tanks also were observed to be generally well-maintained.

(f) Electrical transformers/capacitors:

Five general exterior transformer locations exist; these contain a total of included 15 transformers owned by Lapp. From transformer oil laboratory analyses provided by Lapp (March 30, 1987; August 8, 1988) and correlated with a transmission line routing plan from December 23, 1986, and employee recollections resulted in the identification of 2 transformers as of the dry type, with 12 of the remaining 13 transformers being identified as non-PCB contaminated (<50 PPM) oil transformers (See Exhibit B). The 13th transformer is believed to be a 10KVA oil cooled, pole mounted transformer located near the Niagara-Mohawk substation. Of the 12 tested, only 3 were initially found to contain PCB concentration greater than 50 ppm. These roof top transformers were subsequently retrofilled and retested in 1988 (See Exhibit B). There is no known history of leakage from the 13 exterior oil cooled transformers. No roof inspections were performed.

Seven general interior transformer locations included eight dry type transformers according to facility personnel. Four oil filled transformers are stored but not operational within the Quonset Hut, a storage building located northwest of the ceramic manufacturing area. According to the same data provided for the exterior transformer oil analysis on March 30, 1987, the stored, oil-filled transformers were not found to be PCB contaminated (See Exhibit B). According to employee recollections, these transformers were purchased used and have never been placed into service.

According to a July 26, 1989 letter from Batavia, Inc. to Lapp (see Exhibit B), seven capacitors also stored in the Quonset Hut were believed to contain PCB's based upon year of production and manufacturer. Origin and final disposition of these capacitors could not be determined from the available information. The capacitors were not observed within the hut during the facility inspection.

(g) Wells (active or abandoned monitoring, potable or process water supplies, injection, gas/oil):

No wells are reported to exist at the subject facility.

(f) Other:

None.

4. Observations Concerning Waste Management Practices at Site

(a) Date of site/facility inspection:

September 10 and 11, 1991

(b) Weather-related limitations:

None.

(c) Access-related limitations:

As part of the onsite facility inspection, the two newly acquired parcels west of the railraod tracks were inspected only for evidence of access and roadside debris. The Pavilion test location was not examined as part of this investigation. The roof of the facility was not inspected.

(d) General condition of interior areas:

(i) Process areas:

Process areas were fairly well kept. Occasional waste oil drums were scattered in these areas. Some minor spillage was noted.

(ii) Raw material/chemical supply areas:

Raw material and chemical supply areas were often cluttered or slightly disorganized. Evidence of a leaking drum was visable in the flammable storage building.

(iii) Waste storage areas:

Interior waste storage areas are fairly well contained.

(iv) Floor drains, sumps:

An extensive network of floor drains, clean outs and down spouts are located throughout the manufacturing plant areas east and west of Gilbert Street. A

majority of drains previously located in the machining, plating, boiler, bushing manufacturing and special porcelain areas were reportedly plugged around 1984; prior to that time, the drains discharged through any one of a number of additional outfalls to the creek.

The operations to the east of Gilbert Street that center upon bushing manufacturing and EPDM insulators involve the use of large concrete pits or vaults to enclose the process tanks. These concrete vaults contain sumps to continually pump the groundwater to outfall 004. Facility personnel report that if the sump pumps go down in this area then the vaults will fill with groundwater. The concrete vaults were reportedly built between 1952 to 1954 at the time of building construction.

Two perchloroethylene tanks used in the electrical testing of the bushings contain two sumps each. The sumps are located below the base of the tanks, one is for the discharge of ground water to outfall 004, the other is for emergency overfill protection. According to facility personnel, an angle iron is welded to the base of the tank to prevent accidental flow to the groundwater sump.

Two waste oil sumps are located onsite in conjunction with the oil/water separators. One sump is epoxy lined the other is not. There has not been an inspection or testing program in place for these sumps.

(v) Other:

The extent and history of an asbestos identification and removal program at the subject facility could not be determined from facility personnel. Reports concerning the extent of removal from previous projects such as the removal of the boiler room pipe insulation in April and May of 1991 were not available. According to facility personnel, all known asbestos removal has been conducted by U.S. Thermal from Rochester, NY. Facility personnel indicated that two removal areas in the building and ground's lunch room and the clay unloading area have been targeted for 1992. The estimated costs for these areas was reported as approximately $27,200.

(e) General condition of exterior areas:

(i) Process areas:

Exterior process areas were well maintained.

(ii) Waste storage areas:

Waste storage areas were fairly well maintained, however use of permeable surface storage area, for chemical or waste transfers, or for drums awaiting deposition, is not advisable. The area immediately around the hazardous waste concrete pad was found to contain areas of stressed vegetation, most likely the resut of spillage from the drums stored in the area.

At the time of the facility inspection, a drum of solvolene was leaking from the bung to the concrete.

(iii) Loading/unloading docks:

Unloading and loading docks associated with the former shipping operations are no longer in use. The area is being used for the collection of reyclable cardbord and other materials. The receiving area associated with the rail spur is also well maintained.

(iv) Tank fill locations:

The tank fill locations were well maintained. No signs of spillage were noted, or reported in association with filling activities.

(v) Catch basins:

No notable sheens were observed in the facility catch basins. Discharge from these catch basins is diverted to Oatka Creek.

(vi) Other:

None.

(f) Other observations:

(i) Discolored soils:

A 2' to 3' diameter concrete cylinder (with a reported dirt base) containing a liquid with an oily layer, was situated at the southeastern end of the pad. The concrete pad was pitched to a drain that discharges to the unlined concrete cylinder. Facility personnel periodically draw off the water beneath the oily layer and skim the surface to recapture the waste oil.

Staining to the soil area around the pad was noted in two location covering approximately 12 square feet. Waste oil drums and waste grinding material (soluble waste oil and sludge) were noted on pallets stored in scattered areas on the grass.

The flammable storage building is located east of the shipping and receiving buildings. The interior of the building was wet with what appeared to be the contents of a leaking drum. Examination of the rear of the building revealed a 4" wide cracked foundation that was wet. The hole had been filled with speedidri at some point. Facility personnel have reported that there was no actively leaking drum in the building. The spill was the result of an earlier hydraulic oil drum leak that had since been removed.

Outside the boiler room, workers were observed cleaning roofing equipment with white kerosene on the asphalt surface. The area was blackened from current and/or previous practices in the area. Kerosene containers were left open and subjected to heavy rainfall events. According to facility personnel, the material will eventually be taken to the hazardous waste pad. The asphalt area outside the doorway was also observed to have bubbled and deteriorated.

The drums found amongst the porcelain and the brush and gravel to the south had been removed by the second day onsite. They were found west of the special porcelain building. The one full drum had been punctured to remove the contents and had stained the soil in the area. Other scrap drums were located there as well. The total effected soil stained area was approximately 15 to 20 square feet.

The drum rack storage area, located west of the railspur and the clay making area, showed signs of historic staining to the gravel base. The total drum area was estimated to cover 50 by 25 feet. The facility recycles its drums without cleaning the drums of its prior contents. Often the original drum labels remained next to the hazardous waste labels or non-hazardous waste labels.

(ii) Discolored water:

No water discoloration was observed, except in the concrete collection cylinder used to collect concrete pad runoff associated with the hazardous waste storage area concrete pad.

(iii) Unusual odors:

None detected.

(iv) Unusual vegetative conditions:

Small stressed vegetation were noted in the exterior hazardous waste collection area.

(v) Other observations:

Hazardous wastes were not always appropriately labelled. Some of the writing had also bleached off the tags. Eleven drums of hazardous waste were observed to have been stored in excess of 90 days, while 5 drums had been stored greater than 240 days.

The rail spur area and the railroad track area did show signs of surface staining.

PART III: SITE HISTORY AND DESCRIPTION OF SURROUNDING LAND USES

1. Description and Former Uses of Site, Including Dates Where Known, and Other Relevant Information Concerning Waste Generation, Disposal, and Underground Tanks:

History

In January 1917 Lapp Insulator Company, Inc. purchased a parcel of land west of Gilbert Street and contiguous with the railroad from R. Heaman, a farmer. Facility personnel report the initial parcel to have been farmland. The history of parcel acquisitions by Lapp, as evidenced by survey maps from 1924, 1930 and others from facility records, indicates the adjacent land subsequently purchased by Lapp was farmland. The closest industrial use present in the area was the LeRoy Salt Company's hydroelectric station that operated downstream on the now Oatka Creek Dam according to the 1924 survey map. Notations as to the location of homes, barns, and hen coops were also noted. A 1940 survey map identifies a Socony-Vacuum Oil Company (now Mobil) pipeline easement through the southern portion of the Lapp property.

Many of the farm houses over time have been razed to allow for expansion of the manufacturing operations. Facility personnel believe these homes due to the placement of the natural gas line were serviced by natural gas rather than oil. During demolition activities in the last 25 years, no fuel oil tanks associated with the farms are reported to have been discovered.

In 1968 and 1971 Lapp transferred title of its most northern parcels (the area near the old hydroelectric station) to the Village of LeRoy for street expansion and renovation and the erection of a recreation area. Lapp continued to expand its property portfolio through 1991 and holds approximately 79.5 acres in the Gilbert Street area and an additional 39.7 acres at the Pavilion site, for an approximate total of 119.2 acres. A 1976 Factory Mutual System fire insurance map, as updated by facility personnel, identifies the buildings by number and year of construction. The map documents the latest expansion or revision to the subject property in 1991.

Waste Generation and Disposal

Wastewater

Pursuant to NYSDEC SPDES Permit NY0000779, outfalls 001, 004, 006 and 007 are currently permitted to discharge to Oatka Creek. Review of DMR reports for 1990 and 1991 revealed only minor excursions from the permit limitations. According to facility files, the excursions were promptly addressed and appear to have been resolved to the satisfaction of the NYDEC. The current facility permit expired April 1, 1991. A renewal application was submitted to the NYDEC in October 1990. The facility has received a draft renewal permit that significantly increases the number of parameters and analytical testing frequency at the outfalls. According to facility personnel, the new permit application was prepared in accordance with the new New York State storm water regulations. Lapp has protested the proposed draft permit and cited an anticipated increase to its analytical cost schedule of approximately $60,000 per year if the proposed permit changes become effective.

Outfall 001 handles non-contact cooling water and drainage from the southwestern area of the facility near the railroad tracks. The flow at this outfall according to DMR reports and facility personnel is usually too low to take a grab sample for analysis; reportedly, there has not been any process flow to this area for over 18 months. Effluent parameters for 001 include flow, oil & grease, settleable solids, temperature and pH. Outfall 004 reportedly receives non-contact cooling water, process water and stormwater -- it also receives any groundwater pumped from the sumps located around the vaulted solvent tanks. Effluent parameters include flow, oil & grease, temperature and pH. Outfall 006 receives non-contact cooling water, plating room wastes, wash water and storm water and effluent parameters include flow, total aluminum, total copper, total cyanide, total lead, oil & grease, TOC, pH, temperature, total suspended solids, and settleable solids. Outfall 007 receives wastewater from the clay dewatering process and its parameters include flow, oil & grease, settleable solids, suspended solids and pH.

Outfall 002 south and north received plating wastes in the past. These wastes would have included chromium and tin in addition to current plating wastes that contain silver, aluminum, copper, lead and cyanide. Wastes from the cementing operation would also have entered outfall 002 prior to 1980. In 1984, outfall 002 south was reportedly cut and plugged. Prior to 1984, outfall 002 north received material from the machine shop floor drain (built 1952) and storm water runoff; since that time outfall 002 north has reportedly received storm water only.

Outfall 003 according to facility personnel has received only storm water since 1984; prior to that time, two floor drains in the bushing manufacturing area (Building 44 constructed 1965) also entered 003.

Outfall 005 has historically been utilized primarily for storm water discharge, however in 1985 two floor drains were plugged in the Research, Development and Engineering section (Building 24, built 1954).

Wastewater generated from the clay filter press is segregated into "clean and dirty" water based upon the turbidity of the water. Clean water is recycled and returned to the clean water tank; excess water is discharged via New York State Permit Discharge Elimination System (SPDES) outfall 006. Dirty water includes water from the area floor drains and troughs and wash up water. This water is treated with alum and a polymer to aid in the flocculation of the clay materials and pumped to the onsite settling ponds. The effluent is discharged via SPDES permit to outfall 007. The residual solids are excavated and have historically been taken to the Dintruff Quarry (1975 - 1988) and the Albion Landfill for disposal. With recent NYSDEC approval subsequent to TCLP testing on the pond sludge (see Exhibit D), the material has been determined to be non-hazardous and may be utilized as fill. Historically, glazes that would have been ultimately discharged to the pond would have included barium, nickel and zinc. The characterization of the settling ponds' bottoms and sides have not been undertaken.

Waste Storage Areas

The hazardous waste/waste oil/virgin oil/miscellaneous solvents concrete pad was reportedly built in 1977. Prior to 1977 facility personnel were not aware of where hazardous wastes or chemicals were stored. The pad was believed to have been originally constructed as a waste oil pad to handle the increased waste oil generated prior to the installation of the oil water separators, and only later came to be used for the storage of hazardous wastes as room became available.

Waste Disposal Locations

According to visual site observations and discussions with facility personnel, the most northern and southern portions of the now existing east tract across Gilbert Street, has historically been used for the deposition of unwanted ceramic insulators, construction debris and other materials. Within the southeastern area off Gilbert Street four unmarked rusty drums were observed within the brush and fill area. Three bung type drums were rusted

through and empty, the fourth seemed to contain some type of unknown product or waste material. The following day facility personnel found the fourth barrel to have contained an unknown liquid waste product.

Underground Storage Tanks

Seven (7) USTs were are known to have existed on the subject property (excluding non-regulated process tanks) and were removed between 1984 and 1987. These tanks are identified and discussed under on page 10 of this exhibit under item 3(e).

2. Description of Current and Former Uses of Properties Abutting or Adjacent to the Site, Including Relevant Information Concerning Potential Waste Generation and Underground Tanks:

To the north of the subject site is Munson Street Extension, a Village of LeRoy recreation area, a credit union and residences. To the east and south beyond Lapp's Gilbert Street property is Oatka Creek (formerly Allens Creek), followed by residential, agricultural and wooded areas. To the south and west of the site is a railroad line, beyond which are agricultural and undeveloped properties.

The surrounding area has historically been used as undeveloped wooded land and farmland, with the exception of the railraod. No underground tanks are known to exist on the adjacentparcels and no industrial wastes besides herbicides and pesticides are known to be utilized.

3. Description of Other Potentially Significant Land Uses Currently Situated Within a Minimum of 250 Feet of Site:

None were identified.

PART IV: INVENTORY OF SENSITIVE RECEPTORS IN SITE VICINITY

1. Wells/Potable Drinking Water Supplies Within a Minimum of 1,000 Feet:

According to facility personnel the Village of LeRoy has supplied water to the community since at least 1917; all residential homes in the area are reportedly serviced by the Village of LeRoy water department.

2. Residences Within a Minimum of 1,000 Feet:

Residential areas are located north of the subject site along Gilbert and Munson Street, toward the town. Other farmhouses and homes are located to the southwest and to the northeast. Prior to the expansion of the municipal sewer system in the 1960's, theresidential areas were reportedly serviced by septic systems.

3. Significant Wet Areas/Surface Water Bodies Within a Minimum of 1,000 Feet:

Oatka Creek, formerly known as Allen's Creek, abuts the property to the east.

4. Other Sensitive, Off-Site Receptors Within a Minimum of 1,000 Feet:

No industrial facilities, gas stations or other significantly identified operation exist within 1000 feet of the subject property. An electrical substation owned and operated by Niagara-Mohawk Electric Co. is located on property owned by Lapp Insulator Co. This substation has reportedly been in service since the 1967. A previous Niagara-Mohawk substation was also located to the west of the Gilbert Street facility. No information concerning the type of transformers used at this location, or incident of releases was known. The structural framework of the unit remains onsite, but the associated substation hardware has been removed. The old substation was mothballed with the construction of the new station. A playground area and community swimming pool is located north of the facility along Munson Street Extension.

PART V: DESCRIPTION OF KNOWN OR SUSPECTED RELEASES OF HAZARDOUS MATERIALS OR PETROLEUM HYDROCARBONS

1. **Has the Subject Site ever been Listed on Any of the Following:**

	Yes	No
(a) National Priorities List (Superfund)		X
(b) CERCLIS Data Base (of Potential Problem Sites)	___	X
(c) State List/Inventory of Problem Sites	___	X

If "Yes", describe the listing, including lead agency, reason for listing, and current status of the case: [provide copies of any relevant reports, letters, or other supporting documentation]

Not Applicable.

2. **If the Facility or Site Has Not Been Listed in (1) Above, Has the Facility Ever Had a Release, Spill, or Leak of a Hazardous Substance or Petroleum Hydrocarbons or Has the Facility/Site Ever Been Investigated by a Governmental Agency for the Actual or Potential Presence of an On-Site Contamination Problem? If so, Describe the Circumstances Surrounding the Incident (Date, Source, Location), Including Any Notification Submitted or Received, the Agency Response and Current Status of the Matter: [Provide copies of any notification, relevant reports, letters, or other supporting documentation]**

The EDR report also contained copies of six Spill Response Forms concerning the Lapp facility. These are provided in Ehibit F. These all involved relatively minor incidents, with relatively limited quantities of materials released.

3. **Are There Any Sites Located Within a Minimum of 1,000 Feet of the Subject Site that are Shown on Either the National Priorities List of Federally-Designated/Proposed Superfund Sites, the U.S. EPA's CERCLIS Data Base List of Potential Problem Sites, or Any Comparable State List: for Each Identified Site, Describe Source of Listing, Approximate Distance and Direction Relative to Subject Site, and Whether or Not the Listed Site Appears to be in an Upgradient, Downgradient, or Parallel Hydrogeological Gradient Relative to the Subject Property:**

   No such sites have been identified.

PART VII: REFERENCES

1. **Persons Performing the Site Investigation (name, title, responsibility):**

   Linda A. McCarthy, Environmental Auditor; Site Investigation, Report Preparation
   Halley I. Moriyama, Vice-President; Quality Control Review

2. **Persons Interviewed (name, title, address, phone number):**

   Wayne Subject, Lapp Insulator Co., Gilbert St., LeRoy, NY (716) 768-6221
   Richard Graham, Lapp Insulator Co.
   David White, Lapp Insulator Co.
   Clark Godshall, Lapp Insulator Co.
   Calvin Clark, Lapp Insulator Co.
   Vinnie DeFelice, Lapp Insulator Co.
   Tom McVeigh, Lapp Insulator Co.
   Jim McGuire, Lapp Insulator Co.

3. Reports and Documents Reviewed:**

Factory Mutual Engineering Association, Factory Mutual System, Boston, MA, Fire Insurance Plan for Eagle Industries Inc., May 7, 1976, Revised October 16, 1990.

Survey Map, Land of Clevepak Corp., September 24, 1984

Map of the Lands of the Late Samuel Clifford, April 8, 1924

Map of the Buchanan and Yule Purchase, 1930.

Map of Part of the Lands of the Lapp Insulator Company, LeRoy, NY, February 1940

Lapp Insulator Co. Facility Files:

- Facility plans
- New York State DEC Annual Reports and Manifests (1988, 1989, 1990)
- SPDES Permit files and DMRs (1991, 1990)
- Air Permit Files (1986)
- Aboveground and underground tank files (as available)
- Historic survey files and maps

Envronmental Data Services, 3530 Boston Post Road, Southport, CT, Haz-zip Report, September 3, 1991.

**We have examined and relied upon the reports and documents listed above which are based on the professional expertise or knowledge of the authors thereof. We have not conducted an independent examination of facts contained in these reference materials and have assumed that the information set forth therein is true and accurate.

SIGNATURES AND QUALITY CONTROL REVIEW

BY: Linda A. McCarthy **DATE:** September 17, 1991

TITLE: Environmental Auditor

QUALITY CONTROL REVIEW BY: Halley I. Moriyama

TITLE: Vice President **DATE:** September 17, 1991

ENSR

Exhibit B
Data on Transformers and Capacitors

Westinghouse Electric Corporation
Switchgear Divisions

Distribution Apparatus Division
Box 341
Bloomington Indiana 47401
(812) 332 4421

March 21, 1980

Lapp Insulator Interpace Corp.
Frank Richens, Manager - Test Laboratories
Le Roy, NY 14482

Dear Sir:

Thank you for your letter concerning capacitor units with Style Number 791C982A01. We recognize your concern for eliminating hazards from your premises.

We are happy to report to you that the units in question do not contain PCB's. The units are impregnated and filled with castor oil, a non-PCB, non-contaminated fluid.

Westinghouse does not make these units anymore but we feel they are salvagable as is. In your letter you stated that the leaks occur at the cement joint of the hardware to the porcelain fitting. To eliminate or minimize leaks, you may want to tighten the gasket plates, top and bottom, especially the bottom plates of the units. The units would have to be dismounted. Small leaks that still occur pose no health hazard.

On worse case unit leaks, where fluid needs to be added, the top plug on the unit could be removed and the unit filled 98% full with electrical grade castor oil.

Again, thank you for your letter. If you have any further questions on the matter, please feel free to contact me.

Sincerely,

David Borman

Dave Borman
Marketing Representative

E. SPRAGUE BATAVIA, INC.
8440 Seven Springs Road
P. O. Box 376
BATAVIA, NEW YORK 14020

(716) 343-6000

1279

T Lapp Insulator Company
Gilbert Street
LeRoy, New York 14482-1393
Attn: David White

DEC 28 RECD

DATE 12/23/87 JOB NO.

JOB NAME Oil Samples/Tests

JOB LOCATION Lapp Insulator

TERMS

	DESCRIPTION	PRICE	AMOUNT
17	PCB/ppm Tests Oil Sample Tests		
	Completed 3/30/87		
	Test Results Attached		
	Original forwarded w/ Non-PCB		
	Labels 10 April 87 to Don Laurie		$1,700.00
	Add 7% Sales Tax		119.00
			$1,819.00

INVOICE AUDIT AND CODING
Spec Handling
Ext.
Price
Terms
PDS
QTY
Discount
Use Tax
VENDOR #
PO NO
CC
ACCOUNT
AMOUNT
CODE
Approval:
1-7-88
LAPP INSULATOR COMPANY

DUPLICATE
DO NOT PAY

ORIGINAL

Thank You

TRANSFORMER OIL SAMPLE TEST DATA

ITEM	SAMPLE I.D.NO.	KVA	MANUFACTURER	SERIAL NO.	LOCATION	DATE	TIME
1	1-03/30/87 Lapp	50	Std.	103692	Quonset	3/30/87	AM
2	2-03/30/87 Lapp	20	Light Elec.	154195	Quonset	3/30/87	AM
3	3-03/30/87 Lapp	37.5	Pitts.Tran.	703775	Quonset	3/30/87	AM
4	4-03/30/87 Lapp	37.5	Pitts.Tran.	708347	Quonset	3/30/87	AM
5	5-03/30/87 Lapp	??-No Name Plate		Westinghouse	Quonset	3/30/87	AM
6	6-03/30/87 Lapp	100	Moloney	775389	Nor.Pol.Bldg	3/30/87	AM
7	7-03/30/87 Lapp	100	Moloney	69528	Ctr.Pol.Bldg	3/30/87	AM
8	8-03/30/87 Lapp	100	Moloney	696529	Sou.Pol.Bldg	3/30/87	AM
9	9-03/30/87 Lapp	100	Moloney	99731	Nor.Pwr.Hse.	3/30/87	AM
10	10-03/30/87 Lapp	100	Moloney	99732	Ctr.Pwr.Hse.	3/30/87	AM
	11-03/30/87 Lapp	100	Moloney	99733	Sou.Pwr.Hse.	3/30/87	AM
12	12-03/30/87 Lapp	150	Elect.Mot.	?????	Nor.Blr.Hse.	3/30/87	AM

NOTES:

ITEM 1 less than 1.0 ppm

ITEM 2 less than 1.0 ppm

ITEM 3 11.0 ppm_____

ITEM 4 18.0 ppm_____

ITEM 5 01.0 ppm_____

ITEM 6 less than 1.0 ppm

ITEM 7 less than 1.0 ppm

ITEM 8 less than 1.0 ppm

ITEM 9 less than 1.0 ppm

ITEM 10 less than 1.0 ppm

ITEM 11 less than 1.0 ppm

ITEM 12 less than 1.0 ppm

BY E. SPRAGUE, BATAVIA, INC.

Douglas R Strang pres

TRANSFORMER OIL SAMPLE TEST DATA

ITEM	SAMPLE I.D.NO.	KVA	MANUFACTURER	SERIAL NO.	LOCATION	DATE	TIME
1	13-03/30/87 Lapp	150	Elect.Mot.	15777	Ctr.Blr.Hse	3/30/87	AM
2	14-03/30/87 Lapp	150	Elect.Mot.	15775	Sou.Blr.Hse	3/30/87	AM
3	15-03/30/87 Lapp	167.5	Gen.Elect.	B340258	Nor.on roof	3/30/87	AM
4	16-03/30/87 Lapp	167.5	Gen.Elect.	B340253	Ctr.on roof	3/30/87	AM
5	17-03/30/87 Lapp	167.5	Gen.Elect.	B340252	Sou.on roof	3/30/87	AM
6							
7							
8							
9							
10							
1							
12							

NOTES:

ITEM 1 less than 1.0 ppm

ITEM 2 less than 1.0 ppm

ITEM 3 222. ppm PCB contaminated

ITEM 4 223. ppm PCB contaminated

ITEM 5 146. ppm PCB contaminated

SEE 8-6-88 TESTS

ITEM 6 _____

ITEM 7 _____

ITEM 8 _____

ITEM 9 _____

ITEM 10 _____

ITEM 11 _____

ITEM 12 _____

BY E. SPRAGUE, BATAVIA, INC.

Douglas R. Strangpress

TRANSFORMER OIL SAMPLE TEST DATA

ITEM	SAMPLE I.D. NO.	KVA	MANUFACTURER	SERIAL NO.	LOCATION	DATE	TIME
1	je 7-7346 (by Lapp)	167.5	General Electric	B340258	North/Roof	08/06/88	
2	je 7-7347 (by Lapp)	167.5	General Electric	B340253	Centr/Roof	08/06/88	
3	je 7-7348 (by Lapp)	167.5	General Electric	B340252	South/Roof	08/06/88	
4	Above samples were supplied by Don Laurie						
5	08/06/88 and tested for ppm/PCB						
6							
7	TEST SAMPLES SUPPLIED INDICATE THAT ABOVE UNITS						
8	CAN BE LABELED AS NON-PCB.....Labels Attached						
9							
10							
11							
12							

NOTES:

ITEM 1 _6.2ppm PCB_____

ITEM 2 _7.5ppm PCB_____

ITEM 3 _6.2ppm PCB_____

ITEM 4 _____

ITEM 5 _____

ITEM 6 _____

ITEM 7 _____

ITEM 8 _____

ITEM 9 _____

ITEM 10 _____

ITEM 11 _____

ITEM 12 _____

8-6-86 Test Results after Retrofilling

BY E. SPRAGUE, BATAVIA, INC.

Douglas R. Strang yres

TST90112.1

JOB INVOICE

№ 1811

E. SPRAGUE, BATAVIA, INC.
P.O. BOX 376
3190 WEST Main ROAd
BATAVIA, NEW YORK 14021-0376

(716) 762-9350

PHONE	DATE OF ORDER
(716) 768-6221	07/31/89
ORDER TAKEN BY	CUSTOMER ORDER NUMBER
drs	P.O.#52411

[XX] DAY WORK [XX] CONTRACT [ ] EXTRA

TO: Lapp Insulator Company
Gilbert Street
Leroy, New York 14482-1393

Attn: Don Laurie

JOB NAME / NUMBER	
JOB#90726.1 - Oil Tests	
JOB LOCATION	
Lapp Quonset Storage Bldg.	
JOB PHONE	STARTING DATE
(716) 768-6221	07/26/89

JANTITY	MATERIAL	UNIT PRICE	AMOUNT	DESCRIPTION OF WORK
4	PCB/ppm Oil Tests	100.00	400.00	Take samples from "stored" transformers at Quonset Bldg and Lab Test
1	Sample ID #7-7349 drawn from 100Kva Moloney xfmr Ser.No. 900975 RESULTS: NONE DETECTED NON-PCB			Update oil sample data sheets
1	Sample ID #7-7350 drawn from 5Kva Standard xfmr Ser.No. 102033 RESULTS: 07.2PPM/PCB NON-PCB			
1	Sample ID #7-7351 drawn from 60Kva Hipotronics transformer Ser.No. 77-27649 RESULTS: NONE DETECTED NON-PCB			
1	Sample ID #7-7352 drawn from Westinghouse xfmr. no nametag or serial no. small brass tag #694 attached to cover RESULTS: NONE DETECTED NON-PCB			

OTHER CHARGES	AMOUNT
Lab Fees-Xportation-Mileage INCLUDED	
TOTAL OTHER ▶	

LABOR	HRS.	RATE	AMOUNT
INCLUDED			

TOTAL MATERIALS ▶ 400.00

TOTAL LABOR ▶

MS
t 30

DATE COMPLETED
07/31/89

RK OR BY
n rie
HORIZED SIGNATURE

I hereby acknowledge the satisfactory completion of the above described work.

TOTAL MATERIALS 400.00
TOTAL OTHER
TOTAL LABOR
TAX 28.00

TOTAL ▶ $428.00

July 26, 1989
PRP90726.1

Lapp Insulator Co.
Gilbert Street
Leroy, New York 14482

Attn: Don Laurie

RE: PCB Oil Tests of:
Used Transformers
and Capacitors

Gentlemen:

We make the following observations and comments based on our conversations of this date:

1) Ref. your PO # 52411 -

Test results for ppm/PCB's have been forwarded to your attention, with our invoice, ALL units are NON-PCB.

2) Your questions about seven Capacitors, on pallet, in Quonsset Storage Bldg.

Capacitor No.1 -

Mfgr:	Ohio Brass
Cat.No.:	Eng. Stor.
Ser.No.:	60-26561
Mfd.:	.6200Mfd
Volts:	34,500VDC

Capacitor No.2 -

Mfgr:	Ohio Brass
Cat.No.	51257-3001
Ser.No.	60-26561
Mfd.:	.6700Mfd
Volts:	34,500VDC

Capacitor No.3 -

Mfgr:	Ohio Brass
Cat.No.	56000
Ser.No.	59-15245
Mfd.:	.6700Mfd
Volts:	34,500VDC

Capacitor No.4 -

Mfgr: Ohio Brass
Cat.No. 56000
Ser.No. 59-15254
Mfd.: .6700Mfd
Volts: 34,500VDC

Capacitors No.5, 6 & 7-
Mfgr: General Electric
Description: "Pyranol Capacitor"
SEE ATTACHED Re: PYRANOL
Nameplate indicates that they contain
1.6 Gallons each

It is my opinion that all of the above capacitors are PCB capacitors.

While it may be fortunate that the capacitors are all "sealed units" (and not leaking), and therefore poses no emminent environmental problem, unfortunately samples can not be obtained for testing.

My opinion is based, first, on the fact that the General Electric capacitors are plainly labeled as "PYRANOL CAPACITORS" and Pyranol is a trade name used by GE for synthetic chlorinated hydrocarbons (PCB's) used as an non-flammable insulating media.

And secondly, the serial numbers on the Ohio Brass units indicate there date of manufacture from 1959 through 1961 and most or at least half of all capacitors manufactured during this period were of the PCB type, and, although I have not been able to confirm it, I believe the name "VAREX" on these units was another trade name for PCB's and indicate these units to be of the PCB type.

With this reasoning I have contacted, Margo, at:

ENSCO Environmental Services
10 Hazelwood Drive
Audubon Industrial Park
Amherst, New York 14150
Phone: (716) 632-0966

and she will be formulating a quotation for complete removal and destruction.

Respectfully submitted,

Douglas R. Strang, President
E. Sprague, Batavia, Inc.
Electrical Contractors

DRS:djr
PRP90726.1

TRANSFORMER OIL SAMPLE TEST DATA

ITEM	SAMPLE I.D.NO.	KVA	MANUFACTURER	SERIAL NO.	LOCATION	DATE	TIME
1	1-03/30/87 Lapp	50	Std.	103692	Quonset	3/30/87	AM
2	2-03/30/87 Lapp	20	Light Elec.	154195	Quonset	3/30/87	AM
3	3-03/30/87 Lapp	37.5	Pitts.Tran.	703775	Quonset	3/30/87	AM
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7	7-03/30/87 Lapp	100	Moloney	69528	Ctr.Pol.Bldg	3/30/87	AM
8	8-03/30/87 Lapp	100	Moloney	696529	Sou.Pol.Bldg	3/30/87	AM
9	9-03/30/87 Lapp	100	Moloney	99731	Nor.Pwr.Hse.	3/30/87	AM
10	10-03/30/87 Lapp	100	Moloney	99732	Ctr.Pwr.Hse.	3/30/87	AM
11	11-03/30/87 Lapp	100	Moloney	99733	Sou.Pwr.Hse.	3/30/87	AM
12	12-03/30/87 Lapp	150	Elect.Mot.	?????	Nor.Elr.Hse.	3/30/87	AM

NOTES:

ITEM 1 less than 1.0 ppm

ITEM 2 less than 1.0 ppm

ITEM 3 11.0 ppm_____

ITEM 4 18.0 ppm_____

ITEM 5 01.0 ppm_____

ITEM 6 less than 1.0 ppm

ITEM 7 less than 1.0 ppm

ITEM 8 less than 1.0 ppm

ITEM 9 less than 1.0 ppm

ITEM 10 less than 1.0 ppm

ITEM 11 less than 1.0 ppm

ITEM 12 less than 1.0 ppm

BY E. SPRAGUE, BATAVIA, INC.

_____

ENSR

Exhibit C
Above and Below Ground Tank Data

93-06-5 (11/90)

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
50 WOLF ROAD • ALBANY, NEW YORK 12233-3530
TELEPHONE NUMBER (518) 457-4351 OR 1-800-242-4351

HAZARDOUS SUBSTANCE BULK STORAGE REGISTRATION CERTIFICATE

Region Number 8

TANK NUMBER	DATE INSTALLED	TANK TYPE	CAPACITY	PRODUCT	
00006	03/52	Steel/Carbon Steel	6,760	00071-55-6	~~TCE~~ Solvent
00007	03/85	Steel/Carbon Steel	1,000	00079-01-6	Solvent
00013	09/82	Steel/Carbon Steel	275	00127-18-4	Solvent-
00014	09/82	Steel/Carbon Steel	275	00127-18-4	Solvent
00015	09/82	Steel/Carbon Steel	275	00127-18-4	Solvent
00016	10/90	Steel/Carbon Steel	549	00071-55-6	Solvent
00017	10/90	Steel/Carbon Steel	549	00071-55-6	

All above ground

#006 TO BE REMOVED BY 9-20-91

OWNER

LAPP INSULATOR CO.
GILBERT STREET
LEROY, NY 14482

SITE

LAPP INSULATOR CO.
GILBERT STREET
LEROY, NY 14482

OPERATOR (Name and Telephone Number)

LAPP INSULATOR CO.
(716) 768-6221

EMERGENCY CONTACT (Name and Telephone Number)

CALVIN J. CLARKE
(716) 768-6175

As an authorized representative of the above named site, I affirm under penalty of perjury that the information displayed on this form is correct to the best of my knowledge. Additionally, I recognize that I am responsible for assuring that this facility is in compliance with all sections of ECL Article 40, not just those cited below:

- The facility must be re-registered if there is a transfer of ownership.
- The Department must be notified within 3 business days prior to adding, replacing, reconditioning, or permanently closing a stationary tank.
- This certificate must be posted on the premises at all times. Posting must be at the tank, at the entrance of the site or the main office at the site where the storage tanks are located.
- Any person with knowledge of a spill, leak or discharge must report the incident to DEC within two hours (1-800-457-7362).

X R. L. Grunert 8/1/91
Signature of Authorized Representative/Owner Date

X R. L. Grunert
Name of Authorized Representative/Owner (Please Print)

X Vice President-Manufacturing
Title

ISSUED BY:
Commissioner Thomas C. Jorling

HAZARDOUS SUBSTANCE BULK STORAGE ID NUMBER
8-000118

DATE ISSUED 07/03/91

EXPIRATION DATE 07/07/93

FEE PAID
$ 475

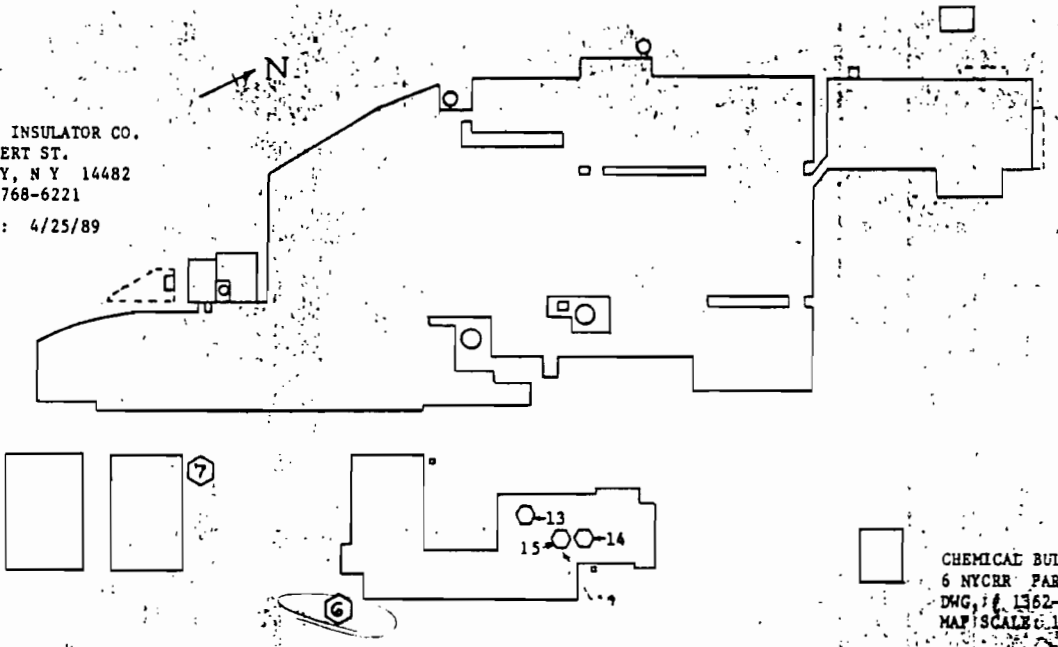
MAILING CORRESPONDENCE

CALVIN J. CLARK
LAPP INSULATOR CO.
GILBERT STREET
LEROY, NY 14482

THIS REGISTRATION CERTIFICATE IS NON-TRANSFERABLE

LAPP INSULATOR CO.
GILBERT ST.
LeROY, N Y 14482
716-768-6221

DATE: 4/25/89



CHEMICAL BULK STORAGE
6 NYCRR PART # 596
DWG. # 1362-C
MAP SCALE 1" = 200' ±

TANK #	TYPE	CONTENTS	CAS#	CAPACITY U.S. GAL.	DATE INSTALLED	NOTES
006	ABOVEGROUND	CHLOROTHENE SM - (DOW) 1-1-1 TRICHLOROETHANE 96.5%	71-55-6	6760	03/52	SUPPLY FOR TWO VAPOR DEGREASERS. ALSO CLEANING OPERATIONS INCLUDING ASSEMBLY AREA.
007	ABOVEGROUND	NEU-TRI (R) SOLVENT- (DOW) TRICHLOROETHYLENE 99.4%	79-01-6	1,000	03/14/85	ASPHALT COATING OF HARDWARE PARTS IN OPERATION.
013	ABOVEGROUND	PERCHLOROETHYLENE SVC - (DOW) TETRACHLOROETHYLENE 99.5%	127-18-4	275	09-82	REPLENISHMENT SUPPLY TANK FOR LARGE TEST TANK.
014	ABOVEGROUND	PERCHLOROETHYLENE SVC - (DOW) TETRACHLOROETHYLENE 99.5%	127-18-4	275	09-82	REPLENISHMENT SUPPLY TANK FOR LARGE TEST TANK.
015	ABOVEGROUND	PERCHLOROETHYLENE SVC - (DOW) TETRACHLOROETHYLENE 99.5%	127-18-4	275	09-82	EMERGENCY SPILL HOLDING TANK FOR LARGE TEST TANK AREA. NORMALLY EMPTY.

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

AVON, NY 14 (716) 226-2466

PETROLEUM BULK STORAGE REGISTRATION CERTIFICATE

FEE PAID 250

TANK NUMBER	TESTING DUE DATE	DATE LAST TESTED	TANK TYPE	CAPACITY	DATE INSTALLED
004	*		BARE STEEL	2,500	09/84
008	*		BARE STEEL	275	09/82
009	*		BARE STEEL	275	09/82
012	*		BARE STEEL	20,000	01/78

As authorized representative of the above named facility, I affirm under penalty of perjury that the information displayed on this form is correct to the best of my knowledge. Additionally, I recognize that I am responsible for assuring that this facility is in compliance with all sections of 6 NYCRR Parts 612, 613 and 614, not just those cited below:

- The facility must be reregistered if there is a transfer of ownership.
- The Department must be notified within 30 days prior to adding, replacing, reconditioning, or permanently closing a stationary tank.
- The facility must be operated in accordance with the Code for Storing Petroleum, 6 NYCRR Part 613.
- Any new facility or substantially modified facility must comply with the Code for New and Substantially Modified Facilities, 6 NYCRR Part 614.
- This certificate must be displayed on the premises at all times.

R. L. Grunert 6/18/90

Signature of Representative/Owner Date

* Aboveground tanks require monthly visual inspections and documented internal inspections every ten years as described in 6 NYCRR Part 613.

ISSUED BY:
COMMISSIONER THOMAS C. JORLING

PETROLEUM BULK STORAGE ID NUMBER
071404

DATE ISSUED
06/08/90

EXPIRATION DATE
12/30/91

OPERATOR
LAPP INSULATOR COMPANY
GILBERT STREET
LEROY NY
14482-1393

FACILITY
LAPP INSULATOR COMPANY
GILBERT STREET
LEROY NY
14482-1393

OWNER
LAPP INSULATOR COMPANY
GILBERT STREET
LEROY NY
14482-1393

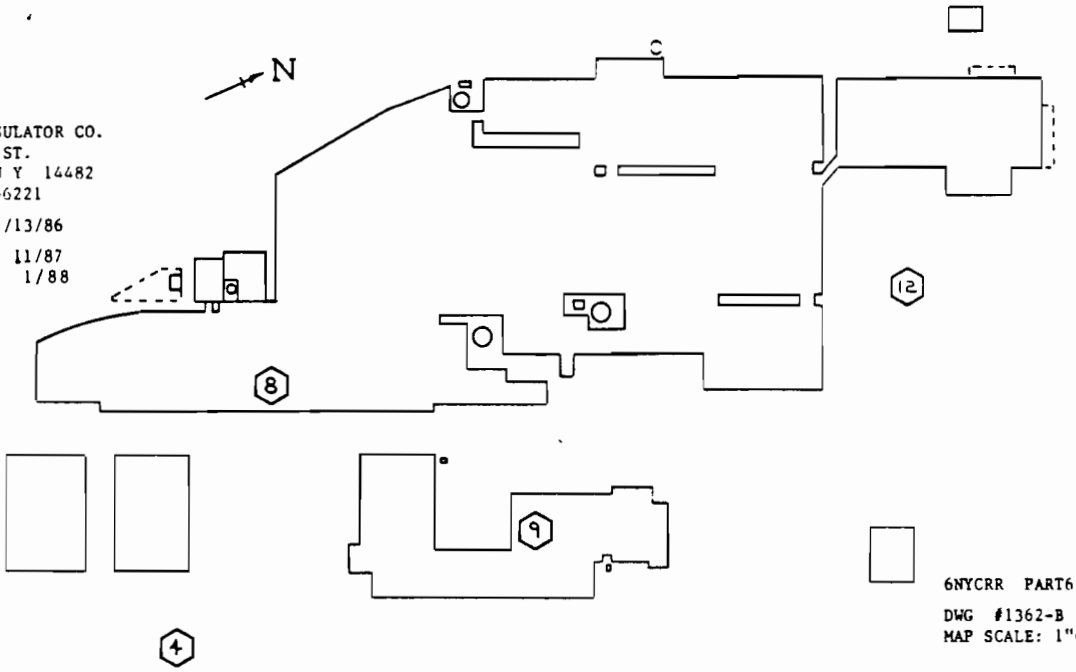
EMERGENCY CONTACT
CALVIN J CLARKE
6789 WESCOTT ROAD
STAFFORD NY 14143
(716) 768-6175

OWNER COPY

LAPP INSULATOR CO.
GILBERT ST.
LeROY, N Y 14482
716-768-6221

DATE: 1/13/86

REVISED: 11/87
1/88



6NYCRR PART612

DWG #1362-B
MAP SCALE: 1"=200'±

TANK#	TYPE	CONTENTS	CAPACITY U.S. GAL.	DATE INSTALLED	NOTES	DATE CLOSED
001					TANKS #001 & #002 REMOVED 1/88	12/87
002						12/87
004	ABOVEGROUND	UNLEADED GASOLINE	2,500	09/10/84	FUEL-TRUCK FLEET PROPERTY OF TOWNSEND OIL CORP. 64 MAIN ST. LeROY, N Y 14482	
008	ABOVEGROUND	WASTE OIL	275	05/02/82	RECEIVES WASTE OIL FROM AFL VTC OIL SEPARATOR	
009	ABOVEGROUND	WASTE OIL	275	09/24/82	RECEIVES WASTE OIL FROM AFL VTC OIL SEPARATOR	
012	ABOVEGROUND	DIESEL FUEL	20,000	01/31/78	FUEL - TRUCK FLEET	

Notification for Underground Storage Tanks

FORM APPROVED
OMB NO 2050-0049
APPROVAL EXPIRES 6-30-88

FOR TANKS IN **NY**

RETURN COMPLETED FORM TO: Bulk Storage Section, Division of Water
Dept. of Environmental Conservation
50 Wolf Road, Room 326
Albany, NY 12233-0001 (518) 457-4351

STATE USE ONLY
I.D. Number
Date Received

GENERAL INFORMATION

Notification is required by Federal law for all underground tanks that have been used to store regulated substances since January 1, 1974, that are in the ground as of May 8, 1986, or that are brought into use after May 8, 1986. The information requested is required by Section 9002 of the Resource Conservation and Recovery Act, (RCRA), as amended.

The primary purpose of this notification program is to locate and evaluate underground tanks that store or have stored petroleum or hazardous substances. It is expected that the information you provide will be based on reasonably available records, or, in the absence of such records, your knowledge, belief, or recollection.

Who Must Notify? Section 9002 of RCRA, as amended, requires that, unless exempted, owners of underground tanks that store regulated substances must notify designated State or local agencies of the existence of their tanks. Owner means:—
(a) in the case of an underground storage tank in use on November 8, 1984, or brought into use after that date, any person who owns an underground storage tank used for the storage, use, or dispensing of regulated substances, and
(b) in the case of any underground storage tank in use before November 8, 1984, but no longer in use on that date, any person who owned such tank immediately before the discontinuation of its use.

What Tanks Are Included? Underground storage tank is defined as any one or combination of tanks that (1) is used to contain an accumulation of "regulated substances," and (2) whose volume (including connected underground piping) is 10% or more beneath the ground. Some examples are underground tanks storing: 1. gasoline, used oil, or diesel fuel, and 2. industrial solvents, pesticides, herbicides or fumigants.

What Tanks Are Excluded? Tanks removed from the ground are not subject to notification. Other tanks excluded from notification are:
1. farm or residential tanks of 1,100 gallons or less capacity used for storing motor fuel for noncommercial purposes;
2. tanks used for storing heating oil for consumptive use on the premises where stored;
3. septic tanks;
4. pipeline facilities (including gathering lines) regulated under the Natural Gas Pipeline Safety Act of 1968, or the Hazardous Liquid Pipeline Safety Act of 1979, or which is an intrastate pipeline facility regulated under State laws;
5. surface impoundments, pits, ponds, or lagoons;
6. storm water or waste water collection systems;
7. flow-through process tanks;
8. liquid traps or associated gathering lines directly related to oil or gas production and gathering operations;
9. storage tanks situated in an underground area (such as a basement, cellar, mineworking, drift, shaft, or tunnel) if the storage tank is situated upon or above the surface of the floor.

What Substances Are Covered? The notification requirements apply to underground storage tanks that contain regulated substances. This includes any substance defined as hazardous in section 101 (14) of the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA), with the exception of those substances regulated as hazardous waste under Subtitle C of RCRA. It also includes petroleum, e.g., crude oil or any fraction thereof which is liquid at standard conditions of temperature and pressure (60 degrees Fahrenheit and 14.7 pounds per square inch absolute).

Where To Notify? Completed notification forms should be sent to the address given at the top of this page.

When To Notify? 1. Owners of underground storage tanks in use or that have been taken out of operation after January 1, 1974, but still in the ground, must notify by May 8, 1986. 2. Owners who bring underground storage tanks into use after May 8, 1986, must notify within 30 days of bringing the tanks into use.

Penalties: Any owner who knowingly fails to notify or submits false information shall be subject to a civil penalty not to exceed $10,000 for each tank for which notification is not given or for which false information is submitted.

INSTRUCTIONS

Please type or print in ink all items except "signature" in Section V. **This form must by completed for each location containing underground storage tanks.** If more than 5 tanks are owned at this location, photocopy the reverse side, and staple continuation sheets to this form.

Indicate number of continuation sheets attached: 0

I. OWNERSHIP OF TANK(S)

Owner Name (Corporation, Individual, Public Agency, or Other Entity)
LAPP INSULATOR CO.

Street Address
GILBERT STREET

County
GENESEE

City: LEROY | State: N Y | ZIP Code: 14482

Area Code: 716 | Phone Number: 768-6221

Type of Owner *(Mark all that apply ☒)*

- ☒ Current
- ☒ Former
- ☐ State or Local Gov't
- ☐ Federal Gov't (GSA facility I D no _____)
- ☒ Private or Corporate
- ☐ Ownership uncertain

II. LOCATION OF TANK(S)

(If same as Section 1, mark box here ☒)

Facility Name or Company Site Identifier, as applicable

Street Address or State Road, as applicable

County

City (nearest) | State | ZIP Code

Indicate number of tanks at this location: 20

Mark box here if tank(s) are located on land within an Indian reservation or on other Indian trust lands ☐

III. CONTACT PERSON AT TANK LOCATION

Name (If same as Section I, mark box here ☐)	Job Title	Area Code	Phone Number
DAVID T. WHITE	FACILITIES ENGINEER	716	768-6221

IV. TYPE OF NOTIFICATION

☐ Mark box here only if this is an amended or subsequent notification for this location.

V. CERTIFICATION (Read and sign after completing Section VI.)

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete.

Name and official title of owner or owner's authorized representative	Signature	Date Signed
David T. White, Facilities Engineer	David T. White	5/2/86

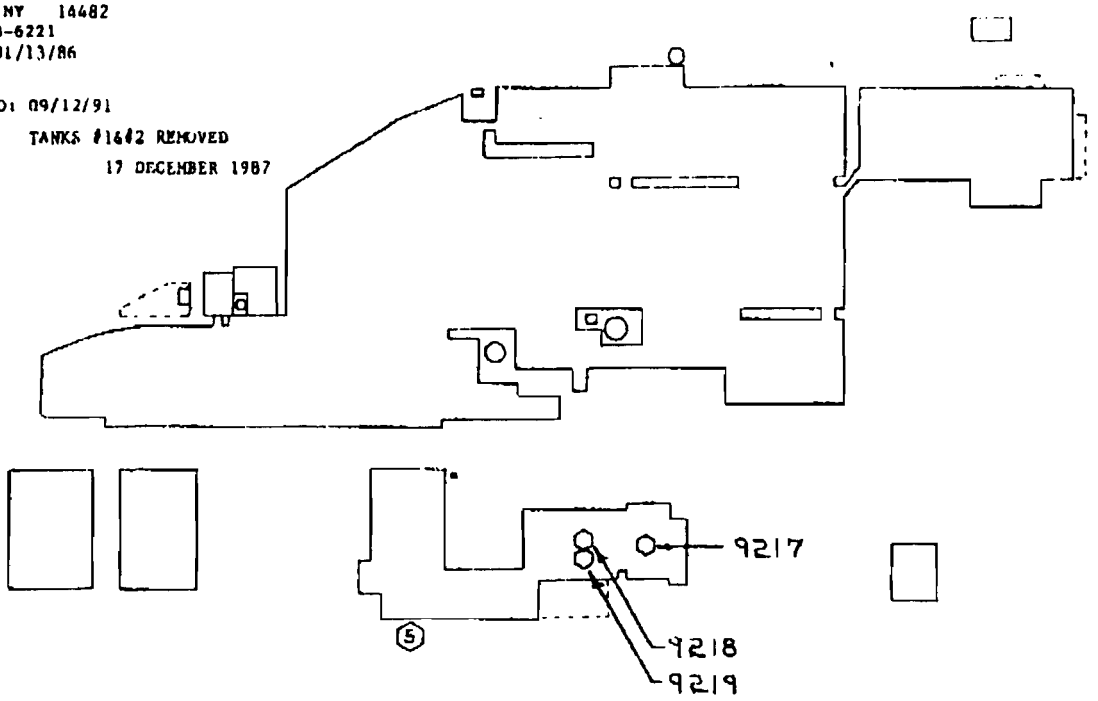
Owner Name (from Section I) LAPP INSULATOR CO Location (from Section II) SAME Page No. 1 of 1 Pages

VI. DESCRIPTION OF UNDERGROUND STORAGE TANKS (Complete for each tank at this location.)

	Tank No. 05	Tank No. 9217	Tank No. 9218	Tank No. 9219	Tank No.
1. Identification No. (e.g., ABC-123), or Arbitrarily Assigned Sequential Number (e.g., 1,2,3...)					
Status of Tank (Mark all that apply ☒) — Currently in Use	X	X	X	X	
Temporarily Out of Use					
Permanently Out of Use					
Brought into Use after 5/8/86					
2. Estimated Age (Years)	18	32	Unknown	Unknown	
3. Estimated Total Capacity (Gallons)	12000	11844	2000	2800	
4. Material of Construction (Mark one ☒) — Steel	X	X	X	X	
Concrete					
Fiberglass Reinforced Plastic					
Unknown					
Other, Please Specify					
5. Internal Protection (Mark all that apply ☒) — Cathodic Protection					
Interior Lining (e.g., epoxy resins)					
None	X	X	X	X	
Unknown					
Other, Please Specify					
6. External Protection (Mark all that apply ☒) — Cathodic Protection					
Painted (e.g., asphaltic)	X	X	X	X	
Fiberglass Reinforced Plastic Coated					
None					
Unknown					
Other, Please Specify					
7. Piping (Mark all that apply ☒) — Bare Steel	X				
Galvanized Steel	X				
Fiberglass Reinforced Plastic					
Cathodically Protected					
Unknown					
Other, Please Specify		None	None	None	
8. Substance Currently or Last Stored in Greatest Quantity by Volume (Mark all that apply ☒) — a. Empty					
b. Petroleum — Diesel					
Kerosene					
Gasoline (including alcohol blends)					
Used Oil					
Other, Please Specify	TRANS. OIL	TRANS. OIL	TRANS. OIL	TRANS. OIL	
c. Hazardous Substance					
Please Indicate Name of Principal CERCLA Substance OR Chemical Abstract Service (CAS) No.	64742-53-6	64742-53-6	64742-53-6	64742-53-6	
Mark box ☒ if tank stores a mixture of substances					
d. Unknown					
9. Additional Information (for tanks permanently taken out of service) — a. Estimated date last used (mo/yr)	/	/	/	/	/
b. Estimated quantity of substance remaining (gal.)					
c. Mark box ☒ if tank was filled with inert material (e.g., sand, concrete)					

LAPP INSULATOR CO.
GILBERT STREET
LEROY, NY 14482
716-768-6221
DATE: 01/13/86

REVISED: 09/12/91
TANKS #1642 REMOVED
17 DECEMBER 1987



FEDERAL LAW
SECTION 9002 RCRA
UNDERGROUND TANKS

DWG #1362-C
MAP SCALE: 1" = 200'±

TANK #	TYPE	CONTENTS	CAPACITY U.S. GAL.	DATE INSTALLED	NOTES
1					
2					
5	UNDERGROUND	TRANSFORMER OIL	12,000	03/68	PROCESS OIL - BUSHING MANUFACTURING
9217	TEST TANK UNDERGROUND	TRANSFORMER OIL	11,844	09/54	OPEN TOP BUSHING TEST TANK. 12'-0" DIA. 9'-9" BELOW GROUND, 4'-0" ABOVE GROUND
9218	HOLDING TANK	TRANSFORMER OIL	2,000±	01/86	USED TEST TANK - PURCHASED FROM OHIO BRASS CO. 4'-11" DIA. 9'-0" BELOW GROUND, 5'-0" ABOVE GROUND
9219	HOLDING TANK	TRANSFORMER OIL	2,800±	01/86	USED TEST TANK - PURCHASED FROM OHIO BRASS CO. 5'-10" DIA. 9'-0" BELOW GROUND, 5'-0" ABOVE GROUND

New York State Department of Environmental Conservation

274 East Avon-Lima Road; Avon, NY 14414
TELEPHONE: 716-226-2466 or 716-624-3350

Thomas C. Jorling
Commissioner

June 7, 1989

Peter J. Bush
Regional Director

Mr. D. T. White
Facilities Engineer
Lapp Insulator Company
130 Gilbert Street
LeRoy, NY 14482-1393

Dear Mr. White:

RE: Chemical Bulk Storage
Lapp Insulator
LeRoy (T), Genesee County

This is in response to your letter of May 19, 1989 regarding Bulk Storage requirements.

We appreciate the tour of your facility on May 18, 1989. This visit provided an opportunity to evaluate measures necessary for compliance with New York State Chemical Bulk Storage regulations.

The bushing insulating oil is not a listed hazardous substance based on the MSDS provided by the manufacturer (Exxon). The product appears exempt from Petroleum Bulk Storage by definition, 6 NYCRR Part 613.1(c)(21). Also, we do not find components of the product listed under 6 NYCRR Part 597 of the Chemical Bulk Storage regulations. Therefore, registration is not required for this product based on initial review. A final review of this information will be conducted by our Albany headquarters. A copy of your letter and information has been forwarded to the Bureau of Information and Bulk Storage for a final determination. I shall contact you upon receiving final determination from that office.

Even though this product may not be a listed hazardous substance, methods of storage and handling should provide technology equal to or greater than the requirements of Bulk Storage regulations. We recommend that best available technologies be implemented to provide optimum environmental protection including safeguards to prevent spills and releases.

We appreciate your concern and cooperation regarding this matter.

Sincerely yours,

Gary L. Marsh
Principal Engineering Technician
Water Division

GM:FR:lm
cc: Genesee County Health Department

New York State Department of Environmental Conservation
6274 East Avon-Lima Road, Avon, New York 14414
TELEPHONE: 716-226-2466

Thomas C. Jorling
Commissioner

Peter J. Bush
Regional Director

July 17, 1989

Mr. D. T. White
Facilities Engineer
Lapp Insulator Company
130 Gilbert Street
LeRoy, New York 14482-1393

Dear Mr. White:

RE: Chemical Bulk Storage
Lapp Insulator
LeRoy (T), Genesee (C)

Our central office has completed a review of information regarding "Univolt 60". Their final determination is entirely consistent with the judgement referenced in my letter to you, dated June 7, 1989.

A copy of your Hazardous Substance Bulk Storage application was received at our regional office on July 3, 1989.

We appreciate your concern and cooperation regarding this matter.

Sincerely yours,

Gary L. Marsh
Principal Engineering Technician
Water Division

GLM:map

cc: Eric Wohlers, Genesee County Health Department

9-11-91

STORAGE TANK REMOVALS

2 - 20,000 GAL. FUEL OIL - 50% UNDERGROUND
INSTALLED 1961
REMOVED 1984 - SCRAPPED

#3 - 12000 GAL. FUEL OIL - ABOVE GROUND
PLACED 1977
REMOVED 1984 - SCRAPPED

#13 - 20 000 GAL FUEL OIL - ABOVE GROUND
NEW 1978
REMOVED 1984 - SOLD, CROCKERS FARM SERVICE

#8 - 300 GAL GASOLINE - UNDERGROUND
PLACED 1965
REMOVED 1984 - RETURNED TO TOWNSEND OIL Co.

#9 - 500 GAL. GASOLINE - UNDERGROUND
PLACED 1956
REMOVED 1984 - RETURNED TO TOWNSEND OIL Co

#11 - 300 GAL. GASOLINE - ABOVE GROUND
PLACED 196?
REMOVED 1984 - RETURNED TO TOWNSEND OIL Co.

4 - 550 GAL WASTE SOLVENT - UNDERGROUND
NEW 1978
REMOVED 5-7-86 - SCRAPPED

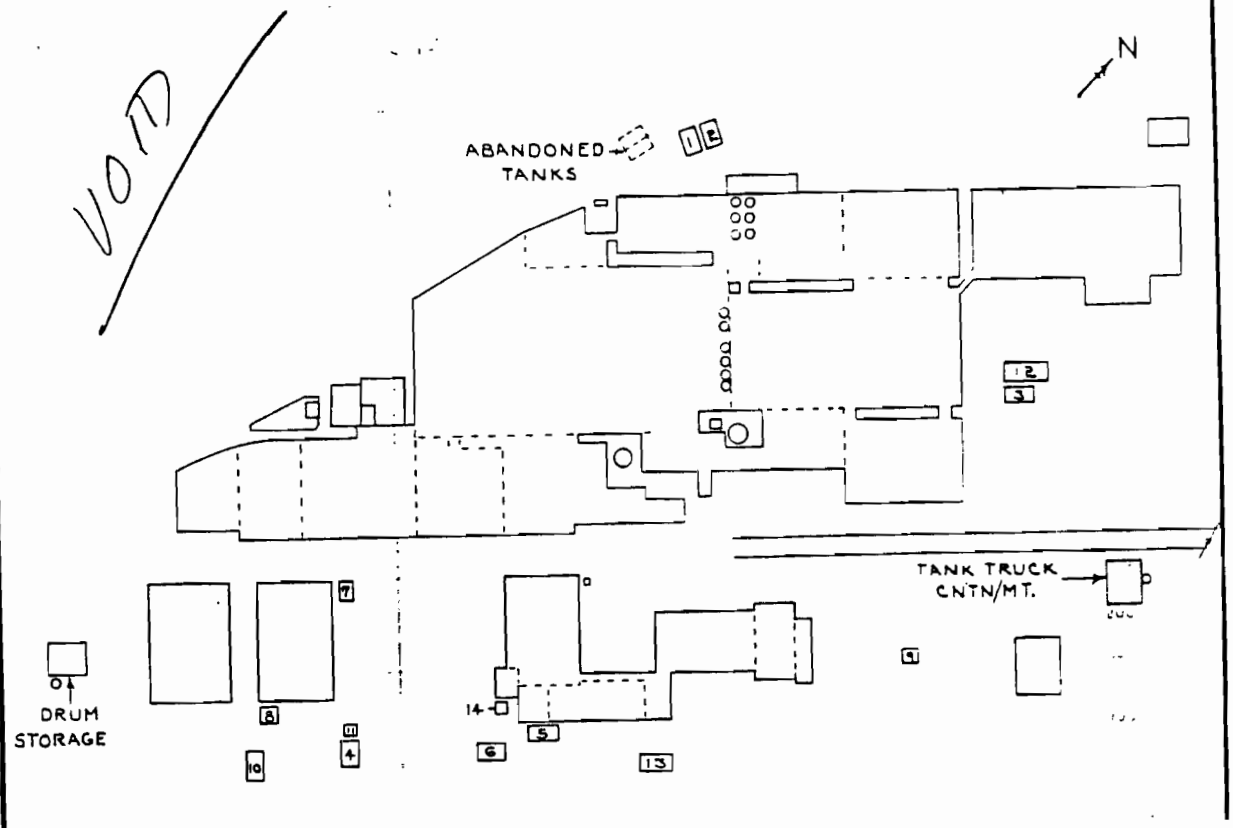
#1 & #2 30,000 GAL - FUEL OIL - UNDERGROUND
NEW 1975
REMOVED 12-17-87 - SOLD TO
A. D. CALL & SON
STAFFORD NY

LAPP INSULATOR

LE ROY, N. Y. 14482

REVISION	DATE

DWG. 1362-2	CAT. NO.
DATE 5-1-84	TITLE SPCC PLAN TANK LOCATION MAP
REF. 1362-2 9-27-76	DWN. / CHK. / APP.



#	CONTENTS TYPE	CAPACITY GALLONS	TANK #	CONTENTS TYPE	CAPACITY GALLONS
1 X	FUEL OIL UNDERGROUND	30,000	8 X	GASOLINE UNDERGROUND	300
2 X	FUEL OIL UNDERGROUND	30,000	9 X	GASOLINE UNDERGROUND	500
3 X	DIESEL FUEL ABOVE GROUND	12,000	10	L.P. GAS ABOVE GROUND	1,500
4 X	DIESEL FUEL ABOVE GROUND	4,000	11 X	GASOLINE ABOVE GROUND	300
5	TRANSFORMER OIL UNDERGROUND	12,000	12	FUEL OIL ABOVE GROUND	20,000
6 X	SOLVENT ABOVE GROUND	6,760	13 X	FUEL OIL ABOVE GROUND	20,000
7	SOLVENT ABOVE GROUND	1,000	14 X	WASTE SOLVENT UNDERGROUND	550

NEW #4 2500 GAL GASOLINE
1984

N

BRUNING 40-107 42859-1

COUNTY OF GENESEE
HEALTH DEPARTMENT

DONALD W. ROWE, Ph.D.
Public Health Director

3837 West Main Street Road
Batavia, New York 14020-9406

Phone: 344-2580

December 24, 1987

Mr. Jerry Call
A.D. Call & Sons
East Main Road
Stafford, N.Y. 14143

Re: Diesel Fuel Oil Tanks
Lapp Insulation
LeRoy, N.Y.

Dear Jerry:

This is to confirm the inspection and conference of December 17th, 1987, concerning the above-mentioned two 30,000 gallon in-ground storage tanks.

The excavation had the tanks completely exposed and there was no evidence of any leakage or contaminated soils. Since the tanks have been emptied and cleaned, no further permits will be requested.

If you have any questions regarding this matter, please feel free to contact this office any weekday morning between 8:30 and 10:00 am, at 344-2580, extension 492.

Sincerely,

Daniel J. Callahan, R.S.
Registered Sanitarian

DKCmfd

cc: Floyd Lee, Lapp Insulator
Wendy Walker, NYSDEC
Cheryl Bluey, NYSDEC

INTER-OFFICE CORRESPONDENCE

Lapp Insulator Company

LE ROY, NEW YORK 14482-1393

RECD 1-5-88 T.L. White

MEMO TO: For the Record

FROM: Floyd Lee

SUBJECT: Disposal of (2) 30,000 gallon diesel fuel tanks

DATE: December 30, 1987

This is to confirm that the ownership of the (2) above mentioned tanks have been transferred from the Lapp Insulator Company, LeRoy, NY, to the A.D. Call and Son of Stafford, NY.

Floyd Lee

Floyd Lee
Mfg. Services Supt.

cc: Wendy Walker - N.Y.S.D.E.C.
Cheryl Bluey - N.Y.S.D.E.C.
A. D. Call & Son - Stafford

jv/20

Dave

I Sent Copies To Above

Tony Lee

L & O Mechanical Contractors

3035 SHERWOOD RD. · PALMYRA, NEW YORK 14522 · (315) 597-5002

March 19, 1990

Lapp Insulator Company
Gilbert Street
LeRoy, New York 14482-1393

Dear Sirs:

We at L & O Mechanical Contractors would truly like to thank you for the business you provided us with. We hope you were satisfied and will keep us in mind if any of our services are needed in the future.

Sincerely,

Jerry Oswald, President

NOTE: Please send tax exempt certificate promptly.

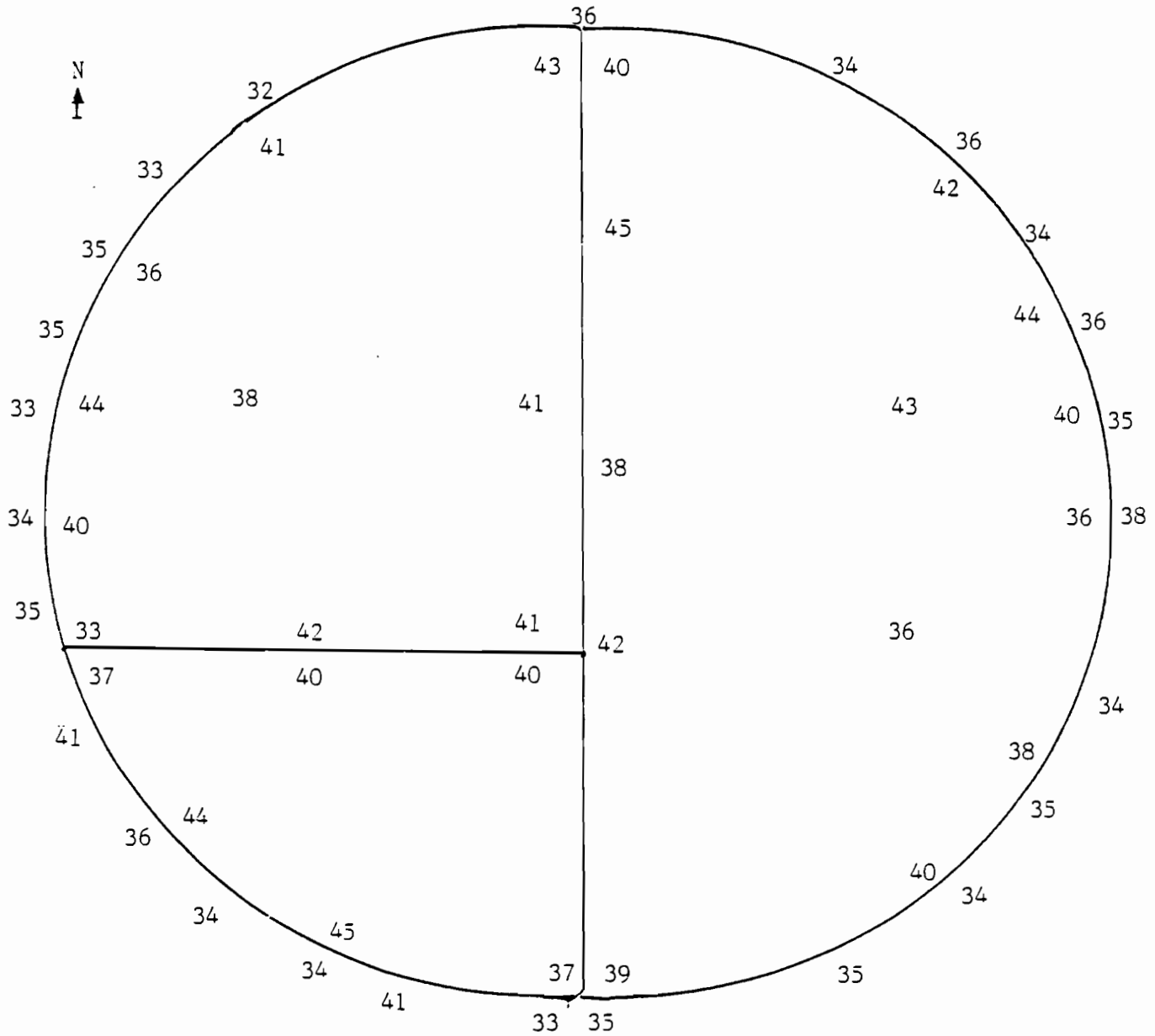
I Took Care of This

Thanks

L & O Mechanical Contractors

3035 SHERWOOD ROAD
PALMYRA, NEW YORK 14522
(315) 597-5002

ULTRASOUND TEST RESULTS
LAPP INSULATORS GILBERT STREET, LeROY N.Y.



12,000 GALLON 12' VERTICAL OIL TANK

Note: Readings are in tenths of an inch.

Visual inspection findings: Minor pitting (less than1/16") was found over 50% of the floor surface area. consultation with an engineer would be needed to interpret findings accurately.

MARCH 16, 1990
JOHN RINALDI

ENSR

Exhibit D
Sludge Sampling Data

FRONTIER ENVIRONMENTAL LABORATORIES, INC.

4626 Royal Avenue • M.P.O. Box 309 • Niagara Falls, New York 14302 • Phone (716) 285-2587 — FAX (716) 285-3521

Date: July 11, 1990

ANALYTICAL RESULTS
FOR

JEB Consultants
Suite 704, Brisbane Building
Buffalo, New York 14203

ENVIRONMENTAL LABORATORY ACCREDITATION PROGRAM (ELAP)
CERTIFICATION #10797

FIELD INFORMATION

Name of Collector: Gary Brown

ASSIGNED FEL# I.D.	SAMPLE I.D.#	SAMPLE TYPE	Site, Date and Time of Collection
4362-04	#4	Sludge	Site: Settling Pond Date: June 14, 1990 Time: 1110 hrs

Laboratory Information

Sample ID	Preservation Status Upon Acceptance	Date/Time Received
#4	Properly preserved and collected.	Date: June 14, 1990 Time: 1429 hrs

REPORT RELEASED BY: _____

FRONTIER ENVIRONMENTAL LABORATORIES, INC.

4626 Royal Avenue • M.P.O. Box 309 • Niagara Falls, New York 14302 • Phone (716) 285-2587 — FAX (716) 285-3521

DATE: July 11, 1990

ELAP# 10797

ANALYSIS FOR: JEB Consultants

FEL# 4362-04

SAMPLE ID	TEST METHOD		DETECTION LIMIT ppm	RESULT ppm
#4	Arsenic	EPA SW-846 (7061)	0.001	0.020
	Barium	" " (7080)	0.10	0.76
	Cadmium	" " (7130)	0.001	<DL
	Chromium	" " (7190)	0.001	0.003
	Lead	" " (7420)	0.01	0.04
	Mercury	" " (7470)	0.0002	<DL
	Selenium	" " (7741)	0.001	0.03
	Silver	" " (7760)	0.01	<DL

DL = Detection Limit

TCLP METHOD: 40 CFR, PART 268, APPENDIX I

FRONTIER ENVIRONMENTAL LABORATORIES, INC.

4626 Royal Avenue • M.P.O. Box 309 • Niagara Falls, New York 14302 • Phone (716) 285-2587 — FAX (716) 285-3521

DATE: July 11, 1990

ELAP# 10797

ANALYSIS FOR: JEB Consultants

FEL# 4362-04 SAMPLE ID: #4

PARAMETER	DETECTION LIMIT mg/kg	RESULT mg/kg
Vinyl Chloride	0.2	<DL
1,1-Dichloroethylene	0.2	<DL
Methyl ethyl ketone	0.2	<DL
Chloroform	0.2	<DL
1,2-Dichloroethane	0.2	<DL
Benzene	0.2	<DL
Carbon Tetrachloride	0.2	<DL
Trichloroethylene	0.2	<DL
Tetrachloroethylene	0.2	<DL
Chlorobenzene	0.2	<DL
1,4-Dichlorobenzene	0.2	<DL

DL = Detection Limit

TEST METHOD: EPA SW-846 (8260)

DIGESTION METHOD: TCLP, 40 CFR, PART 268, APPENDIX I

SURROGATE RECOVERIES	% RECOVERY
1,2-Dichloroethane D4	112
Toluene D8	100
4-Bromofluorobenzene	94

FRONTIER ENVIRONMENTAL LABORATORIES, INC.

4626 Royal Avenue • M.P.O. Box 309 • Niagara Falls, New York 14302 • Phone (716) 285-2587 — FAX (716) 285-3521

DATE: July 11, 1990

ELAP # 10797

ANALYSIS FOR: JEB Consultants

FEL# 4362-04 SAMPLE ID: #4

PARAMETER	DETECTION LIMIT µg/L	RESULT µg/L
o-Cresol	20	<DL
m-Cresol	20	<DL
p-Cresol	20	<DL
Cresol	20	<DL
2,4,6-Trichlorophenol	20	<DL
2,4,5-Trichlorophenol	20	<DL
Pentachlorophenol	20	<DL
Pyridine	20	<DL
Hexachloroethane	20	<DL
Nitrobenzene	20	<DL
Hexachlorobutadiene	20	<DL
2,4-Dinitrotoluene	20	<DL
Hexachlorobenzene	20	<DL

DL = Detection Limit

TEST METHOD: EPA SW-846 (8270)

DIGESTION METHOD: TCLP, 40 CFR, PART 268, APPENDIX I

SURROGATE RECOVERIES	% RECOVERY
Phenol D6	*
2-Fluorophenol	*
Nitrobenzene D5	77
2-Fluorobiphenyl	52
2,4,6-Tribromophenol	28
4-Terphenyl D14	69

* Surrogate Recoveries out of spec due to matrix effect.

FRONTIER ENVIRONMENTAL LABORATORIES, INC.

4626 Royal Avenue • M.P.O. Box 309 • Niagara Falls, New York 14302 • Phone (716) 285-2587 — FAX (716) 285-3521

DATE: July 13, 1990

ELAP # 10797

ANALYSIS FOR: JEB Consultants

FEL# 4362-04 SAMPLE ID: #4

PARAMETER	DETECTION LIMIT µg/L	RESULT µg/L
Lindane	0.10	<DL
Endrin	0.20	<DL
Heptachlor	0.10	<DL
Heptachlor Epoxide	0.10	<DL
Methoxychlor	0.50	<DL
Chlordane	1.0	<DL
Toxaphene	4.0	<DL

TEST METHOD: EPA SW-846 (8080)
DIGESTION METHOD: TCLP: 40 CFR, PART 268, APPENDIX I

PARAMETER	DETECTION LIMIT ppm	RESULT ppm
2,4-D	0.0005	<DL
2,4,5-TP (Silvex)	0.0005	<DL

DL = Detection Limit

TEST METHOD: EPA SW-846 (8150)
DIGESTION METHOD: TCLP: 40 CFR, PART 268, APPENDIX I

ENSR

Exhibit E
Environmental Data Resources Report on Tanks and Spills

TANK IDENTIFICATION NUMBERS: 001, 002, 004, 008, 009

STATE UST

DEFINITION: Transaction Code for a Tank

1 - REGISTER EXISTING TANK
2 - ADD TANK
3 - CLOSE REMOVE TANK
4 - MODIFY TANK

TANK NUMBER	DEFINITION
001	3
002	3
004	1
008	1
009	1

CAPACITY
DEFINITION: TOTAL NUMBER IN GALLONS

TANK NUMBER	CAPACITY (GALLONS)
001	30,000
002	30,000
004	25,000
008	275
009	275

CONTAINMENT
DEFINITION: Secondary Containment provided for tanks

1 - DIKING
2 - VAULT
3 - DOUBLE WALL TANK
4 - UNDERGROUND LINER
5 - OTHER
6 - NONE

TANK NUMBER	CONTAINMENT
001	6
002	6
004	1
008	6
009	6

DATE RESULTS RECEIVED
DEFINITION: THE DATE (TIME-STAMPED) THAT ECON RECEIVES A COMPLETED NOTICE FOR TESTING OR RESULTS FROM AN UNSOLICITED TEST FORM A TANK (FACILITY) OWNER.

TANK NUMBER	DATE RESULTS RECEIVED
001, 002, 004, 008, 009	NO DATES LISTED

DISPENSER
DEFINITION: THE DISPENSER METHOD

1 - SUBMERSIBLE
2 - SUCTION
3 - GRAVITY
4 - LOADING RACK

TANK NUMBER	DISPENSER METHOD
001	2
002	2
004	2
008	2
009	2

GAUGE
DEFINITION: PRODUCT GAUGE

0 - NONE
1 - GAUGE

TANK NUMBER	GAUGE
001	1
002	1
004	1
008	1
009	1

INSTALLATION DATE
DEFINITION: THE DATE OF INSTALLATION FOR A GIVEN TANK AT A FACILITY

TANK NUMBER	DATE
001	9/75
002	9/75
004	9/84
008	5/82
009	9/82

LAST TEST DATE:
DEFINITION: DATE THE TEST ON A PETROLEUM TANK IS PERFORMED

TANK NUMBER	LAST TEST DATE
001, 002, 004, 008, 009	NO DATES REPORTED

LEAK DETECTION CODES
DEFINITION: LEAK DETECTION SYSTEM INSTALLED

1 - ELECTRONIC
2 - VAPOR WELL
3 - SAMPLING WELL
4 - IN-TANK SYSTEM
5 - OTHER
6 - NONE

TANK NUMBER	LEAK DETECTION CODE
001, 002, 004, 008, 009	ALL TANKS = 1

LOCATION
DEFINITION: CODE FOR WHERE THE TANK IS LOCATED

1 - UNDERGROUND
2 - UNDERGROUND VAULTED, WITH ACCESS
3 - UNDERGROUND VAULTED, WITH NO ACCESS
4 - ABOVEGROUND
5 - ABOVEGROUND ON CRIB, ETC.
6 - ABOVEGROUND - 10% OR MORE BELOW GROUND

TANK NUMBER	LOCATION
001	1
002	1
004	5
008	5
009	5

NEXT TEST DATE
DEFINITION: THE SYSTEM GENERATED DATE THAT A TEST IS DUE ON A TANK. THIS VALUE IS TAKEN FROM THE TANK FILE FIELD "NEXT TEST DATE"

NOTES:
1. For Underground Storage Tanks (Location 1 or 3), it is a tightness test, per 6YNCRR part 613.5.
2. For aboveground storage tanks (Location 2, 4 or 6) it is an aboveground inspection, per 6NYCRR part 613.6.

TANK NUMBER	NEXT TEST DATE
001	12/87
002	12/87
004	NONE LISTED
008	NONE LISTED
009	NONE LISTED

PBS NUMBER
DEFINITION: THE UNIQUE NUMBER ASSIGNED TO THE FACILITY IN WHICH A TANK IS LOCATED. (THE SIXTH DIGIT IS A CHECK DIGIT.)

PBS # 071404

PIPING TYPE
DEFINITION: PIPING TYPE

1 - STEEL/IRON
2 - GALVANIZED STEEL
3 - WRAPPED STEEL
4 - FIBERGLASS
5 - CATHODICALLY PROTECTED
6 - DOUBLE WALLED
7 - UNKNOWN
8 - COPPER
9 - OTHER

TANK NUMBER	PIPING TYPE
001	2
002	7
004	2
008	1
009	1

PRODUCT
DEFINITION: CODE FOR THE PETROLEUM PRODUCT HELD IN THE TANK

1 - LEADED GASOLINE
2 - UNLEADED GASOLINE
3 - NOS. 1,2 OR 4 FUEL OIL
4 - NOS. 5,6 FUEL OIL
5 - KEROSENE
6 - DIESEL
7 - OTHER

TANK NUMBER	PRODUCT
001	3
002	3
004	2
008	7
009	7

STATUS
DEFINITION: CODE FOR THE CURRENT STATUS OF THE TANK

1 - IN SERVICE
2 - TEMPORARILY OUT OF SERVICE
3 - PERMANENTLY OUT OF SERVICE
4 - ARCHIVED (ALL TANKS CLOSED)
5 - TRANSFERRED

TANK NUMBER	STATUS
001	3
002	3
004	1
008	1
009	1

TANK TYPE
DEFINITION: THE TYPE OF THE TANK INSTALLED

1 - BARE STEEL OR STEEL WITH ASPHALT COATING
2 - STEEL IN VAULT
3 - STEEL WITH INTERIOR EPOXY
4 - STEEL RETROFITTED WITH CATHODIC PROTECTION
5 - STEEL WITH CATHODIC PROTECTION
6 - FIBERGLASS COATED STEEL
7 - FIBERGLASS REINFORCED PLASTIC
8 - DOUBLE WALLED
9 - EQUIVALENT TECHNOLOGY

TANK NUMBER	TANK TYPE
001, 002, 004, 008, 009	ALL TANKS = 1

TEST METHOD
DEFINITION: CODE WHICH IDENTIFIES THE METHOD USED TO TEST A TANK.

00 - UNKNOWN
01 - PETRO-TITE
02 - TANK AUDITOR
03 - HORNER
04 - MOONEY
05 - AINLAY
06 - HUNTER
07 - AGWAY
08 - LIQUID MANAGER
09 - VPLT
10 - AES
11 - LEAK COMPUTER
12 - HTC
99 - OTHER

TANK NUMBER	TEST METHOD
001, 002, 004, 008, 009	NOT LISTED

TEST RESULT
DEFINITION: CODE DESCRIBING THE RESULT OF TEST ON A PARTICULAR TEST SUBJECT

P - PASS
F - FAIL
U - UNABLE TO TEST

TANK NUMBER	TEST RESULT
001, 002, 004, 008, 009	NOT LISTED

TEST RESULT STATUS
DEFINITION: CODE DESCRIBING THE STATUS OF A RESULT OF TEST

0 - NOTICE SENT
1 - MISSING RESULTS (OVERDUE)
2 - PASSING
3 - FAILING
4 - UNABLE TO TEST

TANK NUMBER	TEST RESULT STATUS
001, 002	0
004, 008, 009	NONE LISTED

TEST SUBJECT
DEFINITION: ITEM WHICH IS BEING TESTED. (AT PRESENT TANKS AND PIPING)

TANK NUMBER	TEST SUBJECT
001, 002, 004, 008, 009	NOT LISTED

TREC STATUS
DEFINITION: STATUS OF TANK RECORD

1 - ACTIVE
2 - ACTIVE, MINOR ERRORS
3 - MAJOR ERRORS

TANK NUMBER	TREC STATUS
001, 002, 004, 008, 009	1

SPILL RESPONSE FORM

EGION 8 SPILL NO. 8606899

ALLER'S NAME: NOTIFIER'S NAME:

ALLER'S AGENCY: NOTIFIER'S AGENCY:

AL' S PHONE: AC( ) NOTIFIER'S PHONE: AC( )

PILL DATE: 02/09/87 TIME: 16:00 hrs. ANS SVC DATE: / / TIME: hrs.

ENT OFF DATE: 02/10/87 TIME: 11:30 hrs. FIRST CALL: A, (R), C

EG OFF DATE: 02/09/87 TIME: 16:30 hrs.

Petroleum Spilled			Material Class	
- Gasoline	5 - Diesel	9 - PCB Oil	1 - Petroleum	4 - Raw Sewage
- #2 Fuel	6 - Jet Fuel	10 - Kerosene	(2) - NonPetro/NonHaz	5 - Unknown
- #4 Fuel	7 - Waste Oil	11 - Unknown	3 - Hazardous Material	
- #6 Fuel	(8) - Non-PCB Oil			

ther Material Spilled Transformer oil

uantity Spilled 700 Gallons QTY Recoverd 700 Gallons

s this a SARA Title III/CERCLA Notifcation? ___ Yes ___ No

f Tank Test Failure Tank Size ___ Gal. Test Method ___

Leak Rate ___ gph

SPILL LOCATION	SPILLER (If Different)
LACE: Lapp Insulator, Inc	NAME: Lapp Insulator, Inc
TRF ROAD: Lapp Insulator, Inc	STREET:
UN PALITY: Leroy	CITY/ST/ZIP: Leroy, NY
OUNTY: Genesee	CONTACT PERSON:
ONTACT PERSON:	PHONE: AC( ) 768-6221
HONE: AC( )	

Spill Cause		Spill Source	
- Human Error	7 - Deliberate	(1) - Comm./Indust.	7 - Comm. Vehicle
- Traffic Accident	8 - Aband. Drums	2 - Non Comm/Inst.	8 - Tank Truck
)- Equip. Failure	9 - Tank Failure	3 - Maj Fac 400,00 Gal	9 - Pvt. Dwelling
- Vandalism	10 - Tank Overfill	4 - Non-Maj Fac 1,100 gal	10 - Vessel
- TK Test Fail.	11 - Other	5 - Gas Station	11 - Railroad Car
Bulk Stor. Pro.)	12 - Unknown	6 - Pass. Vehicle	12 - Unknown
- Housekeeping			

Resource Affected		Notifier	
(1) - On Land	4 - Surface Water	(1) - Resp. Party	7 - Citizen
2 - In Sewer	5 - Air	2 - Affect. Pers.	8 - Health Dept.
3 - Groundwater		3 - Police Dept.	9 - Local Agency
		4 - Fire Dept.	10 - Fed. Gov't.
		5 - Tank Tester	11 - Other ___
aterbody ___		6 - DEC	___

EMARKS: 750 gallon elevated tank ruptured spraying oil onto floor in Bushing BLDG. Spiller performed leanup. NO Floor Drains in BLDG.

ERSON CONTACTED ___ ANS SVC OPER ___ CALLER ___ DUTY OFFICER ___

SPILL RESPONSE FORM

REGION 8 SPILL NO 8802823

CALLER'S NAME: Don Fannon NOTIFIER'S NAME:

CALLER'S AGENCY: Citizen NOTIFIER'S AGENCY:

CA 'S PHONE: AC(716) 768-6221 NOTIFIER'S PHONE: AC( )

SPILL DATE: 06/28/88 TIME: 17:59 hrs. ANS SVC DATE: / / TIME: hrs.

CENT OFF DATE: 06/29/88 TIME: 11:43 hrs. FIRST CALL: A, (R), C

REG OFF DATE: 06/28/88 TIME: 18:09 hrs. Regional office received Spill Call first

Petroleum Spilled			Material Class	
1 - Gasoline	5 - Diesel	9 - PCB Oil	1 - Petroleum	4 - Raw Sewage
2 - #2 Fuel	6 - Jet Fuel	10 - Kerosene	2 - NonPetro/NonHaz	5 - Unknown
3 - #4 Fuel	7 - Waste Oil	(11) - Unknown	(3) - Hazardous Material	
4 - #6 Fuel	8 - Non-PCB Oil			

Other Material Spilled Chlorothene VG

Quantity Spilled 55 gallons Ø recovered

Is this a SARA Title III/CERCLA Notifcation? ___ Yes ___ No

If Tank Test Failure Tank Size ___ Gal. Test Method

Leak Rate gph

SPILL LOCATION

PLACE: LAPP Insulator

ST /ROAD: LAPP Insulators

IPALITY: Leroy

NTY: Genesee

CT PERSON:

HONE: AC( )

SPILLER (If Different)

NAME: LAPP Insulator

STREET:

CITY/ST/ZIP: Leroy, NY

CONTACT PERSON:

PHONE: AC(716) 768-6221

Spill Cause		Spill Source	
) - Human Error	7 - Deliberate	(1) - Comm./Indust.	7 - Comm. Vehicle
- Traffic Accident	8 - Aband. Drums	2 - Non Comm/Inst.	8 - Tank Truck
- Equip. Failure	9 - Tank Failure	3 - Maj Fac 400,00 Gal	9 - Pvt. Dwelling
- Vandalism	10 - Tank Overfill	4 - Non-Maj Fac 1,100 gal	10 - Vessel
- TK Test Fail.	11 - Other	5 - Gas Station	11 - Railroad Car
Bulk Stor. Pro.)	12 - Unknown	6 - Pass. Vehicle	12 - Unknown
- Housekeeping			

Resource Affected		Notifier	
(1) - On Land	4 - Surface Water	(1) - Resp. Party	7 - Citizen
2 - In Sewer	5 - Air	2 - Affect. Pers.	8 - Health Dept.
3 - Groundwater		3 - Police Dept.	9 - Local Agency
		4 - Fire Dept.	10 - Fed. Gov't.
		5 - Tank Tester	11 - Other
aterbody		6 - DEC	

EMARKS: Valve on Machinery Mishandled and Caused ill

ERSON CONTACTED ANS SVC OPER CALLER DUTY OFFICER

SPILL RESPONSE FORM

EGION 8 SPILL NO. 8911838

ALLER'S NAME: Floyd Lee NOTIFIER'S NAME:

ALL' S AGENCY: lapp Insulator NOTIFIER'S AGENCY:

AL S PHONE: AC(716)768-6221 NOTIFIER'S PHONE: AC( )

PILL DATE: 03/14/90 TIME: 12:00 hrs. ANS SVC DATE: / / TIME: hrs.

ENT OFF DATE: 03/15/90 TIME: 8:50 hrs. FIRST CALL: A, (R) C

EG OFF DATE: 03/14/90 TIME: 15:25 hrs.

Petroleum Spilled			Material Class	
- Gasoline	5 - Diesel	9 - PCB Oil	(1) - Petroleum	4 - Raw Sewage
- #2 Fuel	6 - Jet Fuel	10 - Kerosene	2 - NonPetro/NonHaz	5 - Unknown
- #4 Fuel	7 - Waste Oil	(11) - Unknown	3 - Hazardous Material	
- #6 Fuel	8 - Non-PCB Oil			

ther Material Spilled

uantity Spilled 5 gallons Ø recovered

s this a SARA Title III/CERCLA Notifcation? ___ Yes ___ No

f Tank Test Failure Tank Size ___ Gal. Test Method

Leak Rate gph

SPILL LOCATION

LACE: lapp Insulator

TR ROAD: lapp Insulator

UNICIPALITY: Leroy

OUNTY: Livingston

ONTACT PERSON:

HONE: AC( )

SPILLER (If Different)

NAME: LAPP Insulator

STREET:

CITY/ST/ZIP: Leroy, NY

CONTACT PERSON: Floyd Lee

PHONE: AC(716)768-6221

Spill Cause		Spill Source	
- Human Error	7 - Deliberate	(1) - Comm./Indust.	7 - Comm. Vehicle
- Traffic Accident	8 - Aband. Drums	2 - Non Comm/Inst.	8 - Tank Truck
)- Equip. Failure	9 - Tank Failure	3 - Maj Fac 400,00 Gal	9 - Pvt. Dwelling
- Vandalism	10 - Tank Overfill	4 - Non-Maj Fac 1,100 gal	10 - Vessel
- TK Test Fail.	11 - Other	5 - Gas Station	11 - Railroad Car
Bulk Stor. Pro.)	12 - Unknown	6 - Pass. Vehicle	12 - Unknown
- Housekeeping			

Resource Affected		Notifier	
1 - On Land	(4) - Surface Water	(1) - Resp. Party	7 - Citizen
2 - In Sewer	5 - Air	2 - Affect. Pers.	8 - Health Dept.
3 - Groundwater		3 - Police Dept.	9 - Local Agency
		4 - Fire Dept.	10 - Fed. Gov't.
		5 - Tank Tester	11 - Other ___
aterbody Oatka Creek		6 - DEC	

EMA S: Approx 5 gal Of oil Spilled out of a Broken l & Flowed into sumped out to Oatka creek

ERSON CONTACTED ___ ANS SVC OPER ___ CALLER ___ DUTY OFFICER ___

SPILL RESPONSE FORM

EGION 8 SPILL NO. 8900075

ALLER'S NAME: Dave White NOTIFIER'S NAME:

ALLER'S AGENCY: LAPP insulator NOTIFIER'S AGENCY:

AI S PHONE: AC(716) 768-6221 NOTIFIER'S PHONE: AC( )

PILL DATE: 04/04/89 TIME: 7:00 hrs. ANS SVC DATE: / / TIME: hrs.

ENT OFF DATE: 04/04/89 TIME: 13:55 hrs. FIRST CALL: A, (R) C

EG OFF DATE: 04/04/89 TIME: 13:00 hrs.

Petroleum Spilled			Material Class	
)- Gasoline	5 - Diesel	9 - PCB Oil	(1)- Petroleum	4 - Raw Sewage
- #2 Fuel	6 - Jet Fuel	10 - Kerosene	2 - NonPetro/NonHaz	5 - Unknown
- #4 Fuel	7 - Waste Oil	11 - Unknown	3 - Hazardous Material	
- #6 Fuel	8 - Non-PCB Oil			

ther Material Spilled Gasoline

uantity Spilled 3 gallons Ø recovered

s this a SARA Title III/CERCLA Notifcation? ___ Yes ___ No

Tank Test Failure Tank Size ___ Gal. Test Method ___

Leak Rate ___ gph

SPILL LOCATION

ACE: Same

RF OAD:

UNICIPALITY:

OUNTY:

NTACT PERSON:

HONE: AC( )

SPILLER (If Different)

NAME: LAPP Insulator

STREET: Gilbert Street

CITY/ST/ZIP: Leroy, NY 14482

CONTACT PERSON: Dave White or Floyd Lee

PHONE: AC(716) 768-6221

Spill Cause			Spill Source	
- Human Error	7 - Deliberate	1 - Comm./Indust.		7 - Comm. Vehicle
- Traffic Accident	8 - Aband. Drums	2 - Non Comm/Inst.		8 - Tank Truck
> Equip. Failure	9 - Tank Failure	3 - Maj Fac 400,00 Gal		9 - Pvt. Dwelling
- Vandalism	10 - Tank Overfill	(4) - Non-Maj Fac 1,100 gal		10 - Vessel
- TK Test Fail.	11 - Other	5 - Gas Station		11 - Railroad Car
ulk Stor. Pro.)	12 - Unknown	6 - Pass. Vehicle		12 - Unknown
- Housekeeping				

Resource Affected		Notifier	
(1) - On Land	4 - Surface Water	(1) - Resp. Party	7 - Citizen
2 - In Sewer	5 - Air	2 - Affect. Pers.	8 - Health Dept.
3 - Groundwater		3 - Police Dept.	9 - Local Agency
		4 - Fire Dept.	10 - Fed. Gov't.
		5 - Tank Tester	11 - Other ___
terbody ___		6 - DEC	___

MARKS: Coupling on aboveground pipe began to weep 2' Side of Containment Area they are use Sorbents.

RSON CONTACTED ___ ANS SVC OPER ___ CALLER ___ DUTY OFFICER ___

SPILL RESPONSE FORM

EGION 8 SPILL NO. 9001351

ALLER'S NAME: Eric Wohlers NOTIFIER'S NAME:

ALLER'S AGENCY: Genesee Co Health Depart. NOTIFIER'S AGENCY:

A S PHONE: AC(716)344-2580 NOTIFIER'S PHONE: AC( )

PILL DATE: 5/30/90 TIME: 12:00 hrs. ANS SV(

ENT OFF DATE: 5/4/90 TIME: 13:19 hrs. FIRST (

EG OFF DATE: 5/3/90 TIME: 13:30 hrs.

SPILL BY CONTRACTOR WORKING ON CLAY STREET BRIDGE, ROUTE # 19 IN THE VILLAGE, AT OATKA CREEK.

LAPP INSULATOR WAS BLAMED FOR THE SPILL.

Petroleum Spilled

- Gasoline
- #2 Fuel
- #4 Fuel
- #6 Fuel
- 5 - Diesel
- 6 - Jet Fuel
- 7 - Waste Oil
- 8 - Non-PCB Oil
- 9 - PCB Oil
- (10) - Kerosene
- (11) - Unknown
- (1) - F
- 2 - N
- 3 - H

her Material Spilled

uantity Spilled 0.00

s this a SARA Title III/CERCLA Notifcation? ____ Yes

f Tank Test Failure Tank Size ____ Gal. T

Leak Rate ____ gph

SPILL LOCATION

LACE: Same as Spiller

TR ROAD:

UNICIPALITY:

OUNTY: Genesee

ONTACT PERSON:

HONE: AC( )

SPILLER (If Different)

NAME: LAPP insulator

STREET: Gilbert St

CITY/ST/ZIP: Leroy, NY

CONTACT PERSON: Floyd Lea

PHONE: AC(716) 768-6221

Spill Cause

- Human Error
- Traffic Accident
- Equip. Failure
- Vandalism
- TK Test Fail.
- Bulk Stor. Pro.)
- Housekeeping
- 7 - Deliberate
- 8 - Aband. Drums
- 9 - Tank Failure
- 10 - Tank Overfill
- 11 - Other
- (12) - Unknown

Spill Source

- (1) - Comm./Indust.
- 2 - Non Comm/Inst.
- 3 - Maj Fac 400,00 Gal
- 4 - Non-Maj Fac 1,100 gal
- 5 - Gas Station
- 6 - Pass. Vehicle
- 7 - Comm. Vehicle
- 8 - Tank Truck
- 9 - Pvt. Dwelling
- 10 - Vessel
- 11 - Railroad Car
- 12 - Unknown

Resource Affected

- 1 - On Land
- 2 - In Sewer
- 3 - Groundwater
- (4) - Surface Water
- 5 - Air

aterbody

Notifier

- 1 - Resp. Party
- 2 - Affect. Pers.
- 3 - Police Dept.
- 4 - Fire Dept.
- 5 - Tank Tester
- 6 - DEC
- 7 - Citizen
- (8) - Health Dept.
- 9 - Local Agency
- 10 - Fed. Gov't.
- 11 - Other ____

EMARKS: Oil in Oatka Creek near main Street

nn

ERSON CONTACTED ____ ANS SVC OPER ____ CALLER ____ DUTY OFFICER ____

Appendix B
Boring Logs, Monitoring Well Construction Detail, and Groundwater Sample Collection Records

Project | Site Lapp Industries | **BORING** MW-1 | Sh 1 of 1

Elev. Feet	Depth Feet	Sample: Type & Number	Sample: Blows per 6 in.	Sample: Depth Range	Sample: Rec.	Graphic Log	Sample Description	Equipment Installed
		S-1	13-11 6-6	0-2	1.5	Fill	Fine to coarse sand with angular coarse gravel and silt, slightly moist, loose to very dense, gray and brown, Porcelain noted	2
5		S-2	4-4 3-3	5-7	0.5	Fill	Same as above, Kiln brick noted	0.5
10		S-3	4-4 4-3	10-12	0.5	Fill	Sand and gravel with clay, Kiln brick and porcelin noted, and (Kiln brick) noted, very moist, moderately dense, gray Drillers noticed change in soil from drilling condition at 13 feet	1
15		S-4	100/4"	15-15.5	0.3		weathered shale, grey, dry (shale to 19') End of Boring at Refusal at ~~15.5~~ 19 feet	17

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Project Lapp Industries Site Leroy NY **BORING** B-1 Sh 1 of 1

Elev. Feet	Depth Feet	Sample: Type & Number	Sample: Blows per 6 in.	Sample: Depth Range	Sample: Rec.	Graphic Log	Sample Description	Equipment Installed
		S-1	4-7 5-4	0-2	1.5		Fine to coarse sand and angular gravel, few clay, moderately dense, moist, grey-brown	0.6
2		S-2	4-3 3-3	2-4	1		Fine sand with angular gravel (shale), moist, moderately dense, grey brown,	0
4		S-3	3-3 2-2	4-6	0.5		Fine to coarse sand and angular gravel, few clay, moderately dense, moist, grey brown	0.2
5 6		S-4	3-3 2-2	6-8	0		No Recovery	—
8		S-5	4-4 3-4	8-10	0.5		Fine gravel with silt, moist, loose, grey brown	0.2
10								

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Project Lapp Industries Site Leroy NY **BORING** B-2 Sh 1 of 1

Elev. Feet	Depth Feet	Sample Type & Number	Sample Blows per 6 In.	Sample Depth Range	Sample Rec.	Graphic Log	Sample Description	Equipment Installed
							~~Boring to begin~~ Split spoons begin at 4'	
4		S-1	46 -44	4-6'	0.5		Fine to coarse sand and gravel, loose, moist grey brown,	12
5		S-2	44 3-4	6-8	0.5		Same as above	1.4
		S-3	6-4 1-1	8-10	0.5		Coarse sand and gravel, few silt, loose, very moist, grey brown	2
10		S-4	1-3 18-25	10-12			Fractured and weathered shale	8
		S-5	100/4"	12-14			Same as above only very dense	8
15							Water at 9.6' from ground surface measured inside of auger flights	

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Project Lapp Ind. Site LeRoy NY **BORING** B-3 Sh 1 of 1

Elev. Feet	Depth Feet	Sample Type & Number	Sample Blows per 6 In.	Sample Depth Range	Sample Rec.	Graphic Log	Sample Description	Equipment Installed
		S-1	12-10 5-7	0-2	1	Fill	Fly Ash, black granular coarse sand size material, dry loose, Porcelain noted	HNU 0
		S-2	8-7 30-29	2-4	0	Fill	No Recovery Difficult Drilling conditions from 2-4'	0
5		S3	1-1 7-9	4-6	0.3	Fill	Clayey white material with Porcelain fragments, very soft, moist,	0
		S-4	2-2 6-7	6-8	0.3	Fill	Same as above	0
10		S-5	6-6 1-1	8-10	0.2	Fill	Same as above	0
		S-6	4-3 4-4	10-12	0.2	Fill	Clay, moderately hard, moist, grey black, Porcelain present	0
		S-7	3-3 6-12	12-14	0.5		Silt, with Clay, hard, slightly moist, dark brown with green, roots present	0
15		S-8	29-100/1"	14-14.8	0.8		Weathered shale, dry, grey	1
							End Boring at refusal of Split spoon at 14.8 feet	

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Project Lapp Industries Site Leroy, NY **BORING B-4** Sh 1 of 1

Elev. Feet	Depth Feet	Sample: Type & Number	Sample: Blows per 6 In.	Sample: Depth Range	Sample: Rec.	Graphic Log	Sample Description	Equipment Installed: HNu (Headspace)
							Split spoon samples begin at 4 feet depth. 0-2 Med angular gravel, (Aggregate) grey.	
		S-1	4 5 4 4	2-4	1.5		2-3.5 Fine gravel, some fine to coarse sand, few silt, moist, loose, grey/tan brown 3.5-4 silt, few fine sand, trace gravel, moderately hard, moist, brown.	7
5		S-2	2-2 3-5	4-6	2		~~Same~~ Clay, some silt, and gravel, moist, soft to moderately hard, brown	0.6
		S-3	3-3 19-10	6-8	0.5		Silt with fine to coarse gravel, slightly moist, hard, brown	0.6
		S-4	25-12 5-5	8-10	0.5		Same as above only very moist to wet	1.2
10		S-5	19 7 23-100	10-12	0.8		10-~~10~~ 10.5 ~~Fine~~ gravel, some fine to coarse sand, ~~wet~~ few silt, wet, loose, brown 11.5-12 grey ~~shale~~ weathered shale	7

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1012(1/81)

Project Lapp Industries Site Leroy NY **BORING B-5** Sh 1 of 1

Elev. Feet	Depth Feet	Sample Type & Number	Sample Blows per 6 In.	Sample Depth Range	Sample Rec.	Graphic Log	Sample Description	Equipment Installed
		S-1	10-7 2-3	0-2	0.5		Coarse sand and fine gravel, some silt, loose, very moist, grey	0.2
		S-2	4-5 4-4	2-4	0.5		Sand and gravel with silt, brown, moderately dense, greyish brown	0.2
5		S-3	4-3 4-4	4-6	1		Clay, some silt, little gravel, wet, soft, brown	0.5
		S-4	4-5 8-19	6-8	1.5		Silt, some clay, few sand and gravel, moist, moderately hard, brown, gasoline odor noted.	190
		S-5	76-100/5"	8-9	0.5		Fine to coarse sand, slightly moist, loose, grey, lense of red clay with gravel noted, also gasoline odor noted	220
10		S-6	28 33 68-100/2	10-12	0.5		same as above with cobbles noted, slight gasoline odor noted.	40
		S-7	39-88 100/4	12-13.5	0.8		weathered shale	80
							End Boring at 13.5 at split spoon refusal.	

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Project Lapp Industrial Site Leroy NY **BORING** B-6 Sh 1 of 1

Elev. Feet	Depth Feet	Sample Type & Number	Sample Blows per 6 In.	Sample Depth Range	Sample Rec.	Graphic Log	Sample Description	Equipment Installed
		S-1	22-25 25-17	0-2	1		Silt, some gravel, slightly moist, moderately hard, brown	2.4
		S-2	12-8 7-8	2-4	1		Clay, some gravel, few silt, moist soft to moderately hard, brown	16
5		S-3	4-4 8-19	4-6	1		Silt, little, Clay and gravel, slisltly moist, moderately hard, brown	3
		S-4	17-17 16-11	6-8	1.0		6-7' same as above 7-8' Med sand, loose, slightly moist, grey, laminations and slight gasoline odor noted.	80
		S-5	8-15 23-29	8-10	1.0		Silt with Clay, some gravel, very most, hard, brown	60
10		S-6	21-26 48-100/4"	10-12	1		10-11 same as above 11-11.8 weathered shale	60
							End boring at refusal at 12'	

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Project Lapp Industries Site Leroy NY **BORING** MW-2 Sh 1 of 1

Elev. Feet	Depth Feet	Sample Type & Number	Sample Blows per 6 in.	Sample Depth Range	Sample Rec.	Graphic Log	Sample Description	Equipment Installed HNU Headspace
		S-1	10-13 13-21	0-2	1		0-1.5 Angular gravel with clay, wet, loose, dark brown 1.5-2 silt, ~~gray~~ moist, moderately hard, ~~mottled~~ light brown and mottled orange.	0.4
5		S-2	7 8 8-10	5-7	2		same subangular to subrounded Silt ~~subangular~~ gravel, moderately hard to hard, slightly moist, brown	0
							8' Drilling changed - Hit rock Drilled in to 10.3'	1.0
10		S-3	3-100/3"	10-10.3	1		End Boring at Auger Refusal at 10.3' No water noted	

1013(1/81)

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Project Lapp Industries Site Leroy NY **BORING** B-7 Sh 1 of 1

Elev. Feet	Depth Feet	Sample Type & Number	Sample Blows per 6 In.	Sample Depth Range	Sample Rec.	Graphic Log	Sample Description	Equipment Installed
							Split spoons start at 4 feet	
5		S-1	20-22 26-29	4-6	1		Silt with gravel and cobbles, dry, dense/hard, light gray-brown, slight ~~gasoline~~ sweet odor	0.8
		S-2	27-23 22-25	6-8	2		Silt, with gravel, some clay, moist, moderately ~~hard~~, dark gray-brown, slight ~~gasoline~~ sweet odor	4
		S-3	8-8 16-28	8-10	2		Silt with gravel, few clay and fine sand, hard, moist, dark greyish brown, slight ~~gasoline~~ sweet odor	0.2
10		S-4	9-10 13-16	10-12	2		same as above ~~Fine sand, little silt and gravel, moist, loose, rubbish gray~~	0.2
		S-5	8-11 17-24	12-14	1		Fine sand little silt and gravel, moist loose, rubbish grey slight ~~gasoline~~ sweet odor	0.2
15		S-6	68-~~100/~~ -100/1"	14-14.6	0		No Recovery	
							End boring at split spoon refusal at 14.6 feet	

1012(1/81)

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Project Lapp Industries Site Leroy NY **BORING** B-8 Sh 1 of 1

Elev. Feet	Depth Feet	Sample Type & Number	Sample Blows per 6 in.	Sample Depth Range	Sample Rec.	Graphic Log	Sample Description	Equipment Installed HNu Headspace
		S-4					Split spoons start at 4 feet	
5		S-1	5-8 15-19	24-6	1		Silt with gravel, & slightly moist, hard, greyish brown.	0.2
		S-2	16-19 22-29	6-8	2		Silt with gravel, few fine to medium sand, hard, greyish brown, slight sweet odor noted	0.2
		S-3	40-42 41-55	8-10	0		No recovery	
10		S-4	8-9 14-18	10-12	2		Fine sand with gravel, few silt, loose, wet, grey, sweet odor noted	0.8
		S-5	12-15 18-26	12-14	2		Silt, with gravel, loose, moist, dark grey, sweet odor noted	0.8
15		S-6	26-40 44-55	14-16	2		Same as above	0.2
		S-7	41 45 53-66	16-18'	1		Same as above	0.2
		S-8	89-100/1"	18-20 18.6	0.5		Same as above only very hard and dry.	1
20							End Boring at split spoon refusal at 18.5'	

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Project Lapp Industries Site Leroy NY **BORING** B-9 Sh 1 of 1

Elev. Feet	Depth Feet	Sample Type & Number	Sample Blows per 6 In.	Sample Depth Range	Sample Rec.	Graphic Log	Sample Description	Equipment Installed
							Split spoon samples ~~at~~ begin at 4'	
5		S-1	6-1 20-1	4-6	0.5		gravel with silt, loos, wet ~~Silt wit~~ dark grey brown	20
		S-2	1-1 2-1	6-8	0		No Recovery, oilly sheen noted on spit spoon	—
10		S-3	1-1 1-1	8-10	0.2		silt and gravel, same as from 4-6, oil noted, sweet odor present	4
		S-4	1-1 1-1	10-12	0.5		~~gra~~ gravel, some silt and sand saturated with greyish black oil with sheen	N Available
		S-5	1-1 12-55	12-13.8	0.5		same as above	18
15							End Boring at split spoon refusal at 13.8'	

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Project Lapp Industries Site Leroy NY **BORING** B-10 Sh 1 of 1

Elev. Feet	Depth Feet	Sample: Type & Number	Sample: Blows per 6 in.	Sample: Depth Range	Sample: Rec.	Graphic Log	Sample Description	Equipment Installed HNU
							~~Sam~~ Split spoons samples begin at 4'	
							Gravel, loose ~~loose~~	
5		S-1		4-6	0		No Recovery loose gravel	
		S-2		6-8	0		No Recovery loose gravel	
		S3		8-10	0		No Recovery, loose gravel, split spoon came up very oilly - similiarly to B-9	
10		S-4		10-12	0		No Recovery - loos gravel	
		S-5		12-14	1.5		12-13' gravel, loose, grey, saturated with oil, 13-14' silt with gravel, ~~brown~~ dry hard, brown	
15							End boring at 14' at ~~where~~ loose gravel and on natural soil begins	

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Project Lapp Industries Site Leroy NY **BORING** MW-3 Sh 1 of 1

Elev. Feet	Depth Feet	Sample: Type & Number	Sample: Blows per 6 in.	Sample: Depth Range	Sample: Rec.	Graphic Log	Sample Description	Equipment Installed
		S-1	6-10 12-21	0-2	1		Silt, sand and gravel mixture, loose, moist, dark grey, porcelain present, & slight oil sheen noted.	
5		S-2	1-1 2-1 7-7 8-9	5-7	1.5		~~Clay, some gravel, few silt, soft, wet, dark greyish brown,~~ Fine to coarse sand and gravel, some silt, loose, moist, dark grey	
10		S-3	1-1 1-1 4-5 9-9	10-12	0.5		~~Fine to coarse sand and gravel, some silt, moist, dark grey.~~ Clay, some gravel, few silt, soft, wet, dark greyish brown.	
15		S-4	9-9 16-24	15-17	1		Silt with very fine sand and gravel, moist, loose - moderately hard, grey reddish grey.	
20		S-5	100/4"	20-20.0	0.5		weathered shale, grey, wet slight sweet odor present. Note: Drilling changed at 18' where shale was most likely encountered. End Boring at Refusal at ~ 19.5 feet	

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C Martin

Project 5780-028 Site LAB INSULATOR **BORING** ~~B-12~~ B-11 (catch) Sh 1 of 1

Elev. Feet	Depth Feet	Sample Type & Number	Blows per 6 in.	Depth Range	Rec.	Graphic Log	Sample Description	Equipment Installed
							(No samples 0-4')	
	5	S-1	14/16/15/6	4-6	0		Sheen on spoon / no sample rec.	
		S-2	18/20/20/38	6-8	6"		gr/br SILT w/ some M-C Sand, gravel (oily odor, traces oil ~~noted~~ on gravel)	
		S-3	12/21/42/28	8-10	18"		br SILT w/ some M-C, Gravel (to 1"ø) (no oil present, no odor, dry)	
	10	S-4	28/21/23/29	10-12	20"		– same –	
		S-5	38/60/100/2	12-13.2	12"		red br SILT w/ some M Gravel, tr C Sand dry	
	15						Bottom of boring @ ~~14'~~ 13.2'	
							No water present	

ERT

1813 (1/81)

C. Martin

Project 5780-028 Site LAPP INSULATOR **BORING** ~~B-13~~ B-12 (Cattle) Sh 1 of 1

Elev. Feet	Depth Feet	Sample Type & Number	Blows per 6 in.	Depth Range	Rec.	Graphic Log	Sample Description	Equipment Installed
							2" asphalt surface	
							(No samples 0 to 4')	
	5	S-1	8/5/9/8	4-6	8"		dk brown SILT w/C Sand, gravel oil sheen noted on gravel	
		S-2	13/13/11/14	6-8	16"		br SILT w/ C Gravel (to 1" ø) for M-C Sand (no vis. oil or odor)	
		S-3	10/9/8/14	8-10	20"		- same - dry, dense, no vis. hydrocarbon	
	10	S-4	14/18/42/81	10-12	20"		- same - some F-M Sand	
		S-5	96/100/1"	12-~~13.5~~	0		no recovery, refusal on spoon	
	15						Bot. of Boring @ ~~14'~~ 12.5'	
							No water encountered	

1812(1/91)

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C Martin

Project | Site

BORING B-13 Sh 1 of 1

Elev. Feet	Depth Feet	Sample: Type & Number	Sample: Blows per 6 In.	Sample: Depth Range	Sample: Rec.	Graphic Log	Sample Description	Equipment Installed
							2" asphalt surface	
							(No samples 0-4')	
	5	S-1	10/14/14/16	4-6	14"		br SILT w/ C Gravel, little sand (tr. odor 4-5', tr. oil sheen on gravel,	
		S-2	15/22/31/42	6-8	18"		- same - moist (no odor)	
		S-3	12/16/19/23	8-10	12"		- same - V. moisture noted on gravel but no oil visible	
	10	S-4	26/38/40/44	10-12	0		- no recovery (spoon blocked by stone)	
		S-5	29/45/72/100/2	12-13.6	14"		br SILT w/ C Gravel, tr. sand (dry)	
	15	~~S-6~~		~~14-16~~			Bott. of Boring @ 13.6'	

1012(11/91)

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C Martin

Project 5760 - 028 Site LAPP - INSULATOR **BORING** B-14 Sh 1 of 1

Elev. Feet	Depth Feet	Sample: Type & Number	Sample: Blows per 6 In.	Sample: Depth Range	Sample: Rec.	Graphic Log	Sample Description	Equipment Installed
							br Sand, gravel FILL	
		S-1	8/9/7/7	2-4	14"		br. SILT w/ C Gravel, some M-C Sand (moist 3-4', tr. oil odor)	
	5	S-2	4/3/2/3	4-6	12"		poor recovery; appears to be SILT w/gravel	
		S-3	2/2/3/2	6-8	14"	7' ▽	soft br. SILT w/ some C Gravel, F sand (vis oil @ 7' on gravel, odor)	
		S-4	3/2/2/2	8-10	4"		poor rec. C Gravel w/ Silt, oil visible in gravel (SAT)	
	10	S-5	2/2/3/2	10-12	5"		gr/black C Gravel (crushed stone) - saturated w/oil, watts	
		S-6A/S-6B	3/100/.4	12-12.5 / 12.5-12.7	18"	12.7	~~br C Gravel, some silt (vis less contaminated)~~ Rec Bottom of boring @ 12.7'	
	15						Water level at completion of boring @ 7' below ground in augers - Appears to be water trapped within former tank excavation limits. No well set.	

ERT

Project No: _____ Client: Lapp Industrie Site: Leroy NY

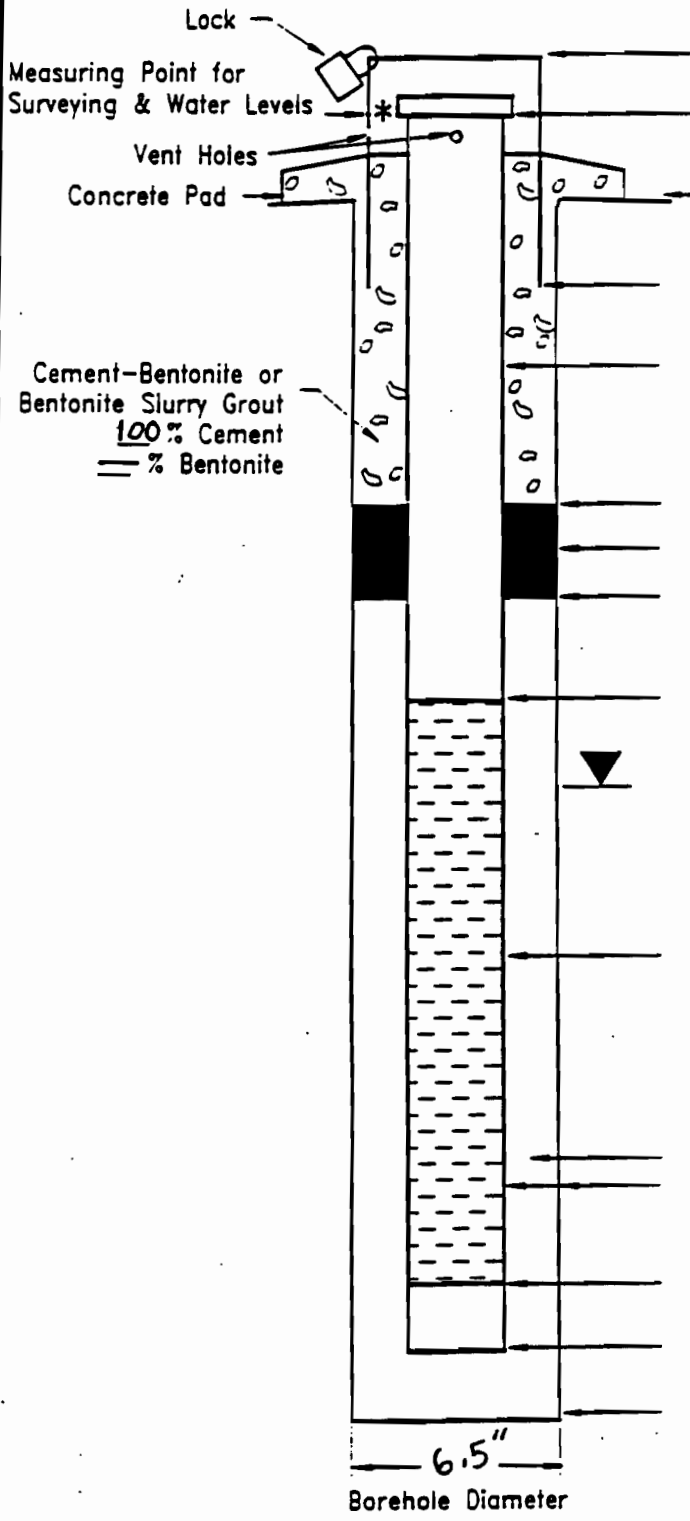
WELL NO: MW-1

Well Location: Behind Building 23 near ~~swamp~~ wetland

Date Installed: 1/7/91

Contractor: Catoh Method: Hollow stem Auger Inspector: Joel Musante

MONITORING WELL CONSTRUCTION DETAIL



		Depth from G.S. (feet)	Elevation (NGVD)
Top of Steel Guard Pipe		1.75	
Top of Riser Pipe		1.5	
Ground Surface (G.S.)		0.00	
Bottom of Steel Guard Pipe		3.25	
Riser Pipe:			
Length	~~7.~~ 10 feet		
Inside Diameter (ID)	2"		
Type of Material	PVC		
Top of Bentonite Seal		~~6~~ 4	
Bentonite Seal Thickness	2		
Top of Sand		~~5.5~~ 6	
Top of Screen		8.5	
Stabilized Water Level		?	
Screen:			
Length	10		
Inside Diameter (ID)	2"		
Slot Size	10		
Type of Material	~~Sand~~ PVC		
Type/Size of Sand			
Sand Pack Thickness	2"		
Bottom of Screen		18.5	
Bottom of Tail Pipe:		18.5	
Length			
Bottom of Borehole		~~18~~ 19	

Approved:

* Describe Measuring Point:

_____ _____ _____

Signature Date

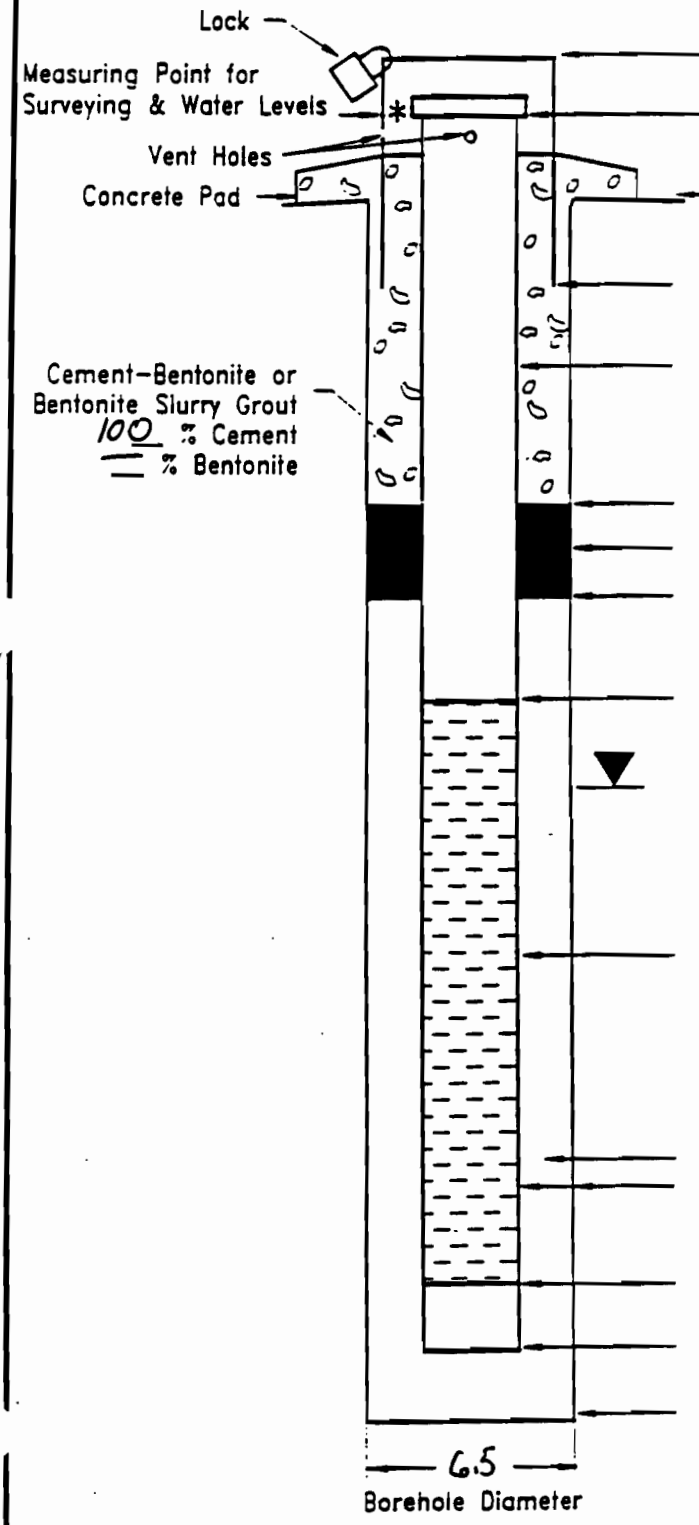
ENSR

Project No: 5750-028 Client: Lapp Industries Site: Leroy NY | WELL No: MW-2

Well Location: On the westside of Building 86, near RR tracks Date Installed: 1/8/92

Contractor: Cgtoh Method: Hollow Stem Auger Inspector: J Musante

MONITORING WELL CONSTRUCTION DETAIL



		Depth from G.S. (feet)	Elevation (NGVD)
Top of Steel Guard Pipe		2.5	
Top of Riser Pipe		1.5	
Ground Surface (G.S.)		0.00	
Bottom of Steel Guard Pipe		2.5	
Riser Pipe:			
Length	5.5		
Inside Diameter (ID)	2"		
Type of Material	PVC		
Top of Bentonite Seal		2	
Bentonite Seal Thickness	2"		
Top of Sand		3	
Top of Screen		4 4 3	
Stabilized Water Level		?	
Screen:			
Length	5 feet		
Inside Diameter (ID)	2"		
Slot Size	#10		
Type of Material	PVC		
Type/Size of Sand	#2		
Sand Pack Thickness	2		
Bottom of Screen		9	
Bottom of Tail Pipe:		9	
Length	0		
Bottom of Borehole		9	

Approved:

* Describe Measuring Point:

Signature Date

ENSR

Project No: 5780-028 Client: Lapp Industries Site: Leroy NY

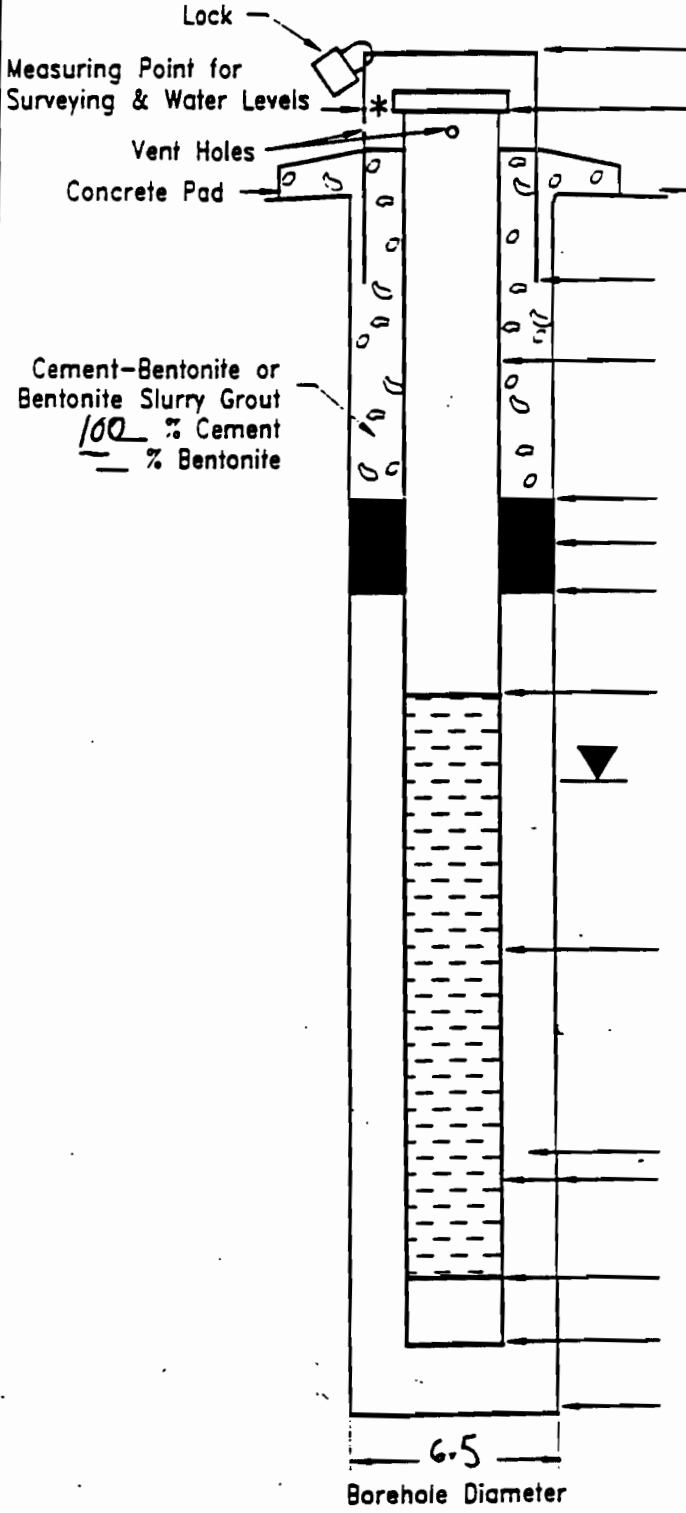
WELL No: MW-3

Well Location: On South west portion of site near Building

Date Installed: 1/9/92

Contractor: Cayuga Method: Hollow Stem Auger Inspector: J Musante

MONITORING WELL CONSTRUCTION DETAIL



		Depth from G.S. (feet)	Elevation (NGVD)
Top of Steel Guard Pipe		0	
Top of Riser Pipe		- 0.25	
Ground Surface (G.S.)		0.00	
Bottom of Steel Guard Pipe		1	
Riser Pipe:			
Length	4.25 feet		
Inside Diameter (ID)	2"		
Type of Material	PVC		
Top of Bentonite Seal		1	
Bentonite Seal Thickness	2"		
Top of Sand		3	
Top of Screen		4.5	
Stabilized Water Level		unknown	
Screen:			
Length	15 feet		
Inside Diameter (ID)	2"		
Slot Size	#10		
Type of Material	PVC		
Type/Size of Sand	#2		
Sand Pack Thickness	2"		
Bottom of Screen		19.5	
Bottom of Tail Pipe:		19.5	
Length	0		
Bottom of Borehole		19.5	

Approved:

* Describe Measuring Point:

Signature Date

ENSR

ENSR

WELL NO. MW-1
East of B-24

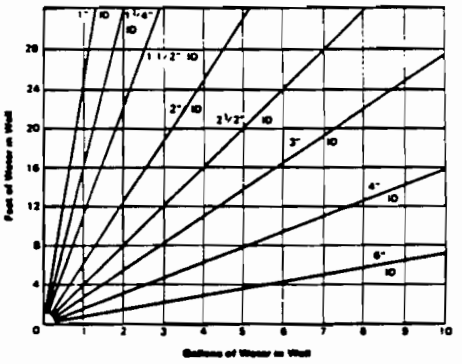
GROUND WATER SAMPLE COLLECTION RECORD

Project No. 5780-028-320 Date 1/13/92 Time: Start 12:15 am/pm

Project Name Lapp Insulator LeRoy NY Finish 4:30 am/pm

Location East of B-24

Weather Conds.: Cloudy - 40's Collector L. McCarthy



1. WATER LEVEL DATA: (measured from ToC)

a. Total Well Length 19.52 Well Casing Type PVC

b. Water Table Depth 16.16 Casing Diameter 2"

c. Length of Water Column 3.36 (a-b)

d. Calculated Purgeable Volume .7

2. WELL PURGEABLE DATA

a. Purge Method bailer

b. Required Purge Volume (@ 3 well volumes) 2.1 gallons

c. Field Testing: Equipment Used YSI Conductivity Meter / Orion pH/Temp Meter

Volume Removed	T°	PH	Spec. Cond.	Color	Other
SAMPLE TAKEN DIRECTLY FROM WELL					
WELL Drilled Tuesday and didn't recharge for +24 hrs.					
None	11.5°C	6.86	1490		

3. SAMPLE COLLECTION: Method Bailer

Container Type	Preservation	Analysis Req.	
2 Glass VOA Vials	—	VOA	
1 Plastic Metal Bottle	HNO_3	P.P. Metals	
1ℓ-1 Glass TPH Bottle	H_2SO_4	TPH	Not Submitted

Comments Didn't develop or purge well

M890244

ENSR

WELL NO. MW-2

GROUND WATER SAMPLE COLLECTION RECORD

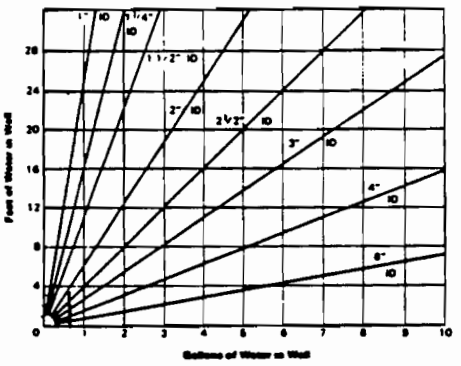
H₂O levels 12:52

Project No. 5780-028-320 Date 1/13/92 Time: Start Purge 1:55 am/pm -2:35 dry

Project Name Lapp Insulator LeRoy NY Finish Sampled 4:05-4:10pm 4:15 am/pm

Location West of B-42 and B-56; North of "Abandoned" Fuel Oil Tanks

Weather Conds.: Cloudy high 30's/40's Collector L. McCarthy



1. **WATER LEVEL DATA: (measured from ToC)**
   - a. Total Well Length 10.45 Well Casing Type PVC
   - b. Water Table Depth 6.98 Casing Diameter 2"
   - c. Length of Water Column 3.47' (a-b)
   - d. Calculated Purgeable Volume .7 gallons

2. **WELL PURGEABLE DATA**
   - a. Purge Method disposable teflon bailer
   - b. Required Purge Volume (@ 3 well volumes) 2.1 gallons
   - c. Field Testing: Equipment Used YSI Conductivity Meter / Orion pH/Temp meter

Volume Removed	T°	PH	Spec. Cond.	Color	Other
.5				clear-slightly silty @ bottom of bai	
1.0	9.4°C	7.17	450	brown v silty	
1.25	9.0°C	7.15	480	brown v silty	
~~2.0~~ 1.5	8.9°C	7.12	485	brown - v v silty	
2.0	9.2°C	7.16	580	brown - v v silty	
2.0 + 2½ bailers	9.3°C	7.21	550	almost muddy	

3. **SAMPLE COLLECTION:** Method Well dry @ 2-2.5 gallons 2:35 pm

Container Type	Preservation	Analysis Req.	
2 Glass VOA vials	—	VOA	
1l-1 Glass TPH	H_2SO_4	~~TPH~~	Insuff sample Not Submitted
1-plastic	HNO_3	Metals	

Comments Well dry @ 2-2.5 gallons @ 2:35 pm
Sampled @ 4:05 pm
Samples increasingly silty VOA clear other - silty
Metals sample to bottom well bailers to get 300 ml - very silty
Insuff sample for TPH

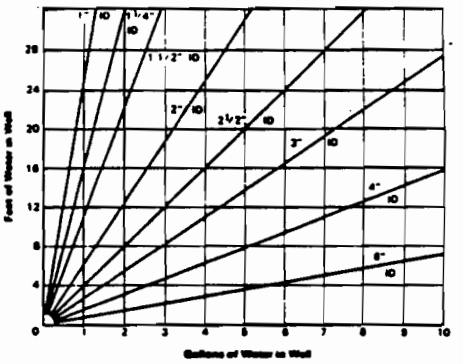
M890244

ENSR

WELL NO. MW-3

GROUND WATER SAMPLE COLLECTION RECORD

Project No. 5780-028-320 Date 1/13/92 Time: Start bailing 2:40 am/pm
Sampled 3:45 pm
Project Name Lapp Insulator LeRoy NY Finish 3:55 am/pm
Location Between B-37 and B-13
Weather Conds.: Overcast high 30's/40's Collector L. McCarthy



1. WATER LEVEL DATA: (measured from ToC)

a. Total Well Length 18.85 Well Casing Type PVC
b. Water Table Depth 2.47 Casing Diameter 2"
c. Length of Water Column 16.38 (a-b)
d. Calculated Purgeable Volume 2.6 gallons

2. WELL PURGEABLE DATA

a. Purge Method disposable teflon bailer
b. Required Purge Volume (@ 3 well volumes) 7.8 gallons
c. Field Testing: Equipment Used VST Conductivity / Orion pH Meter (X Temp)

Volume Removed	T°	PH	Spec. Cond.	Color	Other
2.0 gal.	12.0	7.47	1400	grey[illegible] silty	
4.0 gal	12.0	7.50	1480	V grey[illegible] silty	
6.0 gal	12.2	7.59	1400	V grey - silty	
8.0 gal	12.1	7.60	1350	V grey - silty	
10.0 gal.	11.6	7.61	1300	V grey - silty	
12.0 gal.	10.3	7.61	1050	grey - silty	starting to clear
13.0	9.7	7.54	920	grey - silty	still clearing

3. SAMPLE COLLECTION: Method

Container Type	Preservation	Analysis Req.	
2 Glass - VOA Bottles	—	VOA	
1 Plastic - Metals Bottle	HNO_3	PP Metals	
Not Sampled 1l Glass - TPH	H_2SO_4	~~TPH~~	Not Submitted

Comments No deviations noted

M890244

Appendix C
Laboratory Reports: Soils

Scientific Services Since 1922

ENVIRONMENTAL

CHEMICAL ■ PHYSICAL

ELECTRICAL ■ METALLURGICAL

prepared for

ENSR

WORK ORDER # S201044

TMA
Thermo Analytical Inc.

Skinner & Sherman Laboratories Inc.

300 Second Avenue, P.O. Box 521, Waltham, Massachusetts 02254-0521 (617) 890-7200
1-800-4 LAB TEST FAX (617) 890-3883

Received: 01/10/92 01/16/92 12:57:33

REPORT ENSR
TO 35 Nagog Park
Acton, MA 01720

ATTEN Charles Martin

CLIENT ENSR 02 SAMPLES 22
COMPANY ENSR
FACILITY

PREPARED TMA / Skinner & Sherman Labs.
BY 300 Second Avenue
P.O. Box 521
Waltham, MA 02254

ATTEN Client Services
PHONE (617) 890-7200

Rachel O. Howell
CERTIFIED BY

CONTACT DP

WORK ID LAPP Insulator
TAKEN By Client
TRANS Fed Ex#3019105935
TYPE Waters/Soils
P.O. #
INVOICE under separate cover

SAMPLE IDENTIFICATION

01	TB-1 Trip Blank
02	HB-7/S-1
03	HB-8/S-1
04	HB-9/S-1
05	HB-10/S-1
06	FB-1
07	HB-11/S-1
08	HB-11/S-2
09	HB-12/S-1
10	HB-13/S-1
11	HB-14/S-1
12	HB-14/S-2
13	HB-14/S-3
14	B-7/S-1
15	B-7/S-2
16	B-8/S-1
17	B-9/S-1
18	B-10/S-1
19	B-10/S-2
20	B-6/S-1
21	B-6/S-2
22	B-8/S-2

TEST CODES and NAMES used on this workorder

418 1S	Petroleum Hydrocarbons
418 1W	Petroleum Hydrocarbons-H2O
AG I S	Silver - ICP
AG I W	Silver - ICP
AS G W	Arsenic - Graphite Furn.
AS I S	Arsenic - ICP
BE I S	Beryllium - ICP
BE I W	Beryllium - ICP - Water
CD I S	Cadmium - ICP
CD I W	Cadmium - ICP
CR I S	Chromium - ICP
CR I W	Chromium - ICP
CU I S	Copper - ICP
CU I W	Copper - ICP
GFDI W	Graphite Furnace Digestion
HGDI S	Mercury Prep - Solids
HGDI W	Mercury Prep - Aqueous
HG S	Mercury - Cold Vapor AA
HG W	Mercury - Cold Vapor AA
ICPDIS	Metals Prep ICP - Solids
ICPDIW	Metals Prep ICP - Aqueous
NI I S	Nickel - ICP
NI I W	Nickel - ICP
PB G W	Lead - Graphite Furn.
PB I S	Lead - ICP
SB I S	Antimony - ICP
SB I W	Antimony - ICP
SE G W	Selenium - Graphite Furn.
SE I S	Selenium - ICP - Solids
TL G W	Thallium - Graphite Furn.
TL I S	Thallium - ICP Soil
VOA S	Volatile Organics - Solid
VOA W	Volatile Organics-Aqueous
ZN I S	Zinc - ICP
ZN I W	Zinc - ICP

Received: 01/10/92 Results by Sample

SAMPLE ID TB-1 Trip Blank FRACTION 01A TEST CODE VOA W NAME Volatile Organics-Aqueous
Date & Time Collected 01/09/92 08:30:00 Category WATER

DATE INJECTED 01/13/92 DILUTION FACTOR 1.00
All results reported in micrograms/liter

COMPOUND	RESULT	DET LIMIT	COMPOUND	RESULT	DET LIMIT
Chloromethane	U	10	Bromodichloromethane	U	5.0
Vinyl Chloride	U	10	4-Methyl-2-pentanone	U	10
Bromomethane	U	10	cis-1,3-Dichloropropene	U	5.0
Chloroethane	U	10	Toluene	U	5.0
Trichlorofluoromethane	U	5.0	trans-1,3-Dichloropropene	U	5.0
Acetone	U	10	1,1,2-Trichloroethane	U	5.0
1,1-Dichloroethene	U	5.0	2-Hexanone	U	10
Carbon Disulfide	U	5.0	Tetrachloroethene	U	5.0
Methylene Chloride	U	5.0	Dibromochloromethane	U	5.0
1,2-Dichloroethene (total)	U	5.0	Chlorobenzene	U	5.0
1,1-Dichloroethane	U	5.0	Ethylbenzene	U	5.0
Vinyl Acetate	U	10	m and p-Xylene	U	5.0
2-Butanone	U	10	o-Xylene	U	5.0
Chloroform	U	5.0	Styrene	U	5.0
1,1,1-Trichloroethane	U	5.0	Bromoform	U	5.0
Carbon Tetrachloride	U	5.0	1,1,2,2-Tetrachloroethane	U	5.0
Benzene	U	5.0	1,3-Dichlorobenzene	U	5.0
1,2-Dichloroethane	U	5.0	1,4-Dichlorobenzene	U	5.0
Trichloroethene	U	5.0	1,2-Dichlorobenzene	U	5.0
1,2-Dichloropropane	U	5.0			

NOTES AND DEFINITIONS FOR THIS REPORT
U = not detected at stated detection limit

Skinner & Sherman Laboratories Inc. 300 Second Avenue, P.O. Box 521, Waltham, Massachusetts 02254-0521 (617) 890-7200
1-800-4 LAB TEST FAX (617) 890-3883

Received: 01/10/92 Results by Sample

SAMPLE ID HB-7/S-1 SAMPLE # 02 FRACTIONS: A,B,C

Date & Time Collected 01/08/92 15:00:00 Category SOIL

418_1S 74.6 mg/kg	AG_I_S <2.38 mg/kg	AS_I_S 26.8 mg/kg	BE_I_S <1.19 mg/kg	CD_I_S <1.19 mg/kg	CR_I_S 13.06 mg/kg
CU_I_S 17.6 mg/kg	HG_S <0.11 mg/kg	NI_I_S 12.5 mg/kg	PB_I_S 37.9 mg/kg	SB_I_S <11.9 mg/kg	SE_I_S <11.9 mg/kg
TL_I_S <59.4 mg/kg	ZN_I_S 103 mg/kg				

Skinner & Sherman Laboratories Inc. 300 Second Avenue, P.O. Box 521, Waltham, Massachusetts 02254-0521 (617) 890-7200
1-800-4 LAB TEST FAX (617) 890-3883

Received: 01/10/92 Results by Sample

SAMPLE ID HB-7/S-1 FRACTION 02A TEST CODE VOA S NAME Volatile Organics - Solid

Date & Time Collected 01/08/92 15:00:00 Category SOIL

DATE INJECTED 01/13/92 DATE EXTRACTED NA DILUTION FACTOR 1.30

All results reported in micrograms/kilogram on a dry basis

COMPOUND	RESULT	DET LIMIT	COMPOUND	RESULT	DET LIMIT
Chloromethane	U	13	Bromodichloromethane	U	6.5
Vinyl Chloride	U	13	4-Methyl-2-pentanone	U	13
Bromomethane	U	13	cis-1,3-Dichloropropene	U	6.5
Chloroethane	U	13	Toluene	U	6.5
Trichlorofluoromethane	U	6.5	trans-1,3-Dichloropropene	U	6.5
Acetone	U	13	1,1,2-Trichloroethane	U	6.5
1,1-Dichloroethene	U	6.5	2-Hexanone	U	13
Carbon Disulfide	U	6.5	Tetrachloroethene	U	6.5
Methylene Chloride	U	6.5	Dibromochloromethane	U	6.5
1,2-Dichloroethene (total)	U	6.5	Chlorobenzene	U	6.5
1,1-Dichloroethane	U	6.5	Ethylbenzene	U	6.5
Vinyl Acetate	U	13	m and p-Xylene	U	6.5
2-Butanone	U	13	o-Xylene	U	6.5
Chloroform	U	6.5	Styrene	U	6.5
1,1,1-Trichloroethane	11	6.5	Bromoform	U	6.5
Carbon Tetrachloride	U	6.5	1,1,2,2-Tetrachloroethane	U	6.5
Benzene	U	6.5	1,3-Dichlorobenzene	U	6.5
1,2-Dichloroethane	U	6.5	1,4-Dichlorobenzene	U	6.5
Trichloroethene	U	6.5	1,2-Dichlorobenzene	U	6.5
1,2-Dichloropropane	U	6.5			

NOTES AND DEFINITIONS FOR THIS REPORT

U = not detected at stated detection limit

Skinner & Sherman Laboratories Inc. 300 Second Avenue, P.O. Box 521, Waltham, Massachusetts 02254-0521 (617) 890-7200
1-800-4 LAB TEST FAX (617) 890-3883

SAMPLE ID HB-8/S-1 SAMPLE # 03 FRACTIONS: A,B,C
Date & Time Collected 01/08/92 15:20:00 Category SOIL

418_1S 34.5 mg/kg	AG_I_S <2.54 mg/kg	AS_I_S 66.9 mg/kg	BE_I_S <1.27 mg/kg	CD_I_S <1.27 mg/kg	CR_I_S 18.2 mg/kg
CU_I_S 6.20 mg/kg	HG_S <0.13 mg/kg	NI_I_S 16.0 mg/kg	PB_I_S 39.1 mg/kg	SB_I_S <12.7 mg/kg	SE_I_S <12.7 mg/kg
TL_I_S <63.4 mg/kg	ZN_I_S 45.1 mg/kg				

Skinner & Sherman Laboratories Inc. 300 Second Avenue, P.O. Box 521, Waltham, Massachusetts 02254-0521 (617) 890-7200
1-800-4 LAB TEST FAX (617) 890-3883

Received: 01/10/92 Results by Sample

SAMPLE ID HB-8/S-1 FRACTION 03A TEST CODE VOA S NAME Volatile Organics - Solid

Date & Time Collected 01/08/92 15:20:00 Category SOIL

DATE INJECTED 01/14/92 DATE EXTRACTED NA DILUTION FACTOR 1.30

All results reported in micrograms/kilogram on a dry basis

COMPOUND	RESULT	DET LIMIT	COMPOUND	RESULT	DET LIMIT
Chloromethane	U	13	Bromodichloromethane	U	6.5
Vinyl Chloride	U	13	4-Methyl-2-pentanone	U	13
Bromomethane	U	13	cis-1,3-Dichloropropene	U	6.5
Chloroethane	U	13	Toluene	20	6.5
Trichlorofluoromethane	U	6.5	trans-1,3-Dichloropropene	U	6.5
Acetone	U	13	1,1,2-Trichloroethane	U	6.5
1,1-Dichloroethene	U	6.5	2-Hexanone	U	13
Carbon Disulfide	U	6.5	Tetrachloroethene	U	6.5
Methylene Chloride	U	6.5	Dibromochloromethane	U	6.5
1,2-Dichloroethene (total)	U	6.5	Chlorobenzene	U	6.5
1,1-Dichloroethane	U	6.5	Ethylbenzene	U	6.5
Vinyl Acetate	U	13	m and p-Xylene	9.1	6.5
2-Butanone	U	13	o-Xylene	U	6.5
Chloroform	U	6.5	Styrene	U	6.5
1,1,1-Trichloroethane	17	6.5	Bromoform	U	6.5
Carbon Tetrachloride	U	6.5	1,1,2,2-Tetrachloroethane	U	6.5
Benzene	U	6.5	1,3-Dichlorobenzene	U	6.5
1,2-Dichloroethane	U	6.5	1,4-Dichlorobenzene	U	6.5
Trichloroethene	U	6.5	1,2-Dichlorobenzene	U	6.5
1,2-Dichloropropane	U	6.5			

NOTES AND DEFINITIONS FOR THIS REPORT

U = not detected at stated detection limit

Skinner & Sherman Laboratories Inc. 300 Second Avenue, P.O. Box 521, Waltham, Massachusetts 02254-0521 (617) 890-7200
1-800-4 LAB TEST FAX (617) 890-3883

SAMPLE ID HB-9/S-1 SAMPLE # 04 FRACTIONS: A,B,C
Date & Time Collected 01/08/92 15:40:00 Category SOIL

418_1S 125 mg/kg	AG_I_S <2.81 mg/kg	AS_I_S 20.7 mg/kg	BE_I_S <1.40 mg/kg	CD_I_S <1.40 mg/kg	CR_I_S 21.9 mg/kg
CU_I_S 44.9 mg/kg	HG_S 1.49 mg/kg	NI_I_S 8.51 mg/kg	PB_I_S 45.5 mg/kg	SB_I_S <14.0 mg/kg	SE_I_S <14.0 mg/kg
TL_I_S <70.2 mg/kg	ZN_I_S 95.9 mg/kg				

TMA Thermo Analytical Inc.
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1-800-4 LAB TEST FAX (617) 890-3883

Received: 01/10/92 Results by Sample

SAMPLE ID HB-9/S-1 FRACTION 04A TEST CODE VOA S NAME Volatile Organics - Solid

Date & Time Collected 01/08/92 15:40:00 Category SOIL

DATE INJECTED 01/14/92 DATE EXTRACTED NA DILUTION FACTOR 1.40

All results reported in micrograms/kilogram on a dry basis

COMPOUND	RESULT	DET LIMIT	COMPOUND	RESULT	DET LIMIT
Chloromethane	U	14	Bromodichloromethane	U	7.0
Vinyl Chloride	U	14	4-Methyl-2-pentanone	U	14
Bromomethane	U	14	cis-1,3-Dichloropropene	U	7.0
Chloroethane	U	14	Toluene	17	7.0
Trichlorofluoromethane	U	7.0	trans-1,3-Dichloropropene	U	7.0
Acetone	U	14	1,1,2-Trichloroethane	U	7.0
1,1-Dichloroethene	U	7.0	2-Hexanone	U	14
Carbon Disulfide	U	7.0	Tetrachloroethene	U	7.0
Methylene Chloride	U	7.0	Dibromochloromethane	U	7.0
1,2-Dichloroethene (total)	U	7.0	Chlorobenzene	U	7.0
1,1-Dichloroethane	U	7.0	Ethylbenzene	U	7.0
Vinyl Acetate	U	14	m and p-Xylene	10	7.0
2-Butanone	U	14	o-Xylene	U	7.0
Chloroform	U	7.0	Styrene	U	7.0
1,1,1-Trichloroethane	14	7.0	Bromoform	U	7.0
Carbon Tetrachloride	U	7.0	1,1,2,2-Tetrachloroethane	U	7.0
Benzene	U	7.0	1,3-Dichlorobenzene	U	7.0
1,2-Dichloroethane	U	7.0	1,4-Dichlorobenzene	U	7.0
Trichloroethene	U	7.0	1,2-Dichlorobenzene	U	7.0
1,2-Dichloropropane	U	7.0			

NOTES AND DEFINITIONS FOR THIS REPORT

U = not detected at stated detection limit

Skinner & Sherman Laboratories Inc. 300 Second Avenue, P.O. Box 521, Waltham, Massachusetts 02254-0521 (617) 890-7200
1-800-4 LAB TEST FAX (617) 890-3883

SAMPLE ID HB-10/S-1 SAMPLE # 05 FRACTIONS: A,B,C
Date & Time Collected 01/08/92 16:00:00 Category SOIL

418_1S 4150 mg/kg	AG_I_S <2.35 mg/kg	AS_I_S 17.3 mg/kg	BE_I_S <1.18 mg/kg	CD_I_S <1.18 mg/kg	CR_I_S 11.1 mg/kg
CU_I_S 15.5 mg/kg	HG_S <0.10 mg/kg	NI_I_S 10.9 mg/kg	PB_I_S 13.6 mg/kg	SB_I_S <11.8 mg/kg	SE_I_S <11.8 mg/kg
TL_I_S <58.8 mg/kg	ZN_I_S 67.2 mg/kg				

Skinner & Sherman Laboratories Inc. 300 Second Avenue, P.O. Box 521, Waltham, Massachusetts 02254-0521 (617) 890-7200
1-800-4 LAB TEST FAX (617) 890-3883

SAMPLE ID HB-10/S-1 FRACTION 05A TEST CODE VOA_S NAME Volatile Organics - Solid
Date & Time Collected 01/08/92 16:00:00 Category SOIL

DATE INJECTED 01/14/92 DATE EXTRACTED NA DILUTION FACTOR 1.20
All results reported in micrograms/kilogram on a dry basis

COMPOUND	RESULT	DET LIMIT	COMPOUND	RESULT	DET LIMIT
Chloromethane	U	12	Bromodichloromethane	U	6.0
Vinyl Chloride	U	12	4-Methyl-2-pentanone	U	12
Bromomethane	U	12	cis-1,3-Dichloropropene	U	6.0
Chloroethane	U	12	Toluene	7.5	6.0
Trichlorofluoromethane	U	6.0	trans-1,3-Dichloropropene	U	6.0
Acetone	U	12	1,1,2-Trichloroethane	U	6.0
1,1-Dichloroethene	U	6.0	2-Hexanone	U	12
Carbon Disulfide	U	6.0	Tetrachloroethene	13	6.0
Methylene Chloride	U	6.0	Dibromochloromethane	U	6.0
1,2-Dichloroethene (total)	U	6.0	Chlorobenzene	U	6.0
1,1-Dichloroethane	U	6.0	Ethylbenzene	U	6.0
Vinyl Acetate	U	12	m and p-Xylene	U	6.0
2-Butanone	U	12	o-Xylene	U	6.0
Chloroform	U	6.0	Styrene	U	6.0
1,1,1-Trichloroethane	12	6.0	Bromoform	U	6.0
Carbon Tetrachloride	U	6.0	1,1,2,2-Tetrachloroethane	U	6.0
Benzene	U	6.0	1,3-Dichlorobenzene	U	6.0
1,2-Dichloroethane	U	6.0	1,4-Dichlorobenzene	U	6.0
Trichloroethene	19	6.0	1,2-Dichlorobenzene	U	6.0
1,2-Dichloropropane	U	6.0			

NOTES AND DEFINITIONS FOR THIS REPORT
U = not detected at stated detection limit

Skinner & Sherman Laboratories Inc. 300 Second Avenue, P.O. Box 521, Waltham, Massachusetts 02254-0521 (617) 890-7200
1-800-4 LAB TEST FAX (617) 890-3883

SAMPLE ID FB-1 SAMPLE # 06 FRACTIONS: A,B,C
Date & Time Collected 01/09/92 09:00:00 Category WATER

418_1W <0.50 mg/L	AG_I_W <10 ug/L	AS_G_W <50 ug/L	BE_I_W <5 ug/L	CD_I_W <5 ug/L	CR_I_W <20 ug/L
CU_I_W <10 ug/L	HG_W <0.20 ug/L	NI_I_W <15 ug/L	PB_G_W <50 ug/L	SB_I_W <50 ug/L	SE_G_W <50 ug/L
TL_G_W <250 ug/L	ZN_I_W <20 ug/L				

Skinner & Sherman Laboratories Inc. 300 Second Avenue, P.O. Box 521, Waltham, Massachusetts 02254-0521 (617) 890-7200
1-800-4 LAB TEST FAX (617) 890-3883

Received: 01/10/92 Results by Sample

SAMPLE ID FB-1 FRACTION 06A TEST CODE VOA W NAME Volatile Organics-Aqueous

Date & Time Collected 01/09/92 09:00:00 Category WATER

DATE INJECTED 01/13/92 DILUTION FACTOR 1.00

All results reported in micrograms/liter

COMPOUND	RESULT	DET LIMIT	COMPOUND	RESULT	DET LIMIT
Chloromethane	U	10	Bromodichloromethane	U	5.0
Vinyl Chloride	U	10	4-Methyl-2-pentanone	U	10
Bromomethane	U	10	cis-1,3-Dichloropropene	U	5.0
Chloroethane	U	10	Toluene	U	5.0
Trichlorofluoromethane	U	5.0	trans-1,3-Dichloropropene	U	5.0
Acetone	U	10	1,1,2-Trichloroethane	U	5.0
1,1-Dichloroethene	U	5.0	2-Hexanone	U	10
Carbon Disulfide	U	5.0	Tetrachloroethene	U	5.0
Methylene Chloride	U	5.0	Dibromochloromethane	U	5.0
1,2-Dichloroethene (total)	U	5.0	Chlorobenzene	U	5.0
1,1-Dichloroethane	U	5.0	Ethylbenzene	U	5.0
Vinyl Acetate	U	10	m and p-Xylene	U	5.0
2-Butanone	U	10	o-Xylene	U	5.0
Chloroform	U	5.0	Styrene	U	5.0
1,1,1-Trichloroethane	U	5.0	Bromoform	U	5.0
Carbon Tetrachloride	U	5.0	1,1,2,2-Tetrachloroethane	U	5.0
Benzene	U	5.0	1,3-Dichlorobenzene	U	5.0
1,2-Dichloroethane	U	5.0	1,4-Dichlorobenzene	U	5.0
Trichloroethene	U	5.0	1,2-Dichlorobenzene	U	5.0
1,2-Dichloropropane	U	5.0			

NOTES AND DEFINITIONS FOR THIS REPORT

U = not detected at stated detection limit

Skinner & Sherman Laboratories Inc. 300 Second Avenue, P.O. Box 521, Waltham, Massachusetts 02254-0521 (617) 890-7200
1-800-4 LAB TEST FAX (617) 890-3883

SAMPLE ID HB-11/S-1 SAMPLE # 07 FRACTIONS: A,B,C
Date & Time Collected 01/09/92 09:00:00 Category SOIL

418_1S	21500	AG_I_S	<2.15	AS_I_S	12.1	BE_I_S	<1.08	CD_I_S	<1.08	CR_I_S	5.24
	mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg
CU_I_S	11.2	HG_S	<0.10	NI_I_S	7.84	PB_I_S	<10.8	SB_I_S	<10.8	SE_I_S	<10.8
	mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg
TL_I_S	<53.8	ZN_I_S	57.5								
	mg/kg		mg/kg								

Skinner & Sherman Laboratories Inc. 300 Second Avenue, P.O. Box 521, Waltham, Massachusetts 02254-0521 (617) 890-7200
1-800-4 LAB TEST FAX (617) 890-3883

Received: 01/10/92 Results by Sample

SAMPLE ID HB-11/S-1 FRACTION 07A TEST CODE VOA S NAME Volatile Organics - Solid

Date & Time Collected 01/09/92 09:00:00 Category SOIL

DATE INJECTED 01/13/92 DATE EXTRACTED NA DILUTION FACTOR 2.20

All results reported in micrograms/kilogram on a dry basis

COMPOUND	RESULT	DET LIMIT	COMPOUND	RESULT	DET LIMIT
Chloromethane	U	22	Bromodichloromethane	U	11
Vinyl Chloride	U	22	4-Methyl-2-pentanone	U	22
Bromomethane	U	22	cis-1,3-Dichloropropene	U	11
Chloroethane	U	22	Toluene	U	11
Trichlorofluoromethane	U	11	trans-1,3-Dichloropropene	U	11
Acetone	U	22	1,1,2-Trichloroethane	U	11
1,1-Dichloroethene	U	11	2-Hexanone	U	22
Carbon Disulfide	U	11	Tetrachloroethene	U	11
Methylene Chloride	U	11	Dibromochloromethane	U	11
1,2-Dichloroethene (total)	U	11	Chlorobenzene	U	11
1,1-Dichloroethane	U	11	Ethylbenzene	U	11
Vinyl Acetate	U	22	m and p-Xylene	U	11
2-Butanone	U	22	o-Xylene	U	11
Chloroform	U	11	Styrene	U	11
1,1,1-Trichloroethane	U	11	Bromoform	U	11
Carbon Tetrachloride	U	11	1,1,2,2-Tetrachloroethane	U	11
Benzene	U	11	1,3-Dichlorobenzene	U	11
1,2-Dichloroethane	U	11	1,4-Dichlorobenzene	U	11
Trichloroethene	U	11	1,2-Dichlorobenzene	U	11
1,2-Dichloropropane	U	11			

NOTES AND DEFINITIONS FOR THIS REPORT

U = not detected at stated detection limit

Sample was analyzed at a 2X dilution due to several non-target hydrocarbons present in the sample.

Skinner & Sherman Laboratories Inc. 300 Second Avenue, P.O. Box 521, Waltham, Massachusetts 02254-0521 (617) 890-7200
1-800-4 LAB TEST FAX (617) 890-3883

SAMPLE ID HB-11/S-2 SAMPLE # 08 FRACTIONS: A,B,C
Date & Time Collected 01/09/92 09:10:00 Category SOIL

418_1S 1700 mg/kg	AG_I_S <2.20 mg/kg	AS_I_S 19.3 mg/kg	BE_I_S <1.10 mg/kg	CD_I_S <1.10 mg/kg	CR_I_S 9.74 mg/kg
CU_I_S 15.2 mg/kg	HG_S <0.10 mg/kg	NI_I_S 13.2 mg/kg	PB_I_S <11.0 mg/kg	SB_I_S <11.0 mg/kg	SE_I_S <11.0 mg/kg
TL_I_S <54.9 mg/kg	ZN_I_S 65.9 mg/kg				

TMA Thermo Analytical Inc.
Skinner & Sherman Laboratories Inc. 300 Second Avenue, P.O. Box 521, Waltham, Massachusetts 02254-0521 (617) 890-7200
1-800-4 LAB TEST FAX (617) 890-3883

Received: 01/10/92 Results by Sample

SAMPLE ID HB-11/S-2 FRACTION 08A TEST CODE VOA_S NAME Volatile Organics - Solid
Date & Time Collected 01/09/92 09:10:00 Category SOIL

DATE INJECTED 01/13/92 DATE EXTRACTED NA DILUTION FACTOR 2.20
All results reported in micrograms/kilogram on a dry basis

COMPOUND	RESULT	DET LIMIT	COMPOUND	RESULT	DET LIMIT
Chloromethane	U	22	Bromodichloromethane	U	11
Vinyl Chloride	U	22	4-Methyl-2-pentanone	U	22
Bromomethane	U	22	cis-1,3-Dichloropropene	U	11
Chloroethane	U	22	Toluene	U	11
Trichlorofluoromethane	U	11	trans-1,3-Dichloropropene	U	11
Acetone	U	22	1,1,2-Trichloroethane	U	11
1,1-Dichloroethene	U	11	2-Hexanone	U	22
Carbon Disulfide	U	11	Tetrachloroethene	U	11
Methylene Chloride	U	11	Dibromochloromethane	U	11
1,2-Dichloroethene (total)	U	11	Chlorobenzene	U	11
1,1-Dichloroethane	U	11	Ethylbenzene	U	11
Vinyl Acetate	U	22	m and p-Xylene	U	11
2-Butanone	U	22	o-Xylene	U	11
Chloroform	U	11	Styrene	U	11
1,1,1-Trichloroethane	U	11	Bromoform	U	11
Carbon Tetrachloride	U	11	1,1,2,2-Tetrachloroethane	U	11
Benzene	U	11	1,3-Dichlorobenzene	U	11
1,2-Dichloroethane	U	11	1,4-Dichlorobenzene	U	11
Trichloroethene	U	11	1,2-Dichlorobenzene	U	11
1,2-Dichloropropane	U	11			

NOTES AND DEFINITIONS FOR THIS REPORT
U = not detected at stated detection limit

Sample was analyzed at a 2X dilution due to several non-target hydrocarbons present in the sample.

Skinner & Sherman Laboratories Inc. 300 Second Avenue, P.O. Box 521, Waltham, Massachusetts 02254-0521 (617) 890-7200
1-800-4 LAB TEST FAX (617) 890-3883

SAMPLE ID HB-12/S-1 SAMPLE # 09 FRACTIONS: A,B,C
Date & Time Collected 01/09/92 09:20:00 Category SOIL

418_1S 18700 mg/kg	AG_I_S <2.00 mg/kg	AS_I_S <10.0 mg/kg	BE_I_S <1.00 mg/kg	CD_I_S <1.00 mg/kg	CR_I_S 7.25 mg/kg
CU_I_S 17.1 mg/kg	HG_S <0.10 mg/kg	NI_I_S 7.85 mg/kg	PB_I_S 22.2 mg/kg	SB_I_S <10.0 mg/kg	SE_I_S <10.0 mg/kg
TL_I_S <50.0 mg/kg	ZN_I_S 82.5 mg/kg				

Skinner & Sherman Laboratories Inc. 300 Second Avenue, P.O. Box 521, Waltham, Massachusetts 02254-0521 (617) 890-7200
1-800-4 LAB TEST FAX (617) 890-3883

SAMPLE ID HB-12/S-1 FRACTION 09A TEST CODE VOA S NAME Volatile Organics - Solid
Date & Time Collected 01/09/92 09:20:00 Category SOIL

DATE INJECTED 01/14/92 DATE EXTRACTED NA DILUTION FACTOR 1.10
All results reported in micrograms/kilogram on a dry basis

COMPOUND	RESULT	DET LIMIT	COMPOUND	RESULT	DET LIMIT
Chloromethane	U	11	Bromodichloromethane	U	5.5
Vinyl Chloride	U	11	4-Methyl-2-pentanone	U	11
Bromomethane	U	11	cis-1,3-Dichloropropene	U	5.5
Chloroethane	U	11	Toluene	10	5.5
Trichlorofluoromethane	U	5.5	trans-1,3-Dichloropropene	U	5.5
Acetone	U	11	1,1,2-Trichloroethane	U	5.5
1,1-Dichloroethene	U	5.5	2-Hexanone	U	11
Carbon Disulfide	U	5.5	Tetrachloroethene	U	5.5
Methylene Chloride	U	5.5	Dibromochloromethane	U	5.5
1,2-Dichloroethene (total)	U	5.5	Chlorobenzene	U	5.5
1,1-Dichloroethane	U	5.5	Ethylbenzene	U	5.5
Vinyl Acetate	U	11	m and p-Xylene	6.8	5.5
2-Butanone	U	11	o-Xylene	U	5.5
Chloroform	U	5.5	Styrene	U	5.5
1,1,1-Trichloroethane	13	5.5	Bromoform	U	5.5
Carbon Tetrachloride	U	5.5	1,1,2,2-Tetrachloroethane	U	5.5
Benzene	U	5.5	1,3-Dichlorobenzene	U	5.5
1,2-Dichloroethane	U	5.5	1,4-Dichlorobenzene	U	5.5
Trichloroethene	U	5.5	1,2-Dichlorobenzene	U	5.5
1,2-Dichloropropane	U	5.5			

NOTES AND DEFINITIONS FOR THIS REPORT
U = not detected at stated detection limit

Skinner & Sherman Laboratories Inc. 300 Second Avenue, P.O. Box 521, Waltham, Massachusetts 02254-0521 (617) 890-7200
1-800-4 LAB TEST FAX (617) 890-3883

SAMPLE ID HB-13/S-1 SAMPLE # 10 FRACTIONS: A,B,C
Date & Time Collected 01/09/92 09:40:00 Category SOIL

418_1S 67.8 mg/kg	AG_I_S <1.90 mg/kg	AS_I_S <9.48 mg/kg	BE_I_S <0.95 mg/kg	CD_I_S <0.95 mg/kg	CR_I_S 12.8 mg/kg
CU_I_S 9.23 mg/kg	HG_S <0.10 mg/kg	NI_I_S 7.95 mg/kg	PB_I_S 44.4 mg/kg	SB_I_S <9.47 mg/kg	SE_I_S <9.47 mg/kg
TL_I_S <47.4 mg/kg	ZN_I_S 29.4 mg/kg				

Skinner & Sherman Laboratories Inc. 300 Second Avenue, P.O. Box 521, Waltham, Massachusetts 02254-0521 (617) 890-7200
1-800-4 LAB TEST FAX (617) 890-3883

Received: 01/10/92 Results by Sample

SAMPLE ID HB-13/S-1 FRACTION 10A TEST CODE VOA S NAME Volatile Organics - Solid

Date & Time Collected 01/09/92 09:40:00 Category SOIL

DATE INJECTED 01/14/92 DATE EXTRACTED NA DILUTION FACTOR 1.10

All results reported in micrograms/kilogram on a dry basis

COMPOUND	RESULT	DET LIMIT	COMPOUND	RESULT	DET LIMIT
Chloromethane	U	11	Bromodichloromethane	U	5.5
Vinyl Chloride	U	11	4-Methyl-2-pentanone	U	11
Bromomethane	U	11	cis-1,3-Dichloropropene	U	5.5
Chloroethane	U	11	Toluene	7.7	5.5
Trichlorofluoromethane	U	5.5	trans-1,3-Dichloropropene	U	5.5
Acetone	U	11	1,1,2-Trichloroethane	U	5.5
1,1-Dichloroethene	U	5.5	2-Hexanone	U	11
Carbon Disulfide	U	5.5	Tetrachloroethene	U	5.5
Methylene Chloride	U	5.5	Dibromochloromethane	U	5.5
1,2-Dichloroethene (total)	U	5.5	Chlorobenzene	U	5.5
1,1-Dichloroethane	U	5.5	Ethylbenzene	U	5.5
Vinyl Acetate	U	11	m and p-Xylene	U	5.5
2-Butanone	U	11	o-Xylene	U	5.5
Chloroform	U	5.5	Styrene	U	5.5
1,1,1-Trichloroethane	U	5.5	Bromoform	U	5.5
Carbon Tetrachloride	U	5.5	1,1,2,2-Tetrachloroethane	U	5.5
Benzene	U	5.5	1,3-Dichlorobenzene	U	5.5
1,2-Dichloroethane	U	5.5	1,4-Dichlorobenzene	U	5.5
Trichloroethene	U	5.5	1,2-Dichlorobenzene	U	5.5
1,2-Dichloropropane	U	5.5			

NOTES AND DEFINITIONS FOR THIS REPORT

U = not detected at stated detection limit

Skinner & Sherman Laboratories Inc. 300 Second Avenue, P.O. Box 521, Waltham, Massachusetts 02254-0521 (617) 890-7200
1-800-4 LAB TEST FAX (617) 890-3883

SAMPLE ID HB-14/S-1 SAMPLE # 11 FRACTIONS: A,B,C
Date & Time Collected 01/09/92 11:20:00 Category SOIL

418_1S	13300	AG_I_S	<1.98	AS_I_S	27.4	BE_I_S	<0.99	CD_I_S	<0.99	CR_I_S	14.5
	mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg
CU_I_S	27.6	HG_S	<0.10	NI_I_S	10.6	PB_I_S	46.6	SB_I_S	<9.89	SE_I_S	<9.89
	mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg
TL_I_S	<49.4	ZN_I_S	68.2								
	mg/kg		mg/kg								

Skinner & Sherman Laboratories Inc. 300 Second Avenue, P.O. Box 521, Waltham, Massachusetts 02254-0521 (617) 890-7200
1-800-4 LAB TEST FAX (617) 890-3883

SAMPLE ID HB-14/S-1 FRACTION 11A TEST CODE VOA S NAME Volatile Organics - Solid
Date & Time Collected 01/09/92 11:20:00 Category SOIL

DATE INJECTED 01/14/92 DATE EXTRACTED NA DILUTION FACTOR 2.20
All results reported in micrograms/kilogram on a dry basis

COMPOUND	RESULT	DET LIMIT	COMPOUND	RESULT	DET LIMIT
Chloromethane	U	22	Bromodichloromethane	U	11
Vinyl Chloride	U	22	4-Methyl-2-pentanone	U	22
Bromomethane	U	22	cis-1,3-Dichloropropene	U	11
Chloroethane	U	22	Toluene	U	11
Trichlorofluoromethane	U	11	trans-1,3-Dichloropropene	U	11
Acetone	U	22	1,1,2-Trichloroethane	U	11
1,1-Dichloroethene	U	11	2-Hexanone	U	22
Carbon Disulfide	U	11	Tetrachloroethene	U	11
Methylene Chloride	U	11	Dibromochloromethane	U	11
1,2-Dichloroethene (total)	U	11	Chlorobenzene	U	11
1,1-Dichloroethane	U	11	Ethylbenzene	U	11
Vinyl Acetate	U	22	m and p-Xylene	U	11
2-Butanone	300	22	o-Xylene	U	11
Chloroform	U	11	Styrene	U	11
1,1,1-Trichloroethane	170	11	Bromoform	U	11
Carbon Tetrachloride	U	11	1,1,2,2-Tetrachloroethane	U	11
Benzene	U	11	1,3-Dichlorobenzene	U	11
1,2-Dichloroethane	U	11	1,4-Dichlorobenzene	U	11
Trichloroethene	U	11	1,2-Dichlorobenzene	U	11
1,2-Dichloropropane	U	11			

NOTES AND DEFINITIONS FOR THIS REPORT
U = not detected at stated detection limit

Skinner & Sherman Laboratories Inc. 300 Second Avenue, P.O. Box 521, Waltham, Massachusetts 02254-0521 (617) 890-7200
1-800-4 LAB TEST FAX (617) 890-3883

SAMPLE ID HB-14/S-2 SAMPLE # 12 FRACTIONS: A,B,C
Date & Time Collected 01/09/92 11:30:00 Category SOIL

418_1S 302 mg/kg	AG_I_S <2.10 mg/kg	AS_I_S 19.1 mg/kg	BE_I_S <1.05 mg/kg	CD_I_S <1.05 mg/kg	CR_I_S 7.91 mg/kg
CU_I_S 7.67 mg/kg	HG_S <0.09 mg/kg	NI_I_S 7.31 mg/kg	PB_I_S 49.0 mg/kg	SB_I_S <10.5 mg/kg	SE_I_S <10.5 mg/kg
TL_I_S <52.5 mg/kg	ZN_I_S 40.5 mg/kg				

Skinner & Sherman Laboratories Inc. 300 Second Avenue, P.O. Box 521, Waltham, Massachusetts 02254-0521 (617) 890-7200
1-800-4 LAB TEST FAX (617) 890-3883

SAMPLE ID HB-14/S-2 FRACTION 12A TEST CODE VOA S NAME Volatile Organics - Solid
Date & Time Collected 01/09/92 11:30:00 Category SOIL

DATE INJECTED 01/15/92 DATE EXTRACTED NA DILUTION FACTOR 2.20
All results reported in micrograms/kilogram on a dry basis

COMPOUND	RESULT	DET LIMIT	COMPOUND	RESULT	DET LIMIT
Chloromethane	U	22	Bromodichloromethane	U	11
Vinyl Chloride	U	22	4-Methyl-2-pentanone	U	22
Bromomethane	U	22	cis-1,3-Dichloropropene	U	11
Chloroethane	U	22	Toluene	U	11
Trichlorofluoromethane	U	11	trans-1,3-Dichloropropene	U	11
Acetone	U	22	1,1,2-Trichloroethane	U	11
1,1-Dichloroethene	U	11	2-Hexanone	U	22
Carbon Disulfide	U	11	Tetrachloroethene	U	11
Methylene Chloride	U	11	Dibromochloromethane	U	11
1,2-Dichloroethene (total)	U	11	Chlorobenzene	U	11
1,1-Dichloroethane	U	11	Ethylbenzene	U	11
Vinyl Acetate	U	22	m and p-Xylene	U	11
2-Butanone	1100	55	o-Xylene	U	11
Chloroform	U	11	Styrene	U	11
1,1,1-Trichloroethane	U	11	Bromoform	U	11
Carbon Tetrachloride	U	11	1,1,2,2-Tetrachloroethane	U	11
Benzene	U	11	1,3-Dichlorobenzene	U	11
1,2-Dichloroethane	U	11	1,4-Dichlorobenzene	U	11
Trichloroethene	U	11	1,2-Dichlorobenzene	U	11
1,2-Dichloropropane	U	11			

NOTES AND DEFINITIONS FOR THIS REPORT
U = not detected at stated detection limit

Sample was analyzed at a 2X and 5X dilution for 2-butanone.

Skinner & Sherman Laboratories Inc.
300 Second Avenue, P.O. Box 521, Waltham, Massachusetts 02254-0521 (617) 890-7200
1-800-4 LAB TEST FAX (617) 890-3883

SAMPLE ID HB-14/S-3 SAMPLE # 13 FRACTIONS: A,B,C
Date & Time Collected 01/09/92 11:40:00 Category SOIL

418_1S 68.6 mg/kg	AG_I_S <2.27 mg/kg	AS_I_S 12.5 mg/kg	BE_I_S <1.13 mg/kg	CD_I_S <1.13 mg/kg	CR_I_S 10.9 mg/kg	
CU_I_S 7.48 mg/kg	HG_S <0.10 mg/kg	NI_I_S 8.31 mg/kg	PB_I_S <11.3 mg/kg	SB_I_S <11.3 mg/kg	SE_I_S <11.3 mg/kg	
TL_I_S <56.6 mg/kg	ZN_I_S 38.8 mg/kg					

TMA Thermo Analytical Inc.
Skinner & Sherman Laboratories Inc. 300 Second Avenue, P.O. Box 521, Waltham, Massachusetts 02254-0521 (617) 890-7200
1-800-4 LAB TEST FAX (617) 890-3883

Received: 01/10/92 Results by Sample

SAMPLE ID HB-14/S-3 FRACTION 13A TEST CODE VOA_S NAME Volatile Organics - Solid

Date & Time Collected 01/09/92 11:40:00 Category SOIL

DATE INJECTED 01/14/92 DATE EXTRACTED NA DILUTION FACTOR 1.20

All results reported in micrograms/kilogram on a dry basis

COMPOUND	RESULT	DET LIMIT	COMPOUND	RESULT	DET LIMIT
Chloromethane	U	12	Bromodichloromethane	U	6.0
Vinyl Chloride	U	12	4-Methyl-2-pentanone	U	12
Bromomethane	U	12	cis-1,3-Dichloropropene	U	6.0
Chloroethane	U	12	Toluene	U	6.0
Trichlorofluoromethane	U	6.0	trans-1,3-Dichloropropene	U	6.0
Acetone	U	12	1,1,2-Trichloroethane	U	6.0
1,1-Dichloroethene	U	6.0	2-Hexanone	U	12
Carbon Disulfide	U	6.0	Tetrachloroethene	U	6.0
Methylene Chloride	U	6.0	Dibromochloromethane	U	6.0
1,2-Dichloroethene (total)	U	6.0	Chlorobenzene	U	6.0
1,1-Dichloroethane	U	6.0	Ethylbenzene	U	6.0
Vinyl Acetate	U	12	m and p-Xylene	U	6.0
2-Butanone	U	12	o-Xylene	U	6.0
Chloroform	U	6.0	Styrene	U	6.0
1,1,1-Trichloroethane	U	6.0	Bromoform	U	6.0
Carbon Tetrachloride	U	6.0	1,1,2,2-Tetrachloroethane	U	6.0
Benzene	U	6.0	1,3-Dichlorobenzene	U	6.0
1,2-Dichloroethane	U	6.0	1,4-Dichlorobenzene	U	6.0
Trichloroethene	U	6.0	1,2-Dichlorobenzene	U	6.0
1,2-Dichloropropane	U	6.0			

NOTES AND DEFINITIONS FOR THIS REPORT

U = not detected at stated detection limit

TMA Thermo Analytical Inc.

Skinner & Sherman Laboratories Inc. 300 Second Avenue, P.O. Box 521, Waltham, Massachusetts 02254-0521 (617) 890-7200
1-800-4 LAB TEST FAX (617) 890-3883

SAMPLE ID B-7/S-1 SAMPLE # 14 FRACTIONS: A,B
Date & Time Collected 01/09/92 10:05:00 Category SOIL

418_1S	46.5	mg/kg

TMA
Thermo Analytical Inc.
Skinner & Sherman Laboratories Inc.
300 Second Avenue, P.O. Box 521, Waltham, Massachusetts 02254-0521 (617) 890-7200
1-800-4 LAB TEST FAX (617) 890-3883

SAMPLE ID B-7/S-1 FRACTION 14A TEST CODE VOA S NAME Volatile Organics - Solid
Date & Time Collected 01/09/92 10:05:00 Category SOIL

DATE INJECTED 01/15/92 DATE EXTRACTED NA DILUTION FACTOR 1.10
All results reported in micrograms/kilogram on a dry basis

COMPOUND	RESULT	DET LIMIT	COMPOUND	RESULT	DET LIMIT
Chloromethane	U	11	Bromodichloromethane	U	5.5
Vinyl Chloride	U	11	4-Methyl-2-pentanone	U	11
Bromomethane	U	11	cis-1,3-Dichloropropene	U	5.5
Chloroethane	U	11	Toluene	U	5.5
Trichlorofluoromethane	U	5.5	trans-1,3-Dichloropropene	U	5.5
Acetone	U	11	1,1,2-Trichloroethane	U	5.5
1,1-Dichloroethene	U	5.5	2-Hexanone	U	11
Carbon Disulfide	U	5.5	Tetrachloroethene	U	5.5
Methylene Chloride	U	5.5	Dibromochloromethane	U	5.5
1,2-Dichloroethene (total)	U	5.5	Chlorobenzene	U	5.5
1,1-Dichloroethane	U	5.5	Ethylbenzene	U	5.5
Vinyl Acetate	U	11	m and p-Xylene	U	5.5
2-Butanone	U	11	o-Xylene	U	5.5
Chloroform	U	5.5	Styrene	U	5.5
1,1,1-Trichloroethane	U	5.5	Bromoform	U	5.5
Carbon Tetrachloride	U	5.5	1,1,2,2-Tetrachloroethane	U	5.5
Benzene	U	5.5	1,3-Dichlorobenzene	U	5.5
1,2-Dichloroethane	U	5.5	1,4-Dichlorobenzene	U	5.5
Trichloroethene	U	5.5	1,2-Dichlorobenzene	U	5.5
1,2-Dichloropropane	U	5.5			

NOTES AND DEFINITIONS FOR THIS REPORT
U = not detected at stated detection limit

Skinner & Sherman Laboratories Inc. 300 Second Avenue, P.O. Box 521, Waltham, Massachusetts 02254-0521 (617) 890-7200
1-800-4 LAB TEST FAX (617) 890-3883

SAMPLE ID B-7/S-2 SAMPLE # 15 FRACTIONS: A,B
Date & Time Collected 01/09/92 10:10:00 Category SOIL

418_1S	47.0	
	mg/kg	

Skinner & Sherman Laboratories Inc. 300 Second Avenue, P.O. Box 521, Waltham, Massachusetts 02254-0521 (617) 890-7200
1-800-4 LAB TEST FAX (617) 890-3883

Received: 01/10/92 Results by Sample

SAMPLE ID B-7/S-2 FRACTION 15A TEST CODE VOA S NAME Volatile Organics - Solid

Date & Time Collected 01/09/92 10:10:00 Category SOIL

DATE INJECTED 1/16/92 DATE EXTRACTED NA DILUTION FACTOR 1.10

All results reported in ug/L on a dry basis

COMPOUND	RESULT	DET LIMIT	COMPOUND	RESULT	DET LIMIT
Chloromethane	U	11	Bromodichloromethane	U	5.5
Vinyl Chloride	U	11	4-Methyl-2-pentanone	U	11
Bromomethane	U	11	cis-1,3-Dichloropropene	U	5.5
Chloroethane	U	11	Toluene	U	5.5
Trichlorofluoromethane	U	5.5	trans-1,3-Dichloropropene	U	5.5
Acetone	U	11	1,1,2-Trichloroethane	U	5.5
1,1-Dichloroethene	U	5.5	2-Hexanone	U	11
Carbon Disulfide	U	5.5	Tetrachloroethene	U	5.5
Methylene Chloride	U	5.5	Dibromochloromethane	U	5.5
1,2-Dichloroethene (total)	U	5.5	Chlorobenzene	U	5.5
1,1-Dichloroethane	U	5.5	Ethylbenzene	U	5.5
Vinyl Acetate	U	11	m and p-Xylene	U	5.5
2-Butanone	U	11	o-Xylene	U	5.5
Chloroform	U	5.5	Styrene	U	5.5
1,1,1-Trichloroethane	U	5.5	Bromoform	U	5.5
Carbon Tetrachloride	U	5.5	1,1,2,2-Tetrachloroethane	U	5.5
Benzene	U	5.5	1,3-Dichlorobenzene	U	5.5
1,2-Dichloroethane	U	5.5	1,4-Dichlorobenzene	U	5.5
Trichloroethene	U	5.5	1,2-Dichlorobenzene	U	5.5
1,2-Dichloropropane	U	5.5			

NOTES AND DEFINITIONS FOR THIS REPORT

U = not detected at stated detection limit

Skinner & Sherman Laboratories Inc. 300 Second Avenue, P.O. Box 521, Waltham, Massachusetts 02254-0521 (617) 890-7200
1-800-4 LAB TEST FAX (617) 890-3883

SAMPLE ID B-8/S-1 SAMPLE # 16 FRACTIONS: B
Date & Time Collected 01/09/92 11:18:00 Category SOIL

418_1S 60.0
mg/kg

SAMPLE ID B-9/S-1 SAMPLE # 17 FRACTIONS: A,B
Date & Time Collected 01/09/92 13:15:00 Category SOIL

418_1S 1420
mg/kg

Skinner & Sherman Laboratories Inc.
300 Second Avenue, P.O. Box 521, Waltham, Massachusetts 02254-0521 (617) 890-7200
1-800-4 LAB TEST FAX (617) 890-3883

SAMPLE ID B-9/S-1 FRACTION 17A TEST CODE VOA_S NAME Volatile Organics - Solid
Date & Time Collected 01/09/92 13:15:00 Category SOIL

DATE INJECTED 01/14/92 DATE EXTRACTED NA DILUTION FACTOR 2.20
All results reported in micrograms/kilogram on a dry basis

COMPOUND	RESULT	DET LIMIT	COMPOUND	RESULT	DET LIMIT
Chloromethane	U	22	Bromodichloromethane	U	11
Vinyl Chloride	U	22	4-Methyl-2-pentanone	U	22
Bromomethane	U	22	cis-1,3-Dichloropropene	U	11
Chloroethane	U	22	Toluene	U	11
Trichlorofluoromethane	U	11	trans-1,3-Dichloropropene	U	11
Acetone	U	22	1,1,2-Trichloroethane	U	11
1,1-Dichloroethene	U	11	2-Hexanone	U	22
Carbon Disulfide	U	11	Tetrachloroethene	U	11
Methylene Chloride	U	11	Dibromochloromethane	U	11
1,2-Dichloroethene (total)	U	11	Chlorobenzene	U	11
1,1-Dichloroethane	U	11	Ethylbenzene	140	11
Vinyl Acetate	U	22	m and p-Xylene	420	11
2-Butanone	U	22	o-Xylene	12	11
Chloroform	U	11	Styrene	U	11
1,1,1-Trichloroethane	U	11	Bromoform	U	11
Carbon Tetrachloride	U	11	1,1,2,2-Tetrachloroethane	U	11
Benzene	U	11	1,3-Dichlorobenzene	U	11
1,2-Dichloroethane	U	11	1,4-Dichlorobenzene	U	11
Trichloroethene	U	11	1,2-Dichlorobenzene	U	11
1,2-Dichloropropane	U	11			

NOTES AND DEFINITIONS FOR THIS REPORT
U = not detected at stated detection limit

Sample contains high levels of several non-target hydrocarbons.

Skinner & Sherman Laboratories Inc. 300 Second Avenue, P.O. Box 521, Waltham, Massachusetts 02254-0521 (617) 890-7200
1-800-4 LAB TEST FAX (617) 890-3883

SAMPLE ID B-10/S-1 SAMPLE # 18 FRACTIONS: A,B
Date & Time Collected 01/09/92 14:15:00 Category SOIL

418_1S	2430
	mg/kg

TMA
Thermo Analytical Inc.
Skinner & Sherman Laboratories Inc.
300 Second Avenue, P.O. Box 521, Waltham, Massachusetts 02254-0521 (617) 890-7200
1-800-4 LAB TEST FAX (617) 890-3883

Received: 01/10/92 Results by Sample

SAMPLE ID B-10/S-1 FRACTION 18A TEST CODE VOA_S NAME Volatile Organics - Solid

Date & Time Collected 01/09/92 14:15:00 Category SOIL

DATE INJECTED 01/14/92 DATE EXTRACTED NA DILUTION FACTOR 2.20

All results reported in micrograms/kilogram on a dry basis

COMPOUND	RESULT	DET LIMIT	COMPOUND	RESULT	DET LIMIT
Chloromethane	U	22	Bromodichloromethane	U	11
Vinyl Chloride	U	22	4-Methyl-2-pentanone	U	22
Bromomethane	U	22	cis-1,3-Dichloropropene	U	11
Chloroethane	U	22	Toluene	U	11
Trichlorofluoromethane	U	11	trans-1,3-Dichloropropene	U	11
Acetone	U	22	1,1,2-Trichloroethane	U	11
1,1-Dichloroethene	U	11	2-Hexanone	U	22
Carbon Disulfide	U	11	Tetrachloroethene	U	11
Methylene Chloride	U	11	Dibromochloromethane	U	11
1,2-Dichloroethene (total)	U	11	Chlorobenzene	U	11
1,1-Dichloroethane	U	11	Ethylbenzene	350	11
Vinyl Acetate	U	22	m and p-Xylene	1100	690
2-Butanone	U	22	o-Xylene	U	11
Chloroform	U	11	Styrene	U	11
1,1,1-Trichloroethane	U	11	Bromoform	U	11
Carbon Tetrachloride	U	11	1,1,2,2-Tetrachloroethane	U	11
Benzene	U	11	1,3-Dichlorobenzene	U	11
1,2-Dichloroethane	U	11	1,4-Dichlorobenzene	U	11
Trichloroethene	U	11	1,2-Dichlorobenzene	U	11
1,2-Dichloropropane	U	11			

NOTES AND DEFINITIONS FOR THIS REPORT

U = not detected at stated detection limit

The sample contained high levels of several non-target hydrocarbons.

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1-800-4 LAB TEST FAX (617) 890-3883

SAMPLE ID B-10/S-2 SAMPLE # 19 FRACTIONS: A,B
Date & Time Collected 01/09/92 14:20:00 Category SOIL

418_1S	402	
	mg/kg	

TMA
Thermo Analytical Inc.
Skinner & Sherman Laboratories Inc.
300 Second Avenue, P.O. Box 521, Waltham, Massachusetts 02254-0521 (617) 890-7200
1-800-4 LAB TEST FAX (617) 890-3883

SAMPLE ID B-10/S-2 FRACTION 19A TEST CODE VOA_S NAME Volatile Organics - Solid
Date & Time Collected 01/09/92 14:20:00 Category SOIL

DATE INJECTED 1/15 DATE EXTRACTED NA DILUTION FACTOR 2.20
All results reported in ug/kg on a dry basis

COMPOUND	RESULT	DET LIMIT	COMPOUND	RESULT	DET LIMIT
Chloromethane	U	22	Bromodichloromethane	U	11
Vinyl Chloride	U	22	4-Methyl-2-pentanone	U	22
Bromomethane	U	22	cis-1,3-Dichloropropene	U	11
Chloroethane	U	22	Toluene	U	11
Trichlorofluoromethane	U	11	trans-1,3-Dichloropropene	U	11
Acetone	U	22	1,1,2-Trichloroethane	U	11
1,1-Dichloroethene	U	11	2-Hexanone	U	22
Carbon Disulfide	U	11	Tetrachloroethene	U	11
Methylene Chloride	U	11	Dibromochloromethane	U	11
1,2-Dichloroethene (total)	U	11	Chlorobenzene	U	11
1,1-Dichloroethane	U	11	Ethylbenzene	U	11
Vinyl Acetate	U	22	m and p-Xylene	U	11
2-Butanone	U	22	o-Xylene	U	11
Chloroform	U	11	Styrene	U	11
1,1,1-Trichloroethane	U	11	Bromoform	U	11
Carbon Tetrachloride	U	11	1,1,2,2-Tetrachloroethane	U	11
Benzene	U	11	1,3-Dichlorobenzene	U	11
1,2-Dichloroethane	U	11	1,4-Dichlorobenzene	U	11
Trichloroethene	U	11	1,2-Dichlorobenzene	U	11
1,2-Dichloropropane	U	11			

NOTES AND DEFINITIONS FOR THIS REPORT
U = not detected at stated detection limit

Sample was analyzed at a 2x dilution due to several non-target compounds present in the sample.

Skinner & Sherman Laboratories Inc. 300 Second Avenue, P.O. Box 521, Waltham, Massachusetts 02254-0521 (617) 890-7200
1-800-4 LAB TEST FAX (617) 890-3883

SAMPLE ID B-6/S-1 SAMPLE # 20 FRACTIONS: A,B
Date & Time Collected 01/08/92 14:50:00 Category SOIL

418_1S	32.4	
	mg/kg	

Skinner & Sherman Laboratories Inc. 300 Second Avenue, P.O. Box 521, Waltham, Massachusetts 02254-0521 (617) 890-7200
1-800-4 LAB TEST FAX (617) 890-3883

Received: 01/10/92 Results by Sample

SAMPLE ID B-6/S-1 FRACTION 20A TEST CODE VOA_S NAME Volatile Organics - Solid
Date & Time Collected 01/08/92 14:50:00 Category SOIL

DATE INJECTED 1/15 DATE EXTRACTED NA DILUTION FACTOR 2.20
All results reported in ug/kg on a dry basis

COMPOUND	RESULT	DET LIMIT	COMPOUND	RESULT	DET LIMIT
Chloromethane	U	22	Bromodichloromethane	U	11
Vinyl Chloride	U	22	4-Methyl-2-pentanone	U	22
Bromomethane	U	22	cis-1,3-Dichloropropene	U	11
Chloroethane	U	22	Toluene	U	11
Trichlorofluoromethane	U	11	trans-1,3-Dichloropropene	U	11
Acetone	U	22	1,1,2-Trichloroethane	U	11
1,1-Dichloroethene	U	11	2-Hexanone	U	22
Carbon Disulfide	U	11	Tetrachloroethene	U	11
Methylene Chloride	U	11	Dibromochloromethane	U	11
1,2-Dichloroethene (total)	U	11	Chlorobenzene	U	11
1,1-Dichloroethane	U	11	Ethylbenzene	U	11
Vinyl Acetate	U	22	m and p-Xylene	32	11
2-Butanone	U	22	o-Xylene	23	11
Chloroform	U	11	Styrene	U	11
1,1,1-Trichloroethane	U	11	Bromoform	U	11
Carbon Tetrachloride	U	11	1,1,2,2-Tetrachloroethane	U	11
Benzene	U	11	1,3-Dichlorobenzene	U	11
1,2-Dichloroethane	U	11	1,4-Dichlorobenzene	U	11
Trichloroethene	U	11	1,2-Dichlorobenzene	U	11
1,2-Dichloropropane	U	11			

NOTES AND DEFINITIONS FOR THIS REPORT
U = not detected at stated detection limit

Sample contained high levels of several non-target compounds

Skinner & Sherman Laboratories Inc. 300 Second Avenue, P.O. Box 521, Waltham, Massachusetts 02254-0521 (617) 890-7200
1-800-4 LAB TEST FAX (617) 890-3883

SAMPLE ID B-6/S-2 SAMPLE # 21 FRACTIONS: A,B
Date & Time Collected 01/09/92 14:50:00 Category SOIL

418_1S	476
	mg/kg

TMA
Thermo Analytical Inc.
Skinner & Sherman Laboratories Inc.
300 Second Avenue, P.O. Box 521, Waltham, Massachusetts 02254-0521 (617) 890-7200
1-800-4 LAB TEST FAX (617) 890-3883

SAMPLE ID B-6/S-2 FRACTION 21A TEST CODE VOA S NAME Volatile Organics - Solid
Date & Time Collected 01/09/92 14:50:00 Category SOIL

DATE INJECTED 1/15 DATE EXTRACTED NA DILUTION FACTOR 5.50
All results reported in ug/kg on a dry basis

COMPOUND	RESULT	DET LIMIT	COMPOUND	RESULT	DET LIMIT
Chloromethane	U	55	Bromodichloromethane	U	28
Vinyl Chloride	U	55	4-Methyl-2-pentanone	U	55
Bromomethane	U	55	cis-1,3-Dichloropropene	U	28
Chloroethane	U	55	Toluene	U	28
Trichlorofluoromethane	U	28	trans-1,3-Dichloropropene	U	28
Acetone	U	55	1,1,2-Trichloroethane	U	28
1,1-Dichloroethene	U	28	2-Hexanone	U	55
Carbon Disulfide	U	28	Tetrachloroethene	U	28
Methylene Chloride	U	28	Dibromochloromethane	U	28
1,2-Dichloroethene (total)	U	28	Chlorobenzene	U	28
1,1-Dichloroethane	U	28	Ethylbenzene	U	28
Vinyl Acetate	U	55	m and p-Xylene	U	28
2-Butanone	U	55	o-Xylene	U	28
Chloroform	U	28	Styrene	U	28
1,1,1-Trichloroethane	380	28	Bromoform	U	28
Carbon Tetrachloride	U	28	1,1,2,2-Tetrachloroethane	U	28
Benzene	U	28	1,3-Dichlorobenzene	U	28
1,2-Dichloroethane	U	28	1,4-Dichlorobenzene	U	28
Trichloroethene	7000	690	1,2-Dichlorobenzene	U	28
1,2-Dichloropropane	U	28			

NOTES AND DEFINITIONS FOR THIS REPORT
U = not detected at stated detection limit

Sample was analyzed at a 5x dilution and as a medium level soil for trichloroethene. The results are from each analysis.

Skinner & Sherman Laboratories Inc. 300 Second Avenue, P.O. Box 521, Waltham, Massachusetts 02254-0521 (617) 890-7200
1-800-4 LAB TEST FAX (617) 890-3883

SAMPLE ID B-8/S-2 FRACTION 22A TEST CODE VOA S NAME Volatile Organics - Solid
Date & Time Collected 01/09/92 11:18:00 Category SOIL

DATE INJECTED 01/15/92 DATE EXTRACTED NA DILUTION FACTOR 1.20
All results reported in micrograms/kilogram on a dry basis

COMPOUND	RESULT	DET LIMIT	COMPOUND	RESULT	DET LIMIT
Chloromethane	U	12	Bromodichloromethane	U	6.0
Vinyl Chloride	U	12	4-Methyl-2-pentanone	U	12
Bromomethane	U	12	cis-1,3-Dichloropropene	U	6.0
Chloroethane	U	12	Toluene	U	6.0
Trichlorofluoromethane	U	6.0	trans-1,3-Dichloropropene	U	6.0
Acetone	U	12	1,1,2-Trichloroethane	U	6.0
1,1-Dichloroethene	U	6.0	2-Hexanone	U	12
Carbon Disulfide	U	6.0	Tetrachloroethene	U	6.0
Methylene Chloride	U	6.0	Dibromochloromethane	U	6.0
1,2-Dichloroethene (total)	U	6.0	Chlorobenzene	U	6.0
1,1-Dichloroethane	U	6.0	Ethylbenzene	U	6.0
Vinyl Acetate	U	12	m and p-Xylene	U	6.0
2-Butanone	U	12	o-Xylene	U	6.0
Chloroform	U	6.0	Styrene	U	6.0
1,1,1-Trichloroethane	U	6.0	Bromoform	U	6.0
Carbon Tetrachloride	U	6.0	1,1,2,2-Tetrachloroethane	U	6.0
Benzene	U	6.0	1,3-Dichlorobenzene	U	6.0
1,2-Dichloroethane	U	6.0	1,4-Dichlorobenzene	U	6.0
Trichloroethene	U	6.0	1,2-Dichlorobenzene	U	6.0
1,2-Dichloropropane	U	6.0			

NOTES AND DEFINITIONS FOR THIS REPORT
U = not detected at stated detection limit

Skinner & Sherman Laboratories Inc. 300 Second Avenue, P.O. Box 521, Waltham, Massachusetts 02254-0521 (617) 890-7200
1-800-4 LAB TEST FAX (617) 890-3883

TEST CODE 418_1S NAME Petroleum Hydrocarbons

Petroleum Hydrocarbons in Soil, Total Recoverable
EPA Method 418.1 modified (Spectrophotometric, Infrared)

TEST CODE 418_1W NAME Petroleum Hydrocarbons-H2O

Petroleum Hydrocarbons in Water, Total Recoverable
EPA Method 418.1 (Spectrophotometric, Infrared)

TEST CODE AG_I_S NAME Silver - ICP

SW846 Method 6010 - Inductively Coupled Plasma Spectroscopy (ICP)

TEST CODE AG_I_W NAME Silver - ICP

EPA-600/4-79-020 - Silver - Inductively Coupled Plasma Spectroscopy (ICP)
Method 200.7

TEST CODE AS_G_W NAME Arsenic - Graphite Furn.

EPA-600 4-79-020 Arsenic - (Atomic Absorption, Furnace Technique) Method 206.2

TEST CODE AS_I_S NAME Arsenic - ICP

SW846 Method 6010 - Inductively Coupled Plasma Spectroscopy (ICP)

TEST CODE BE_I_S NAME Beryllium - ICP

SW846 Method 6010 - Inductively Coupled Plasma Spectroscopy (ICP)

TEST CODE BE_I_W NAME Beryllium - ICP - Water

EPA-600/4-79-020 - Beryllium - Inductively Coupled Plasma Spectroscopy (ICP)
Method 200.7

TEST CODE CD_I_S NAME Cadmium - ICP

SW846 Method 6010 - Inductively Coupled Plasma Spectroscopy (ICP)

TEST CODE CD_I_W NAME Cadmium - ICP

EPA-600/4-79-020 - Cadmium - Inductively Coupled Plasma Spectroscopy (ICP)
Method 200.7

Skinner & Sherman Laboratories Inc. 300 Second Avenue, P.O. Box 521, Waltham, Massachusetts 02254-0521 (617) 890-7200
1-800-4 LAB TEST FAX (617) 890-3883

TEST CODE CR_I_S NAME Chromium - ICP

SW846 Method 6010 - Inductively Coupled Plasma Spectroscopy (ICP)

TEST CODE CR_I_W NAME Chromium - ICP

EPA-600/4-79-020 - Chromium - Inductively Coupled Plasma Spectroscopy (ICP)
Method 200.7

TEST CODE CU_I_S NAME Copper - ICP

SW846 Method 6010 - Inductively Coupled Plasma Spectroscopy (ICP)

TEST CODE CU_I_W NAME Copper - ICP

EPA-600/4-79-020 - Copper - Inductively Coupled Plasma Spectroscopy (ICP)
Method 200.7

TEST CODE GFDI_W NAME Graphite Furnace Digestion

SW846 Method 3020 - Acid digestion of aqueous samples and extracts for analysis for total metals by graphite furnace atomic absorption spectroscopy

TEST CODE HGDI_S NAME Mercury Prep - Solids

Solid samples are prepared for mercury analysis in accordance with SW846 Method 7471.

TEST CODE HGDI_W NAME Mercury Prep - Aqueous

SW846 Method 7470 preparation of water for mercury analysis.

TEST CODE HG_S NAME Mercury - Cold Vapor AA

Solid samples are analyzed for mercury using the cold vapor technique in accordance with SW846 Method 7471. Percent solids determined and results reported on a dry weight basis.

TEST CODE HG_W NAME Mercury - Cold Vapor AA

EPA 600/4-79-020 - Mercury - Automated Cold-Vapor Technique Method 245.1

TEST CODE ICPDIS NAME Metals Prep ICP - Solids

SW846 Method 3050 - "Acid Digestion of Sediments, Sludges and Soils" for total metals for analysis by Flame Atomic Absorption Spectroscopy or Inductively Coupled Plasma Spectroscopy. Percent solids determined and results reported on a dry weight basis.

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TEST CODE ICPDIW NAME Metals Prep ICP - Aqueous

SW846 Method 3010 - Acid digestion of aqueous samples and extracts for total metals for analysis by Flame Atomic Absorption Spectroscopy or Inductively Coupled Plasma Spectroscopy

TEST CODE NI I S NAME Nickel - ICP

SW846 Method 6010 - Inductively Coupled Plasma Spectroscopy (ICP)

TEST CODE NI I W NAME Nickel - ICP

EPA-600/4-79-020 - Nickel - Inductively Coupled Plasma Spectroscopy (ICP) Method 200.7

TEST CODE PB G W NAME Lead - Graphite Furn.

EPA-600 4-79-020 - Lead - Atomic Absorption, Furnace Technique Method 239.2

TEST CODE PB I S NAME Lead - ICP

SW846 Method 6010 - Inductively Coupled Plasma Spectroscopy (ICP)

TEST CODE SB I S NAME Antimony - ICP

SW846 Method 6010 - Inductively Coupled Plasma Spectroscopy (ICP)

TEST CODE SB I W NAME Antimony - ICP

EPA-600/4-79-020 - Antimony - Inductively Coupled Plasma Spectroscopy (ICP) Method 200.7

TEST CODE SE G W NAME Selenium - Graphite Furn.

EPA-600 4-79-020 -Selenium - Atomic Absorption, Furnace Technique Method 270.2

TEST CODE SE I S NAME Selenium - ICP - Solids

SW846 Method 6010 - Inductively Coupled Plasma Spectroscopy (ICP)

TEST CODE TL G W NAME Thallium - Graphite Furn.

EPA-600 4-79-020 -Thallium - Atomic Absorption, Furnace Technique Method 279.2

TEST CODE TL I S NAME Thallium - ICP Soil

SW846 Method 6010 - Inductively Coupled Plasma Spectroscopy (ICP).

Skinner & Sherman Laboratories Inc. 300 Second Avenue, P.O. Box 521, Waltham, Massachusetts 02254-0521 (617) 890-7200
1-800-4 LAB TEST FAX (617) 890-3883

TEST CODE VOA S NAME Volatile Organics - Solid

Volatile Organics in Solid - Hazardous Substance List

SW846 Method 8240 - Modified

"Test Methods for Evaluating Solid Waste", SW-846, US EPA, Office of Solid Waste and Emergency Response, Washington; 3rd Edition.

The solid samples were prepared by Method 5030 and analyzed by Gas Chromatography/Mass Spectroscopy using a modified Method 8240 for determination of Volatile Organic pollutants by the purge and trap technique.

Quality assurance procedures for GCMS include daily tuning and calibration of the mass spectrometer and the use of surrogate standards in each sample to monitor method performance. Quantitation is performed by the internal standard method. Analysis of blanks, duplicate samples and standards are run frequently as further quality assurance procedures.

TEST CODE VOA W NAME Volatile Organics-Aqueous

Volatile Organics in Water - Hazardous Substance List

SW846 Method 8240 - Modified

"Test Methods for Evaluating Solid Waste", SW-846, US EPA, Office of Solid Waste and Emergency Response, Washington; 3rd Edition.

Aqueous samples are analyzed in accordance with Method 8240 using a purge and trap technique followed by Gas Chromatography/Mass Spectroscopy.

Quality assurance procedures for GCMS include daily tuning and calibration of the mass spectrometer and the use of surrogate standards in each sample to monitor method performance. Quantitation is performed by the internal standard method. Analysis of blanks, duplicate samples and standards are run frequently as further quality assurance procedures.

TEST CODE ZN I S NAME Zinc - ICP

SW846 Method 6010 - Inductively Coupled Plasma Spectroscopy (ICP)

TEST CODE ZN I W NAME Zinc - ICP

EPA-600/4-79-020 - Zinc - Inductively Coupled Plasma Spectroscopy (ICP)
Method 200.7

Skinner & Sherman Laboratories Inc. 300 Second Avenue, P.O. Box 521, Waltham, Massachusetts 02254-0521 (617) 890-7200
1-800-4 LAB TEST FAX (617) 890-3883

TM
Thermo Analytical Inc.

Skinner And Sherman Laboratories
300 Second Avenue
Post Office Box 521
Waltham, MA 02254-0521
(617) 890-7200

DATE 1/8/92 PAGE 1 OF 2

CLIENT LAPP INSULATOR
ADDRESS 130 GILBERT ST.
LEROY, NY
PROJECT NO. 578-028-320
PROJECT NAME
SAMPLERS (SIGNATURE) Barbara S Martin

SAMPLE NO.	DATE	TIME	COMP.	GRAB	LOCATION	Parameters: Volatiles (8240)	TPH	PP Metals	Other: Iced	Filtered	Preservative	Sample Type	NUMBER OF CONTAINERS	Observations/ Comments
TB-1	1/9/92	0830		✓	trip blank	✓						WATER	2	
HB-7/S-1	1/8/92	1500	✓		SLF	✓	✓	✓				SOIL	3	
HB-8/S-1	"	1520	✓		SLF	✓	✓	✓				↓	3	
HB-9/S-1	"	1540	✓		SLF	✓	✓	✓					3	
HB-10/S-1	"	1600	✓		SLF	✓	✓	✓					3	
FB-1	1/9/92	0900		✓	Field blank	✓	✓	✓				WATER	4	
HB-11/S-1	"	0900	✓		DR 0-6"	✓	✓	✓				SOIL	3	
HB-11/S-2	"	0910	✓		DR 6"-1'	✓	✓	✓					3	
HB-12/S-1	"	0920	✓		DR 0-6"	✓	✓	✓					3	
HB-13/S-1	"	0940	✓		DR 0-6"	✓	✓	✓					3	
HB-14/S-1	"	1120	✓		DD 0-0.4'	✓	✓	✓					3	
HB-14/S-2	"	1130		✓	DD 0.5-1'	✓	✓	✓					3	
HB-14/S-3	"	1140		✓	DD 1.0-2.2'	✓	✓	✓					3	

RELINQUISHED BY	DATE	RECEIVED BY	DATE	RELINQUISHED BY	DATE	RECEIVED BY	DATE	TOTAL NUMBER OF CONTAINERS
Signature: Barbara S Martin	1/9/92	Signature: Barbara Proulx	1/10/92	Signature		Signature		39
Printed Name: MARTIN	TIME	Printed Name: Barbara Proulx	TIME	Printed Name	TIME	Printed Name	TIME	METHOD OF SHIPMENT: Fed Ex
Company: ENSR	1500	Company: TMA Skinner/Sherman	10:15	Company		Company		SPECIAL SHIPMENT/HANDLING OR STORAGE REQUIREMENTS
RELINQUISHED BY	DATE	RECEIVED BY	DATE	RELINQUISHED BY	DATE	RECEIVED BY (Laboratory)	DATE	
Signature		Signature		Signature		Signature		
Printed Name	TIME	Printed Name	TIME	Printed Name	TIME	Printed Name: Skinner & Sherman Labs	TIME	
Company		Company		Company				

Therm[illegible]lytical Inc.

300 Second Avenue
Post Office Box 521
Waltham, MA 02254-0521
(617) 890-7200

DATE 1/9/92 PAGE 2 of 3

CLIENT Lapp Industries
ADDRESS 130 Gilbert Street
Leroy NY
PROJECT NO. 5780-028
PROJECT NAME Lapp Industries
SAMPLERS (SIGNATURE) [signature]

SAMPLE NO.	DATE	TIME	COMP.	GRAB	LOCATION	Parameters: VOC 8240	Parameters: TPH	Other: Iced	Other: Filtered	Other: Preservative	Sample Type	NUMBER OF CONTAINERS	Observations/ Comments
B-7/S													
B-7/S-1	1/9/92	10:05	✓	✓	B-7	X	X				SOIL	2	
B-7/S-2		10:10	✓		B-7	X	X					2	
B-8/S-1		11:18	✓		B-8	X	X					1	
B-9/S-1		13:15	✓		B-9	X	X					2	
B-10/S-1		14:15	✓		B-10	X	X					2	
B-10/S-2		1420	✓		B-10	X	X					2	
B-6/S-1	1/10/92	1450	✓		B-6	X	X					2	
B-6/S-2	"	1450	✓		B-6	X	X					2	
B-8/S-2	1/9/92	1118	✓		B-8	X						1	

RELINQUISHED BY	DATE	RECEIVED BY	DATE	RELINQUISHED BY	DATE	RECEIVED BY	DATE
Signature [signature]	1/9/92	Barbara Prunier	1/10/92	Signature		Signature	
Printed Name CHARLES MARSTON	TIME 1500	Printed Name Barb Paoli x.	TIME 10:15	Printed Name	TIME	Printed Name	TIME
Company ENSR		Company Skinner / Sherman		Company		Company	
RELINQUISHED BY	DATE	RECEIVED BY	DATE	RELINQUISHED BY	DATE	RECEIVED BY (Laboratory)	DATE
Signature		Signature		Signature		Signature	
Printed Name	TIME	Printed Name	TIME	Printed Name	TIME	Printed Name Skinner & Sherman Labs	TIME
Company		Company		Company			

16 TOTAL NUMBER OF CONTAINERS

METHOD OF SHIPMENT
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ENSR

WORK ORDER #S201030

TMA
Thermo Analytical Inc.

Skinner & Sherman Laboratories Inc.

300 Second Avenue, P.O. Box 521, Waltham, Massachusetts 02254-0521 (617) 890-7200
1-800-4 LAB TEST FAX (617) 890-3883

Received: 01/09/92 01/14/92 16:38:04

REPORT ENSR
TO 35 Nagog Park
Acton, MA 01720

ATTEN Charles Martin

CLIENT ENSR 02 SAMPLES 18
COMPANY ENSR
FACILITY

PREPARED TMA / Skinner & Sherman Labs.
BY 300 Second Avenue
P.O. Box 521
Waltham, MA 02254

ATTEN Client Services
PHONE (617) 890-7200

CERTIFIED BY

CONTACT DP

WORK ID LAPP Industries
TAKEN By Client
TRANS Fed Ex# 3019105924
TYPE Soil
P.O. #
INVOICE under separate cover

SAMPLE IDENTIFICATION		TEST CODES and NAMES used on this workorder	
01	MW-1/S-1	418 1S	Petroleum Hydrocarbons
02	MW-1/S-2	AG I S	Silver - ICP
03	B-1/S-1	AS I S	Arsenic - ICP
04	B-2/S-1	BE I S	Beryllium - ICP
05	B-2/S-2	CD I S	Cadmium - ICP
06	B-3/S-1	CR I S	Chromium - ICP
07	B-4/S-1	CU I S	Copper - ICP
08	B-4/S-2	HGDI S	Mercury Prep - Solids
09	B-5/S-1	HG S	Mercury - Cold Vapor AA
10	B-5/S-2	ICPDIS	Metals Prep ICP - Solids
11	HB-1/S-1	NI I S	Nickel - ICP
12	HB-2/S-1	PB I S	Lead - ICP
13	HB-3/S-1	SB I S	Antimony - ICP
14	HB-3A/S-2	SE I S	Selenium - ICP - Solids
15	HB-4/S-1	TL I S	Thallium - ICP Soil
16	HB-5/S-1	VOA S	Volatile Organics - Solid
17	HB-6/S-1	ZN I S	Zinc - ICP
18	HB-5/S-2		

Skinner & Sherman Laboratories Inc.
300 Second Avenue, P.O. Box 521, Waltham, Massachusetts 02254-0521 (617) 890-7200
1-800-4 LAB TEST FAX (617) 890-3883

SAMPLE ID MW-1/S-1 SAMPLE # 01 FRACTIONS: A,B,C
Date & Time Collected 01/07/92 11:30:00 Category SOIL

418_1S 219 mg/kg	AG_I_S <2.28 mg/kg	AS_I_S 12.5 mg/kg	BE_I_S <1.14 mg/kg	CD_I_S <1.14 mg/kg	CR_I_S 9.75 mg/kg
CU_I_S 48.3 mg/kg	HG_S 0.84 mg/kg	NI_I_S 10.8 mg/kg	PB_I_S 23.1 mg/kg	SB_I_S <11.4 mg/kg	SE_I_S <11.4 mg/kg
TL_I_S <57.0 mg/kg	ZN_I_S 418 mg/kg				

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1-800-4 LAB TEST FAX (617) 890-3883

Received: 01/09/92 Results by Sample

SAMPLE ID MW-1/S-1 FRACTION 01C TEST CODE VOA_S NAME Volatile Organics - Solid

Date & Time Collected 01/07/92 11:30:00 Category SOIL

DATE INJECTED 01/09/92 DATE EXTRACTED NA DILUTION FACTOR 1.20

All results reported in micrograms/kilogram on a dry basis

COMPOUND	RESULT	DET LIMIT	COMPOUND	RESULT	DET LIMIT
Chloromethane	U	12	Bromodichloromethane	U	6.0
Vinyl Chloride	U	12	4-Methyl-2-pentanone	U	12
Bromomethane	U	12	cis-1,3-Dichloropropene	U	6.0
Chloroethane	U	12	Toluene	U	6.0
Trichlorofluoromethane	U	6.0	trans-1,3-Dichloropropene	U	6.0
Acetone	U	12	1,1,2-Trichloroethane	U	6.0
1,1-Dichloroethene	U	6.0	2-Hexanone	U	12
Carbon Disulfide	U	6.0	Tetrachloroethene	U	6.0
Methylene Chloride	U	6.0	Dibromochloromethane	U	6.0
1,2-Dichloroethene (total)	U	6.0	Chlorobenzene	U	6.0
1,1-Dichloroethane	U	6.0	Ethylbenzene	U	6.0
Vinyl Acetate	U	12	m and p-Xylene	U	6.0
2-Butanone	U	12	o-Xylene	U	6.0
Chloroform	U	6.0	Styrene	U	6.0
1,1,1-Trichloroethane	73	6.0	Bromoform	U	6.0
Carbon Tetrachloride	U	6.0	1,1,2,2-Tetrachloroethane	U	6.0
Benzene	U	6.0	1,3-Dichlorobenzene	U	6.0
1,2-Dichloroethane	U	6.0	1,4-Dichlorobenzene	U	6.0
Trichloroethene	U	6.0	1,2-Dichlorobenzene	U	6.0
1,2-Dichloropropane	U	6.0			

NOTES AND DEFINITIONS FOR THIS REPORT

U = not detected at stated detection limit

Skinner & Sherman Laboratories Inc. 300 Second Avenue, P.O. Box 521, Waltham, Massachusetts 02254-0521 (617) 890-7200
1-800-4 LAB TEST FAX (617) 890-3883

SAMPLE ID MW-1/S-2 FRACTION 02A TEST CODE VOA S NAME Volatile Organics - Solid
Date & Time Collected 01/07/92 11:45:00 Category SOIL

DATE INJECTED 01/09/92 DATE EXTRACTED NA DILUTION FACTOR 1.10
All results reported in micrograms/kilogram on a dry basis

COMPOUND	RESULT	DET LIMIT	COMPOUND	RESULT	DET LIMIT
Chloromethane	U	11	Bromodichloromethane	U	5.5
Vinyl Chloride	U	11	4-Methyl-2-pentanone	U	11
Bromomethane	U	11	cis-1,3-Dichloropropene	U	5.5
Chloroethane	U	11	Toluene	U	5.5
Trichlorofluoromethane	U	5.5	trans-1,3-Dichloropropene	U	5.5
Acetone	U	11	1,1,2-Trichloroethane	U	5.5
1,1-Dichloroethene	22	5.5	2-Hexanone	U	11
Carbon Disulfide	U	5.5	Tetrachloroethene	U	5.5
Methylene Chloride	U	5.5	Dibromochloromethane	U	5.5
1,2-Dichloroethene (total)	U	5.5	Chlorobenzene	U	5.5
1,1-Dichloroethane	49	5.5	Ethylbenzene	U	5.5
Vinyl Acetate	U	11	m and p-Xylene	U	5.5
2-Butanone	U	11	o-Xylene	U	5.5
Chloroform	U	5.5	Styrene	U	5.5
1,1,1-Trichloroethane	310	28	Bromoform	U	5.5
Carbon Tetrachloride	U	5.5	1,1,2,2-Tetrachloroethane	U	5.5
Benzene	U	5.5	1,3-Dichlorobenzene	U	5.5
1,2-Dichloroethane	U	5.5	1,4-Dichlorobenzene	U	5.5
Trichloroethene	25	5.5	1,2-Dichlorobenzene	U	5.5
1,2-Dichloropropane	U	5.5			

NOTES AND DEFINITIONS FOR THIS REPORT
U = not detected at stated detection limit

Sample was analyzed undiluted and at a 5X dilution for
1,1,1-trichloroethane.
Results are from each analysis.

Skinner & Sherman Laboratories Inc. 300 Second Avenue, P.O. Box 521, Waltham, Massachusetts 02254-0521 (617) 890-7200
1-800-4 LAB TEST FAX (617) 890-3883

SAMPLE ID B-1/S-1 SAMPLE # 03 FRACTIONS: A,B
Date & Time Collected 01/07/92 14:45:00 Category SOIL

418_1S	71.5
	mg/kg

Skinner & Sherman Laboratories Inc. 300 Second Avenue, P.O. Box 521, Waltham, Massachusetts 02254-0521 (617) 890-7200
1-800-4 LAB TEST FAX (617) 890-3883

SAMPLE ID B-1/S-1 FRACTION 03B TEST CODE VOA S NAME Volatile Organics - Solid
Date & Time Collected 01/07/92 14:45:00 Category SOIL

DATE INJECTED 01/09/92 DATE EXTRACTED NA DILUTION FACTOR 1.10
All results reported in micrograms/kilogram on a dry basis

COMPOUND	RESULT	DET LIMIT	COMPOUND	RESULT	DET LIMIT
Chloromethane	U	11	Bromodichloromethane	U	5.5
Vinyl Chloride	U	11	4-Methyl-2-pentanone	U	11
Bromomethane	U	11	cis-1,3-Dichloropropene	U	5.5
Chloroethane	U	11	Toluene	U	5.5
Trichlorofluoromethane	U	5.5	trans-1,3-Dichloropropene	U	5.5
Acetone	U	11	1,1,2-Trichloroethane	U	5.5
1,1-Dichloroethene	U	5.5	2-Hexanone	U	11
Carbon Disulfide	U	5.5	Tetrachloroethene	18	5.5
Methylene Chloride	U	5.5	Dibromochloromethane	U	5.5
1,2-Dichloroethene (total)	U	5.5	Chlorobenzene	U	5.5
1,1-Dichloroethane	U	5.5	Ethylbenzene	U	5.5
Vinyl Acetate	U	11	m and p-Xylene	U	5.5
2-Butanone	U	11	o-Xylene	U	5.5
Chloroform	U	5.5	Styrene	U	5.5
1,1,1-Trichloroethane	210	5.5	Bromoform	U	5.5
Carbon Tetrachloride	U	5.5	1,1,2,2-Tetrachloroethane	U	5.5
Benzene	U	5.5	1,3-Dichlorobenzene	U	5.5
1,2-Dichloroethane	U	5.5	1,4-Dichlorobenzene	U	5.5
Trichloroethene	U	5.5	1,2-Dichlorobenzene	U	5.5
1,2-Dichloropropane	U	5.5			

NOTES AND DEFINITIONS FOR THIS REPORT
U = not detected at stated detection limit

Skinner & Sherman Laboratories Inc. 300 Second Avenue, P.O. Box 521, Waltham, Massachusetts 02254-0521 (617) 890-7200
1-800-4 LAB TEST FAX (617) 890-3883

SAMPLE ID B-2/S-1 SAMPLE # 04 FRACTIONS: A,B
Date & Time Collected 01/07/92 16:10:00 Category SOIL

418_1S	113
	mg/kg

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1-800-4 LAB TEST FAX (617) 890-3883

Received: 01/09/92 Results by Sample

SAMPLE ID B-2/S-1 FRACTION 04B TEST CODE VOA_S NAME Volatile Organics - Solid

Date & Time Collected 01/07/92 16:10:00 Category SOIL

DATE INJECTED 01/09/92 DATE EXTRACTED NA DILUTION FACTOR 1.00

All results reported in micrograms/kilogram on a dry basis

COMPOUND	RESULT	DET LIMIT	COMPOUND	RESULT	DET LIMIT
Chloromethane	U	10	Bromodichloromethane	U	5.0
Vinyl Chloride	U	10	4-Methyl-2-pentanone	U	10
Bromomethane	U	10	cis-1,3-Dichloropropene	U	5.0
Chloroethane	U	10	Toluene	U	5.0
Trichlorofluoromethane	U	5.0	trans-1,3-Dichloropropene	U	5.0
Acetone	U	10	1,1,2-Trichloroethane	U	5.0
1,1-Dichloroethene	U	5.0	2-Hexanone	U	10
Carbon Disulfide	U	5.0	Tetrachloroethene	U	5.0
Methylene Chloride	U	5.0	Dibromochloromethane	U	5.0
1,2-Dichloroethene (total)	U	5.0	Chlorobenzene	U	5.0
1,1-Dichloroethane	U	5.0	Ethylbenzene	U	5.0
Vinyl Acetate	U	10	m and p-Xylene	U	5.0
2-Butanone	U	10	o-Xylene	U	5.0
Chloroform	U	5.0	Styrene	U	5.0
1,1,1-Trichloroethane	170	5.0	Bromoform	U	5.0
Carbon Tetrachloride	U	5.0	1,1,2,2-Tetrachloroethane	U	5.0
Benzene	U	5.0	1,3-Dichlorobenzene	U	5.0
1,2-Dichloroethane	U	5.0	1,4-Dichlorobenzene	U	5.0
Trichloroethene	U	5.0	1,2-Dichlorobenzene	U	5.0
1,2-Dichloropropane	U	5.0			

NOTES AND DEFINITIONS FOR THIS REPORT

U = not detected at stated detection limit

Skinner & Sherman Laboratories Inc. 300 Second Avenue, P.O. Box 521, Waltham, Massachusetts 02254-0521 (617) 890-7200
1-800-4 LAB TEST FAX (617) 890-3883

SAMPLE ID B-2/S-2 SAMPLE # 05 FRACTIONS: A,B
Date & Time Collected 01/07/92 16:15:00 Category SOIL

418_1S 212
mg/kg

Skinner & Sherman Laboratories Inc. 300 Second Avenue, P.O. Box 521, Waltham, Massachusetts 02254-0521 (617) 890-7200
1-800-4 LAB TEST FAX (617) 890-3883

Received: 01/09/92 Results by Sample

SAMPLE ID B-2/S-2 FRACTION 05B TEST CODE VOA S NAME Volatile Organics - Solid
Date & Time Collected 01/07/92 16:15:00 Category SOIL

DATE INJECTED 01/11/92 DATE EXTRACTED NA DILUTION FACTOR 1.20
All results reported in micrograms/kilogram on a dry basis

COMPOUND	RESULT	DET LIMIT	COMPOUND	RESULT	DET LIMIT
Chloromethane	U	12	Bromodichloromethane	U	6.0
Vinyl Chloride	U	12	4-Methyl-2-pentanone	U	12
Bromomethane	U	12	cis-1,3-Dichloropropene	U	6.0
Chloroethane	U	12	Toluene	U	6.0
Trichlorofluoromethane	U	6.0	trans-1,3-Dichloropropene	U	6.0
Acetone	U	12	1,1,2-Trichloroethane	U	6.0
1,1-Dichloroethene	U	6.0	2-Hexanone	U	12
Carbon Disulfide	U	6.0	Tetrachloroethene	U	6.0
Methylene Chloride	U	6.0	Dibromochloromethane	U	6.0
1,2-Dichloroethene (total)	11	6.0	Chlorobenzene	U	6.0
1,1-Dichloroethane	U	6.0	Ethylbenzene	U	6.0
Vinyl Acetate	U	12	m and p-Xylene	U	6.0
2-Butanone	U	12	o-Xylene	U	6.0
Chloroform	U	6.0	Styrene	U	6.0
1,1,1-Trichloroethane	86	12	Bromoform	U	6.0
Carbon Tetrachloride	U	6.0	1,1,2,2-Tetrachloroethane	U	6.0
Benzene	U	6.0	1,3-Dichlorobenzene	U	6.0
1,2-Dichloroethane	U	6.0	1,4-Dichlorobenzene	U	6.0
Trichloroethene	170	12	1,2-Dichlorobenzene	U	6.0
1,2-Dichloropropane	U	6.0			

NOTES AND DEFINITIONS FOR THIS REPORT
U = not detected at stated detection limit

Sample was analyzed undiluted and diluted 5X.
Results are from each analysis.

Skinner & Sherman Laboratories Inc. 300 Second Avenue, P.O. Box 521, Waltham, Massachusetts 02254-0521 (617) 890-7200
1-800-4 LAB TEST FAX (617) 890-3883

SAMPLE ID B-3/S-1 SAMPLE # 06 FRACTIONS: A,B,C
Date & Time Collected 01/08/92 09:15:00 Category SOIL

418_1S 67.5 mg/kg	AG_I_S <2.35 mg/kg	AS_I_S 12.9 mg/kg	BE_I_S <1.18 mg/kg	CD_I_S <1.18 mg/kg	CR_I_S 10.4 mg/kg
CU_I_S 18.8 mg/kg	HG_S <0.10 mg/kg	NI_I_S 9.68 mg/kg	PB_I_S 25.1 mg/kg	SB_I_S <11.8 mg/kg	SE_I_S <11.8 mg/kg
TL_I_S <58.8 mg/kg	ZN_I_S 69.2 mg/kg				

Skinner & Sherman Laboratories Inc. 300 Second Avenue, P.O. Box 521, Waltham, Massachusetts 02254-0521 (617) 890-7200
1-800-4 LAB TEST FAX (617) 890-3883

SAMPLE ID B-3/S-1 FRACTION 06C TEST CODE VOA S NAME Volatile Organics - Solid
Date & Time Collected 01/08/92 09:15:00 Category SOIL

DATE INJECTED 01/10/92 DATE EXTRACTED NA DILUTION FACTOR 1.30
All results reported in micrograms/kilogram on a dry basis

COMPOUND	RESULT	DET LIMIT	COMPOUND	RESULT	DET LIMIT
Chloromethane	U	13	Bromodichloromethane	U	6.5
Vinyl Chloride	U	13	4-Methyl-2-pentanone	U	13
Bromomethane	U	13	cis-1,3-Dichloropropene	U	6.5
Chloroethane	U	13	Toluene	U	6.5
Trichlorofluoromethane	U	6.5	trans-1,3-Dichloropropene	U	6.5
Acetone	U	13	1,1,2-Trichloroethane	U	6.5
1,1-Dichloroethene	U	6.5	2-Hexanone	U	13
Carbon Disulfide	U	6.5	Tetrachloroethene	U	6.5
Methylene Chloride	U	6.5	Dibromochloromethane	U	6.5
1,2-Dichloroethene (total)	U	6.5	Chlorobenzene	U	6.5
1,1-Dichloroethane	U	6.5	Ethylbenzene	U	6.5
Vinyl Acetate	U	13	m and p-Xylene	U	6.5
2-Butanone	U	13	o-Xylene	U	6.5
Chloroform	30	6.5	Styrene	U	6.5
1,1,1-Trichloroethane	U	6.5	Bromoform	U	6.5
Carbon Tetrachloride	U	6.5	1,1,2,2-Tetrachloroethane	U	6.5
Benzene	U	6.5	1,3-Dichlorobenzene	U	6.5
1,2-Dichloroethane	U	6.5	1,4-Dichlorobenzene	U	6.5
Trichloroethene	U	6.5	1,2-Dichlorobenzene	U	6.5
1,2-Dichloropropane	U	6.5			

NOTES AND DEFINITIONS FOR THIS REPORT
U = not detected at stated detection limit

Skinner & Sherman Laboratories Inc.
300 Second Avenue, P.O. Box 521, Waltham, Massachusetts 02254-0521 (617) 890-7200
1-800-4 LAB TEST FAX (617) 890-3883

SAMPLE ID B-4/S-1 SAMPLE # 07 FRACTIONS: A,B,C
Date & Time Collected 01/08/92 11:20:00 Category SOIL

418_1S	189	AG_I_S	<2.27	AS_I_S	<11.3	BE_I_S	<1.14	CD_I_S	<1.14	CR_I_S	10.3
	mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg
CU_I_S	33.8	HG_S	<0.11	NI_I_S	12.9	PB_I_S	<11.3	SB_I_S	<11.3	SE_I_S	<11.3
	mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg
TL_I_S	<56.7	ZN_I_S	48.2								
	mg/kg		mg/kg								

Skinner & Sherman Laboratories Inc.
300 Second Avenue, P.O. Box 521, Waltham, Massachusetts 02254-0521 (617) 890-7200
1-800-4 LAB TEST FAX (617) 890-3883

Received: 01/09/92 Results by Sample

SAMPLE ID B-4/S-1 FRACTION 07C TEST CODE VOA_S NAME Volatile Organics - Solid

Date & Time Collected 01/08/92 11:20:00 Category SOIL

DATE INJECTED 01/09/92 DATE EXTRACTED NA DILUTION FACTOR 1.10

All results reported in micrograms/kilogram on a dry basis

COMPOUND	RESULT	DET LIMIT	COMPOUND	RESULT	DET LIMIT
Chloromethane	U	11	Bromodichloromethane	U	5.5
Vinyl Chloride	U	11	4-Methyl-2-pentanone	U	11
Bromomethane	U	11	cis-1,3-Dichloropropene	U	5.5
Chloroethane	U	11	Toluene	U	5.5
Trichlorofluoromethane	U	5.5	trans-1,3-Dichloropropene	U	5.5
Acetone	U	11	1,1,2-Trichloroethane	24	5.5
1,1-Dichloroethene	250	28	2-Hexanone	U	11
Carbon Disulfide	U	5.5	Tetrachloroethene	24	5.5
Methylene Chloride	U	5.5	Dibromochloromethane	U	5.5
1,2-Dichloroethene (total)	U	5.5	Chlorobenzene	U	5.5
1,1-Dichloroethane	41	5.5	Ethylbenzene	U	5.5
Vinyl Acetate	U	11	m and p-Xylene	U	5.5
2-Butanone	U	11	o-Xylene	U	5.5
Chloroform	U	5.5	Styrene	U	5.5
1,1,1-Trichloroethane	8200	690	Bromoform	U	5.5
Carbon Tetrachloride	U	5.5	1,1,2,2-Tetrachloroethane	U	5.5
Benzene	U	5.5	1,3-Dichlorobenzene	U	5.5
1,2-Dichloroethane	U	5.5	1,4-Dichlorobenzene	U	5.5
Trichloroethene	170	5.5	1,2-Dichlorobenzene	U	5.5
1,2-Dichloropropane	U	5.5			

NOTES AND DEFINITIONS FOR THIS REPORT

U = not detected at stated detection limit

Sample was analyzed undiluted and diluted for 1,1,1-trichloroethane. The results are from each analysis.

Skinner & Sherman Laboratories Inc. 300 Second Avenue, P.O. Box 521, Waltham, Massachusetts 02254-0521 (617) 890-7200
1-800-4 LAB TEST FAX (617) 890-3883

SAMPLE ID B-4/S-2 SAMPLE # 08 FRACTIONS: A,B,C
Date & Time Collected 01/08/92 11:30:00 Category SOIL

418_1S 303 mg/kg	AG_I_S <2.32 mg/kg	AS_I_S <11.6 mg/kg	BE_I_S <1.16 mg/kg	CD_I_S <1.16 mg/kg	CR_I_S 10.6 mg/kg
CU_I_S 21.0 mg/kg	HG_S <0.11 mg/kg	NI_I_S 11.6 mg/kg	PB_I_S 20.0 mg/kg	SB_I_S <11.6 mg/kg	SE_I_S <11.6 mg/kg
TL_I_S <57.9 mg/kg	ZN_I_S 54.9 mg/kg				

TMA
Thermo Analytical Inc.
Skinner & Sherman Laboratories Inc.
300 Second Avenue, P.O. Box 521, Waltham, Massachusetts 02254-0521 (617) 890-7200
1-800-4 LAB TEST FAX (617) 890-3883

SAMPLE ID B-4/S-2 FRACTION 08C TEST CODE VOA S NAME Volatile Organics - Solid
Date & Time Collected 01/08/92 11:30:00 Category SOIL

DATE INJECTED 01/09/92 DATE EXTRACTED NA DILUTION FACTOR 1.20
All results reported in micrograms/kilogram on a dry basis

COMPOUND	RESULT	DET LIMIT	COMPOUND	RESULT	DET LIMIT
Chloromethane	U	12	Bromodichloromethane	U	6.0
Vinyl Chloride	U	12	4-Methyl-2-pentanone	U	12
Bromomethane	U	12	cis-1,3-Dichloropropene	U	6.0
Chloroethane	U	12	Toluene	U	6.0
Trichlorofluoromethane	U	6.0	trans-1,3-Dichloropropene	U	6.0
Acetone	U	12	1,1,2-Trichloroethane	26	6.0
1,1-Dichloroethene	310	30	2-Hexanone	U	12
Carbon Disulfide	U	6.0	Tetrachloroethene	19	6.0
Methylene Chloride	U	6.0	Dibromochloromethane	U	6.0
1,2-Dichloroethene (total)	U	6.0	Chlorobenzene	U	6.0
1,1-Dichloroethane	49	6.0	Ethylbenzene	U	6.0
Vinyl Acetate	U	12	m and p-Xylene	U	6.0
2-Butanone	U	12	o-Xylene	U	6.0
Chloroform	U	6.0	Styrene	U	6.0
1,1,1-Trichloroethane	20000	750	Bromoform	U	6.0
Carbon Tetrachloride	U	6.0	1,1,2,2-Tetrachloroethane	U	6.0
Benzene	U	6.0	1,3-Dichlorobenzene	U	6.0
1,2-Dichloroethane	U	6.0	1,4-Dichlorobenzene	U	6.0
Trichloroethene	100	30	1,2-Dichlorobenzene	U	6.0
1,2-Dichloropropane	U	6.0			

NOTES AND DEFINITIONS FOR THIS REPORT
U = not detected at stated detection limit

This sample was analyzed undiluted and diluted. The results are from each analysis.

Skinner & Sherman Laboratories Inc. 300 Second Avenue, P.O. Box 521, Waltham, Massachusetts 02254-0521 (617) 890-7200
1-800-4 LAB TEST FAX (617) 890-3883

SAMPLE ID B-5/S-1 SAMPLE # 09 FRACTIONS: A,B
Date & Time Collected 01/08/92 12:30:00 Category SOIL

418_1S	239
	mg/kg

Skinner & Sherman Laboratories Inc. 300 Second Avenue, P.O. Box 521, Waltham, Massachusetts 02254-0521 (617) 890-7200
1-800-4 LAB TEST FAX (617) 890-3883

Received: 01/09/92 Results by Sample

SAMPLE ID B-5/S-1 FRACTION 09B TEST CODE VOA_S NAME Volatile Organics - Solid

Date & Time Collected 01/08/92 12:30:00 Category SOIL

DATE INJECTED 01/09/92 DATE EXTRACTED NA DILUTION FACTOR 1.10

All results reported in micrograms/kilogram on a dry basis

COMPOUND	RESULT	DET LIMIT	COMPOUND	RESULT	DET LIMIT
Chloromethane	U	11	Bromodichloromethane	U	5.5
Vinyl Chloride	U	11	4-Methyl-2-pentanone	U	11
Bromomethane	U	11	cis-1,3-Dichloropropene	U	5.5
Chloroethane	U	11	Toluene	16	5.5
Trichlorofluoromethane	U	5.5	trans-1,3-Dichloropropene	U	5.5
Acetone	U	11	1,1,2-Trichloroethane	U	5.5
1,1-Dichloroethene	100	5.5	2-Hexanone	U	11
Carbon Disulfide	U	5.5	Tetrachloroethene	U	5.5
Methylene Chloride	U	5.5	Dibromochloromethane	U	5.5
1,2-Dichloroethene (total)	41	5.5	Chlorobenzene	U	5.5
1,1-Dichloroethane	U	5.5	Ethylbenzene	55	5.5
Vinyl Acetate	U	11	m and p-Xylene	330	5.5
2-Butanone	U	11	o-Xylene	150	5.5
Chloroform	U	5.5	Styrene	U	5.5
1,1,1-Trichloroethane	130	5.5	Bromoform	U	5.5
Carbon Tetrachloride	U	5.5	1,1,2,2-Tetrachloroethane	U	5.5
Benzene	14	5.5	1,3-Dichlorobenzene	U	5.5
1,2-Dichloroethane	U	5.5	1,4-Dichlorobenzene	U	5.5
Trichloroethene	U	5.5	1,2-Dichlorobenzene	U	5.5
1,2-Dichloropropane	U	5.5			

NOTES AND DEFINITIONS FOR THIS REPORT

U = not detected at stated detection limit

Skinner & Sherman Laboratories Inc. 300 Second Avenue, P.O. Box 521, Waltham, Massachusetts 02254-0521 (617) 890-7200
1-800-4 LAB TEST FAX (617) 890-3883

SAMPLE ID B-5/S-2 SAMPLE # 10 FRACTIONS: A,B
Date & Time Collected 01/08/92 12:30:00 Category SOIL

418_1S	185
	mg/kg

Skinner & Sherman Laboratories Inc. 300 Second Avenue, P.O. Box 521, Waltham, Massachusetts 02254-0521 (617) 890-7200
1-800-4 LAB TEST FAX (617) 890-3883

SAMPLE ID B-5/S-2 FRACTION 10B TEST CODE VOA S NAME Volatile Organics - Solid
Date & Time Collected 01/08/92 12:30:00 Category SOIL

DATE INJECTED 01/09/92 DATE EXTRACTED NA DILUTION FACTOR 1.10
All results reported in micrograms/kilogram on a dry basis

COMPOUND	RESULT	DET LIMIT	COMPOUND	RESULT	DET LIMIT
Chloromethane	U	11	Bromodichloromethane	U	5.5
Vinyl Chloride	U	11	4-Methyl-2-pentanone	U	11
Bromomethane	U	11	cis-1,3-Dichloropropene	U	5.5
Chloroethane	U	11	Toluene	10	5.5
Trichlorofluoromethane	U	5.5	trans-1,3-Dichloropropene	U	5.5
Acetone	U	11	1,1,2-Trichloroethane	U	5.5
1,1-Dichloroethene	16	5.5	2-Hexanone	U	11
Carbon Disulfide	U	5.5	Tetrachloroethene	U	5.5
Methylene Chloride	U	5.5	Dibromochloromethane	U	5.5
1,2-Dichloroethene (total)	32	5.5	Chlorobenzene	U	5.5
1,1-Dichloroethane	20	5.5	Ethylbenzene	8.0	5.5
Vinyl Acetate	U	11	m and p-Xylene	41	5.5
2-Butanone	U	11	o-Xylene	20	5.5
Chloroform	U	5.5	Styrene	U	5.5
1,1,1-Trichloroethane	1000	28	Bromoform	U	5.5
Carbon Tetrachloride	U	5.5	1,1,2,2-Tetrachloroethane	U	5.5
Benzene	U	5.5	1,3-Dichlorobenzene	U	5.5
1,2-Dichloroethane	U	5.5	1,4-Dichlorobenzene	U	5.5
Trichloroethene	2700	690	1,2-Dichlorobenzene	U	5.5
1,2-Dichloropropane	U	5.5			

NOTES AND DEFINITIONS FOR THIS REPORT
U = not detected at stated detection limit

Sample was analyzed undiluted and diluted.
The results are from each analysis.

Skinner & Sherman Laboratories Inc. 300 Second Avenue, P.O. Box 521, Waltham, Massachusetts 02254-0521 (617) 890-7200
1-800-4 LAB TEST FAX (617) 890-3883

SAMPLE ID HB-1/S-1 SAMPLE # 11 FRACTIONS: A,B,C
Date & Time Collected 01/07/92 14:00:00 Category SOIL

418_1S 120 mg/kg	AG_I_S <2.10 mg/kg	AS_I_S 16.7 mg/kg	BE_I_S <1.05 mg/kg	CD_I_S <1.05 mg/kg	CR_I_S 9.21 mg/kg
CU_I_S 21.9 mg/kg	HG_S <0.09 mg/kg	NI_I_S 12.8 mg/kg	PB_I_S 22.5 mg/kg	SB_I_S <10.5 mg/kg	SE_I_S <10.5 mg/kg
TL_I_S <52.5 mg/kg	ZN_I_S 64.8 mg/kg				

Skinner & Sherman Laboratories Inc. 300 Second Avenue, P.O. Box 521, Waltham, Massachusetts 02254-0521 (617) 890-7200
1-800-4 LAB TEST FAX (617) 890-3883

SAMPLE ID HB-1/S-1 FRACTION 11C TEST CODE VOA S NAME Volatile Organics - Solid
Date & Time Collected 01/07/92 14:00:00 Category SOIL

DATE INJECTED 01/10/92 DATE EXTRACTED NA DILUTION FACTOR 1.10
All results reported in micrograms/kilogram on a dry basis

COMPOUND	RESULT	DET LIMIT	COMPOUND	RESULT	DET LIMIT
Chloromethane	U	11	Bromodichloromethane	U	5.5
Vinyl Chloride	U	11	4-Methyl-2-pentanone	U	11
Bromomethane	U	11	cis-1,3-Dichloropropene	U	5.5
Chloroethane	U	11	Toluene	U	5.5
Trichlorofluoromethane	U	5.5	trans-1,3-Dichloropropene	U	5.5
Acetone	U	11	1,1,2-Trichloroethane	U	5.5
1,1-Dichloroethene	U	5.5	2-Hexanone	U	11
Carbon Disulfide	U	5.5	Tetrachloroethene	U	5.5
Methylene Chloride	U	5.5	Dibromochloromethane	U	5.5
1,2-Dichloroethene (total)	U	5.5	Chlorobenzene	U	5.5
1,1-Dichloroethane	U	5.5	Ethylbenzene	U	5.5
Vinyl Acetate	U	11	m and p-Xylene	U	5.5
2-Butanone	U	11	o-Xylene	U	5.5
Chloroform	U	5.5	Styrene	U	5.5
1,1,1-Trichloroethane	20	5.5	Bromoform	U	5.5
Carbon Tetrachloride	U	5.5	1,1,2,2-Tetrachloroethane	U	5.5
Benzene	U	5.5	1,3-Dichlorobenzene	U	5.5
1,2-Dichloroethane	U	5.5	1,4-Dichlorobenzene	U	5.5
Trichloroethene	U	5.5	1,2-Dichlorobenzene	U	5.5
1,2-Dichloropropane	U	5.5			

NOTES AND DEFINITIONS FOR THIS REPORT
U = not detected at stated detection limit

Skinner & Sherman Laboratories Inc. 300 Second Avenue, P.O. Box 521, Waltham, Massachusetts 02254-0521 (617) 890-7200
1-800-4 LAB TEST FAX (617) 890-3883

SAMPLE ID HB-2/S-1 SAMPLE # 12 FRACTIONS: A,B,C
Date & Time Collected 01/07/92 15:00:00 Category SOIL

418_1S 412 mg/kg	AG_I_S <1.97 mg/kg	AS_I_S 10.5 mg/kg	BE_I_S <0.99 mg/kg	CD_I_S <0.99 mg/kg	CR_I_S 4.27 mg/kg
CU_I_S 7.10 mg/kg	HG_S <0.10 mg/kg	NI_I_S 6.30 mg/kg	PB_I_S 19.3 mg/kg	SB_I_S <9.87 mg/kg	SE_I_S <9.87 mg/kg
TL_I_S <49.4 mg/kg	ZN_I_S 23.4 mg/kg				

Skinner & Sherman Laboratories Inc. 300 Second Avenue, P.O. Box 521, Waltham, Massachusetts 02254-0521 (617) 890-7200
1-800-4 LAB TEST FAX (617) 890-3883

Received: 01/09/92 Results by Sample

SAMPLE ID HB-2/S-1 FRACTION 12C TEST CODE VOA_S NAME Volatile Organics - Solid

Date & Time Collected 01/07/92 15:00:00 Category SOIL

DATE INJECTED 01/11/92 DATE EXTRACTED NA DILUTION FACTOR 1.10

All results reported in micrograms/kilogram on a dry basis

COMPOUND	RESULT	DET LIMIT	COMPOUND	RESULT	DET LIMIT
Chloromethane	U	11	Bromodichloromethane	U	5.5
Vinyl Chloride	U	11	4-Methyl-2-pentanone	U	11
Bromomethane	U	11	cis-1,3-Dichloropropene	U	5.5
Chloroethane	U	11	Toluene	U	5.5
Trichlorofluoromethane	U	5.5	trans-1,3-Dichloropropene	U	5.5
Acetone	U	11	1,1,2-Trichloroethane	U	5.5
1,1-Dichloroethene	U	5.5	2-Hexanone	U	11
Carbon Disulfide	U	5.5	Tetrachloroethene	U	5.5
Methylene Chloride	U	5.5	Dibromochloromethane	U	5.5
1,2-Dichloroethene (total)	5.5	5.5	Chlorobenzene	U	5.5
1,1-Dichloroethane	U	5.5	Ethylbenzene	U	5.5
Vinyl Acetate	U	11	m and p-Xylene	U	5.5
2-Butanone	U	11	o-Xylene	U	5.5
Chloroform	U	5.5	Styrene	U	5.5
1,1,1-Trichloroethane	28	11	Bromoform	U	5.5
Carbon Tetrachloride	U	5.5	1,1,2,2-Tetrachloroethane	U	5.5
Benzene	U	5.5	1,3-Dichlorobenzene	U	5.5
1,2-Dichloroethane	U	5.5	1,4-Dichlorobenzene	U	5.5
Trichloroethene	6.6	5.5	1,2-Dichlorobenzene	U	5.5
1,2-Dichloropropane	U	5.5			

NOTES AND DEFINITIONS FOR THIS REPORT

U = not detected at stated detection limit

SAMPLE ID HB-3/S-1 SAMPLE # 13 FRACTIONS: A,B,C
Date & Time Collected 01/07/92 15:50:00 Category SOIL

418_1S 572 mg/kg	AG_I_S <2.06 mg/kg	AS_I_S <10.3 mg/kg	BE_I_S <1.03 mg/kg	CD_I_S <1.03 mg/kg	CR_I_S 5.38 mg/kg
CU_I_S 7.32 mg/kg	HG_S <0.10 mg/kg	NI_I_S 4.68 mg/kg	PB_I_S 10.4 mg/kg	SB_I_S <10.3 mg/kg	SE_I_S <10.3 mg/kg
TL_I_S <51.4 mg/kg	ZN_I_S 49.4 mg/kg				

Skinner & Sherman Laboratories Inc.
300 Second Avenue, P.O. Box 521, Waltham, Massachusetts 02254-0521 (617) 890-7200
1-800-4 LAB TEST FAX (617) 890-3883

SAMPLE ID HB-3/S-1 FRACTION 13C TEST CODE VOA S NAME Volatile Organics - Solid
Date & Time Collected 01/07/92 15:50:00 Category SOIL

DATE INJECTED 01/11/92 DATE EXTRACTED NA DILUTION FACTOR 1.10
All results reported in micrograms/kilogram on a dry basis

COMPOUND	RESULT	DET LIMIT	COMPOUND	RESULT	DET LIMIT
Chloromethane	U	11	Bromodichloromethane	U	5.5
Vinyl Chloride	U	11	4-Methyl-2-pentanone	U	11
Bromomethane	U	11	cis-1,3-Dichloropropene	U	5.5
Chloroethane	U	11	Toluene	U	5.5
Trichlorofluoromethane	U	5.5	trans-1,3-Dichloropropene	U	5.5
Acetone	U	11	1,1,2-Trichloroethane	U	5.5
1,1-Dichloroethene	U	5.5	2-Hexanone	U	11
Carbon Disulfide	U	5.5	Tetrachloroethene	U	5.5
Methylene Chloride	U	5.5	Dibromochloromethane	U	5.5
1,2-Dichloroethene (total)	U	5.5	Chlorobenzene	U	5.5
1,1-Dichloroethane	U	5.5	Ethylbenzene	U	5.5
Vinyl Acetate	U	11	m and p-Xylene	U	5.5
2-Butanone	U	11	o-Xylene	U	5.5
Chloroform	U	5.5	Styrene	U	5.5
1,1,1-Trichloroethane	42	11	Bromoform	U	5.5
Carbon Tetrachloride	U	5.5	1,1,2,2-Tetrachloroethane	U	5.5
Benzene	U	5.5	1,3-Dichlorobenzene	U	5.5
1,2-Dichloroethane	U	5.5	1,4-Dichlorobenzene	U	5.5
Trichloroethene	12	11	1,2-Dichlorobenzene	U	5.5
1,2-Dichloropropane	U	5.5			

NOTES AND DEFINITIONS FOR THIS REPORT
U = not detected at stated detection limit

Skinner & Sherman Laboratories Inc. 300 Second Avenue, P.O. Box 521, Waltham, Massachusetts 02254-0521 (617) 890-7200
1-800-4 LAB TEST FAX (617) 890-3883

SAMPLE ID HB-3A/S-2 SAMPLE # 14 FRACTIONS: A,B,C
Date & Time Collected 01/07/92 16:05:00 Category SOIL

418_1S <25.0 mg/kg	AG_I_S <2.17 mg/kg	AS_I_S 12.2 mg/kg	BE_I_S <1.09 mg/kg	CD_I_S <1.09 mg/kg	CR_I_S 10.2 mg/kg
CU_I_S 10.4 mg/kg	HG_S <0.10 mg/kg	NI_I_S 9.97 mg/kg	PB_I_S 12.9 mg/kg	SB_I_S <10.9 mg/kg	SE_I_S <10.9 mg/kg
TL_I_S <54.3 mg/kg	ZN_I_S 46.7 mg/kg				

Skinner & Sherman Laboratories Inc. 300 Second Avenue, P.O. Box 521, Waltham, Massachusetts 02254-0521 (617) 890-7200
1-800-4 LAB TEST FAX (617) 890-3883

SAMPLE ID HB-3A/S-2 FRACTION 14C TEST CODE VOA_S NAME Volatile Organics - Solid
Date & Time Collected 01/07/92 16:05:00 Category SOIL

DATE INJECTED 01/11/92 DATE EXTRACTED NA DILUTION FACTOR 1.20
All results reported in micrograms/kilogram on a dry basis

COMPOUND	RESULT	DET LIMIT	COMPOUND	RESULT	DET LIMIT
Chloromethane	U	12	Bromodichloromethane	U	6.0
Vinyl Chloride	U	12	4-Methyl-2-pentanone	U	12
Bromomethane	U	12	cis-1,3-Dichloropropene	U	6.0
Chloroethane	U	12	Toluene	U	6.0
Trichlorofluoromethane	U	6.0	trans-1,3-Dichloropropene	U	6.0
Acetone	U	12	1,1,2-Trichloroethane	U	6.0
1,1-Dichloroethene	U	6.0	2-Hexanone	U	12
Carbon Disulfide	U	6.0	Tetrachloroethene	U	6.0
Methylene Chloride	U	6.0	Dibromochloromethane	U	6.0
1,2-Dichloroethene (total)	U	6.0	Chlorobenzene	U	6.0
1,1-Dichloroethane	U	6.0	Ethylbenzene	U	6.0
Vinyl Acetate	U	12	m and p-Xylene	U	6.0
2-Butanone	U	12	o-Xylene	U	6.0
Chloroform	U	6.0	Styrene	U	6.0
1,1,1-Trichloroethane	17	6.0	Bromoform	U	6.0
Carbon Tetrachloride	U	6.0	1,1,2,2-Tetrachloroethane	U	6.0
Benzene	U	6.0	1,3-Dichlorobenzene	U	6.0
1,2-Dichloroethane	U	6.0	1,4-Dichlorobenzene	U	6.0
Trichloroethene	U	6.0	1,2-Dichlorobenzene	U	6.0
1,2-Dichloropropane	U	6.0			

NOTES AND DEFINITIONS FOR THIS REPORT
U = not detected at stated detection limit

Skinner & Sherman Laboratories Inc.
300 Second Avenue, P.O. Box 521, Waltham, Massachusetts 02254-0521 (617) 890-7200
1-800-4 LAB TEST FAX (617) 890-3883

SAMPLE ID HB-4/S-1 SAMPLE # 15 FRACTIONS: A,B,C
Date & Time Collected 01/08/92 10:00:00 Category SOIL

418_1S	11600 mg/kg	AG_I_S	<2.14 mg/kg	AS_I_S	<10.7 mg/kg	BE_I_S	<1.07 mg/kg	CD_I_S	16.4 mg/kg	CR_I_S	16.2 mg/kg
CU_I_S	87.4 mg/kg	HG_S	<0.09 mg/kg	NI_I_S	21.0 mg/kg	PB_I_S	36.2 mg/kg	SB_I_S	<10.7 mg/kg	SE_I_S	<10.7 mg/kg
TL_I_S	<53.5 mg/kg	ZN_I_S	209 mg/kg								

Skinner & Sherman Laboratories Inc.
300 Second Avenue, P.O. Box 521, Waltham, Massachusetts 02254-0521 (617) 890-7200
1-800-4 LAB TEST FAX (617) 890-3883

Received: 01/09/92 **Results by Sample**

SAMPLE ID HB-4/S-1 FRACTION 15C TEST CODE VOA S NAME Volatile Organics - Solid

Date & Time Collected 01/08/92 10:00:00 Category SOIL

DATE INJECTED 01/10/92 DATE EXTRACTED NA DILUTION FACTOR 6.10

All results reported in micrograms/kilogram on a dry basis

COMPOUND	RESULT	DET LIMIT	COMPOUND	RESULT	DET LIMIT
Chloromethane	U	61	Bromodichloromethane	U	30
Vinyl Chloride	U	61	4-Methyl-2-pentanone	U	61
Bromomethane	U	61	cis-1,3-Dichloropropene	U	30
Chloroethane	U	61	Toluene	U	30
Trichlorofluoromethane	U	30	trans-1,3-Dichloropropene	U	30
Acetone	U	61	1,1,2-Trichloroethane	U	30
1,1-Dichloroethene	U	30	2-Hexanone	U	61
Carbon Disulfide	U	30	Tetrachloroethene	U	30
Methylene Chloride	U	30	Dibromochloromethane	U	30
1,2-Dichloroethene (total)	U	30	Chlorobenzene	U	30
1,1-Dichloroethane	U	30	Ethylbenzene	U	30
Vinyl Acetate	U	61	m and p-Xylene	U	30
2-Butanone	U	61	o-Xylene	U	30
Chloroform	U	30	Styrene	U	30
1,1,1-Trichloroethane	450	30	Bromoform	U	30
Carbon Tetrachloride	U	30	1,1,2,2-Tetrachloroethane	U	30
Benzene	U	30	1,3-Dichlorobenzene	U	30
1,2-Dichloroethane	U	30	1,4-Dichlorobenzene	U	30
Trichloroethene	U	30	1,2-Dichlorobenzene	U	30
1,2-Dichloropropane	U	30			

NOTES AND DEFINITIONS FOR THIS REPORT

U = not detected at stated detection limit

Skinner & Sherman Laboratories Inc. 300 Second Avenue, P.O. Box 521, Waltham, Massachusetts 02254-0521 (617) 890-7200
1-800-4 LAB TEST FAX (617) 890-3883

SAMPLE ID HB-5/S-1 SAMPLE # 16 FRACTIONS: A,B,C
Date & Time Collected 01/08/92 10:30:00 Category SOIL

418_1S 8560 mg/kg	AG_I_S 88.4 mg/kg	AS_I_S 12.8 mg/kg	BE_I_S <1.14 mg/kg	CD_I_S 17.0 mg/kg	CR_I_S 17.5 mg/kg
CU_I_S 108 mg/kg	HG_S <0.12 mg/kg	NI_I_S 23.0 mg/kg	PB_I_S 84.6 mg/kg	SB_I_S <11.4 mg/kg	SE_I_S <11.4 mg/kg
TL_I_S <56.9 mg/kg	ZN_I_S 375 mg/kg				

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1-800-4 LAB TEST FAX (617) 890-3883

SAMPLE ID HB-5/S-1 FRACTION 16C TEST CODE VOA S NAME Volatile Organics - Solid
Date & Time Collected 01/08/92 10:30:00 Category SOIL

DATE INJECTED 01/11/92 DATE EXTRACTED NA DILUTION FACTOR 1.20
All results reported in micrograms/kilogram on a dry basis

COMPOUND	RESULT	DET LIMIT	COMPOUND	RESULT	DET LIMIT
Chloromethane	U	12	Bromodichloromethane	U	6.0
Vinyl Chloride	U	12	4-Methyl-2-pentanone	U	12
Bromomethane	U	12	cis-1,3-Dichloropropene	U	6.0
Chloroethane	U	12	Toluene	U	6.0
Trichlorofluoromethane	U	6.0	trans-1,3-Dichloropropene	U	6.0
Acetone	U	12	1,1,2-Trichloroethane	U	6.0
1,1-Dichloroethene	U	6.0	2-Hexanone	U	12
Carbon Disulfide	U	6.0	Tetrachloroethene	6.7	6.0
Methylene Chloride	U	6.0	Dibromochloromethane	U	6.0
1,2-Dichloroethene (total)	U	6.0	Chlorobenzene	U	6.0
1,1-Dichloroethane	U	6.0	Ethylbenzene	U	6.0
Vinyl Acetate	U	12	m and p-Xylene	U	6.0
2-Butanone	U	12	o-Xylene	U	6.0
Chloroform	U	6.0	Styrene	U	6.0
1,1,1-Trichloroethane	10	6.0	Bromoform	U	6.0
Carbon Tetrachloride	U	6.0	1,1,2,2-Tetrachloroethane	U	6.0
Benzene	U	6.0	1,3-Dichlorobenzene	U	6.0
1,2-Dichloroethane	U	6.0	1,4-Dichlorobenzene	U	6.0
Trichloroethene	U	6.0	1,2-Dichlorobenzene	U	6.0
1,2-Dichloropropane	U	6.0			

NOTES AND DEFINITIONS FOR THIS REPORT
U = not detected at stated detection limit

Skinner & Sherman Laboratories Inc. 300 Second Avenue, P.O. Box 521, Waltham, Massachusetts 02254-0521 (617) 890-7200
1-800-4 LAB TEST FAX (617) 890-3883

SAMPLE ID HB-6/S-1 SAMPLE # 17 FRACTIONS: A,B,C
Date & Time Collected 01/08/92 10:45:00 Category SOIL

418_1S 10800 mg/kg	AG_I_S <2.30 mg/kg	AS_I_S 13.3 mg/kg	BE_I_S <1.15 mg/kg	CD_I_S <1.15 mg/kg	CR_I_S 9.91 mg/kg
CU_I_S 12.2 mg/kg	HG_S <0.11 mg/kg	NI_I_S 8.75 mg/kg	PB_I_S 55.1 mg/kg	SB_I_S <11.5 mg/kg	SE_I_S <11.5 mg/kg
TL_I_S <57.5 mg/kg	ZN_I_S 82.0 mg/kg				

Skinner & Sherman Laboratories Inc. 300 Second Avenue, P.O. Box 521, Waltham, Massachusetts 02254-0521 (617) 890-7200
1-800-4 LAB TEST FAX (617) 890-3883

Received: 01/09/92 Results by Sample

SAMPLE ID HB-6/S-1 FRACTION 17C TEST CODE VOA S NAME Volatile Organics - Solid

Date & Time Collected 01/08/92 10:45:00 Category SOIL

DATE INJECTED 01/13/92 DATE EXTRACTED NA DILUTION FACTOR 2.40

All results reported in micrograms/kilogram on a dry basis

COMPOUND	RESULT	DET LIMIT	COMPOUND	RESULT	DET LIMIT
Chloromethane	U	24	Bromodichloromethane	U	12
Vinyl Chloride	U	24	4-Methyl-2-pentanone	U	24
Bromomethane	U	24	cis-1,3-Dichloropropene	U	12
Chloroethane	U	24	Toluene	12	12
Trichlorofluoromethane	U	12	trans-1,3-Dichloropropene	U	12
Acetone	U	24	1,1,2-Trichloroethane	U	12
1,1-Dichloroethene	U	12	2-Hexanone	U	24
Carbon Disulfide	U	12	Tetrachloroethene	U	12
Methylene Chloride	U	12	Dibromochloromethane	U	12
1,2-Dichloroethene (total)	U	12	Chlorobenzene	U	12
1,1-Dichloroethane	U	12	Ethylbenzene	U	12
Vinyl Acetate	U	24	m and p-Xylene	U	12
2-Butanone	U	24	o-Xylene	U	12
Chloroform	U	12	Styrene	U	12
1,1,1-Trichloroethane	160	12	Bromoform	U	12
Carbon Tetrachloride	U	12	1,1,2,2-Tetrachloroethane	U	12
Benzene	U	12	1,3-Dichlorobenzene	U	12
1,2-Dichloroethane	U	12	1,4-Dichlorobenzene	U	12
Trichloroethene	U	12	1,2-Dichlorobenzene	U	12
1,2-Dichloropropane	U	12			

NOTES AND DEFINITIONS FOR THIS REPORT

U = not detected at stated detection limit

Skinner & Sherman Laboratories Inc. 300 Second Avenue, P.O. Box 521, Waltham, Massachusetts 02254-0521 (617) 890-7200
1-800-4 LAB TEST FAX (617) 890-3883

SAMPLE ID HB-5/S-2 SAMPLE # 18 FRACTIONS: A,B,C
Date & Time Collected 01/08/92 11:05:00 Category SOIL

418_1S 1550 mg/kg	AG_I_S <2.30 mg/kg	AS_I_S 15.8 mg/kg	BE_I_S <1.15 mg/kg	CD_I_S 5.72 mg/kg	CR_I_S 10.4 mg/kg
CU_I_S 20.7 mg/kg	HG_S <0.10 mg/kg	NI_I_S 12.9 mg/kg	PB_I_S <11.5 mg/kg	SB_I_S <11.5 mg/kg	SE_I_S <11.5 mg/kg
TL_I_S <57.5 mg/kg	ZN_I_S 83.6 mg/kg				

TMA Thermo Analytical Inc.
Skinner & Sherman Laboratories Inc. 300 Second Avenue, P.O. Box 521, Waltham, Massachusetts 02254-0521 (617) 890-7200
1-800-4 LAB TEST FAX (617) 890-3883

Received: 01/09/92 Results by Sample

SAMPLE ID HB-5/S-2 FRACTION 18C TEST CODE VOA S NAME Volatile Organics - Solid

Date & Time Collected 01/08/92 11:05:00 Category SOIL

DATE INJECTED 01/11/92 DATE EXTRACTED NA DILUTION FACTOR 1.20

All results reported in micrograms/kilogram on a dry basis

COMPOUND	RESULT	DET LIMIT	COMPOUND	RESULT	DET LIMIT
Chloromethane	U	12	Bromodichloromethane	U	6.0
Vinyl Chloride	U	12	4-Methyl-2-pentanone	U	12
Bromomethane	U	12	cis-1,3-Dichloropropene	U	6.0
Chloroethane	U	12	Toluene	U	6.0
Trichlorofluoromethane	U	6.0	trans-1,3-Dichloropropene	U	6.0
Acetone	U	12	1,1,2-Trichloroethane	U	6.0
1,1-Dichloroethene	U	6.0	2-Hexanone	U	12
Carbon Disulfide	U	6.0	Tetrachloroethene	6.2	6.0
Methylene Chloride	U	6.0	Dibromochloromethane	U	6.0
1,2-Dichloroethene (total)	U	6.0	Chlorobenzene	U	6.0
1,1-Dichloroethane	U	6.0	Ethylbenzene	U	6.0
Vinyl Acetate	U	12	m and p-Xylene	U	6.0
2-Butanone	U	12	o-Xylene	U	6.0
Chloroform	U	6.0	Styrene	U	6.0
1,1,1-Trichloroethane	20	6.0	Bromoform	U	6.0
Carbon Tetrachloride	U	6.0	1,1,2,2-Tetrachloroethane	U	6.0
Benzene	U	6.0	1,3-Dichlorobenzene	U	6.0
1,2-Dichloroethane	U	6.0	1,4-Dichlorobenzene	U	6.0
Trichloroethene	U	6.0	1,2-Dichlorobenzene	U	6.0
1,2-Dichloropropane	U	6.0			

NOTES AND DEFINITIONS FOR THIS REPORT

U = not detected at stated detection limit

Skinner & Sherman Laboratories Inc. 300 Second Avenue, P.O. Box 521, Waltham, Massachusetts 02254-0521 (617) 890-7200
1-800-4 LAB TEST FAX (617) 890-3883

TEST CODE 418_1S NAME Petroleum Hydrocarbons

Petroleum Hydrocarbons in Soil, Total Recoverable
EPA Method 418.1 modified (Spectrophotometric, Infrared)

TEST CODE AG_I_S NAME Silver - ICP

SW846 Method 6010 - Inductively Coupled Plasma Spectroscopy (ICP)

TEST CODE AS_I_S NAME Arsenic - ICP

SW846 Method 6010 - Inductively Coupled Plasma Spectroscopy (ICP)

TEST CODE BE_I_S NAME Beryllium - ICP

SW846 Method 6010 - Inductively Coupled Plasma Spectroscopy (ICP)

TEST CODE CD_I_S NAME Cadmium - ICP

SW846 Method 6010 - Inductively Coupled Plasma Spectroscopy (ICP)

TEST CODE CR_I_S NAME Chromium - ICP

SW846 Method 6010 - Inductively Coupled Plasma Spectroscopy (ICP)

TEST CODE CU_I_S NAME Copper - ICP

SW846 Method 6010 - Inductively Coupled Plasma Spectroscopy (ICP)

TEST CODE HGDI_S NAME Mercury Prep - Solids

Solid samples are prepared for mercury analysis in accordance with SW846 Method 7471.

TEST CODE HG_S NAME Mercury - Cold Vapor AA

Solid samples are analyzed for mercury using the cold vapor technique in accordance with SW846 Method 7471. Percent solids determined and results reported on a dry weight basis.

TEST CODE ICPDIS NAME Metals Prep ICP - Solids

SW846 Method 3050 - "Acid Digestion of Sediments, Sludges and Soils" for total metals for analysis by Flame Atomic Absorption Spectroscopy or Inductively Coupled Plasma Spectroscopy. Percent solids determined and results reported on a dry weight basis.

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TEST CODE NI I S NAME Nickel - ICP

SW846 Method 6010 - Inductively Coupled Plasma Spectroscopy (ICP)

TEST CODE PB I S NAME Lead - ICP

SW846 Method 6010 - Inductively Coupled Plasma Spectroscopy (ICP)

TEST CODE SB I S NAME Antimony - ICP

SW846 Method 6010 - Inductively Coupled Plasma Spectroscopy (ICP)

TEST CODE SE I S NAME Selenium - ICP - Solids

SW846 Method 6010 - Inductively Coupled Plasma Spectroscopy (ICP)

TEST CODE TL I S NAME Thallium - ICP Soil

SW846 Method 6010 - Inductively Coupled Plasma Spectroscopy (ICP).

TEST CODE VOA S NAME Volatile Organics - Solid

Volatile Organics in Solid - Hazardous Substance List

SW846 Method 8240 - Modified

"Test Methods for Evaluating Solid Waste", SW-846, US EPA, Office of Solid Waste and Emergency Response, Washington; 3rd Edition.

The solid samples were prepared by Method 5030 and analyzed by Gas Chromatography/Mass Spectroscopy using a modified Method 8240 for determination of Volatile Organic pollutants by the purge and trap technique.

Quality assurance procedures for GCMS include daily tuning and calibration of the mass spectrometer and the use of surrogate standards in each sample to monitor method performance. Quantitation is performed by the internal standard method. Analysis of blanks, duplicate samples and standards are run frequently as further quality assurance procedures.

TEST CODE ZN I S NAME Zinc - ICP

SW846 Method 6010 - Inductively Coupled Plasma Spectroscopy (ICP)

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1-800-4 LAB TEST FAX (617) 890-3883

TMA
Thermo Analytical Inc.

Skinner And Sherman Laboratories
300 Second Avenue
Post Office Box 521
Waltham, MA 02254-0521
(617) 890-7200

Chain of Custody Record

DATE 1/8/92 PAGE 1 OF 2

CLIENT LAPP INDUSTRIES
ADDRESS 130 GILBERT ST. LEROY, NY
PROJECT NO. 5780-008-320
PROJECT NAME
SAMPLERS (SIGNATURE) Charles S Martin

SAMPLE NO.	DATE	TIME	COMP.	GRAB	LOCATION	Parameters: Volatiles	TPH	PP Metals	Other: Iced	Filtered	Preservative	Sample Type	NUMBER OF CONTAINERS	Observations/ Comments
HB-1/S-1	1/7/92	1400		✓	N.LF 0-1'	✓	✓	✓	✓			Soil	3	
HB-2/S-1	1/7/92	1500		✓	N.LF 0-1.5'	✓	✓	✓	✓				3	
HB-3/S-1	1/7/92	1550	✓		FLS 0-1'	✓	✓	✓	✓				3	
HB-3A/S-2	1/7/92	1605		✓	FLS 1-3'	✓	✓	✓	✓				3	
HB-4/S-1	1/8/92	1000		✓	HWS 0-1'	✓	✓	✓	✓				3	
HB-5/S-1	1/8/92	1030		✓	HWS 0-05'	✓	✓	✓	✓				3	
HB-6/S-1	1/8/92	1045	✓		HWS 0-1'	✓	✓	✓	✓				3	
HB-5/S-2	1/8/92	1105		✓	HWS 05-1.5'	✓	✓	✓	✓				3	

RELINQUISHED BY	DATE	RECEIVED BY	DATE	RELINQUISHED BY	DATE	RECEIVED BY	DATE
Signature: Charles S Martin CHARLES E MARTIN	1/8/92	Signature: Barbara Prouty	1/9/92 10:30	Signature: 1/9/92 BP		Signature	
Printed Name: ENSR	TIME 1500	Printed Name: Skinner/Sherman	TIME 10:30 1/9/92	Printed Name: BP 1/9/92	TIME	Printed Name	TIME
Company		Company		Company		Company	
RELINQUISHED BY	DATE	RECEIVED BY	DATE	RELINQUISHED BY	DATE	RECEIVED BY (Laboratory)	DATE
Signature		Signature		Signature		Signature	
Printed Name	TIME	Printed Name	TIME	Printed Name	TIME	Printed Name: Skinner & Sherman Labs	TIME
Company		Company		Company			

24 TOTAL NUMBER OF CONTAINERS

METHOD OF SHIPMENT: Fed Ex

SPECIAL SHIPMENT/HANDLING OR STORAGE REQUIREMENTS

TMA
Thermo Analytical Inc.

Skinner And Sherman Laboratories
300 Second Avenue
Post Office Box 521
Waltham, MA 02254-0521
(617) 890-7200

ain of Custody Record

DATE 1/8/91 PAGE 2 OF 2

CLIENT Lapp Industries
ADDRESS 130 Gilbert Street
Leroy, NY
PROJECT NO. 5780-028-320
PROJECT NAME Lapp Industries
SAMPLERS (SIGNATURE) Joel McSauter

SAMPLE NO.	DATE	TIME	COMP.	GRAB	LOCATION	VOC (EPA 8240)	TPH	App metals										Iced	Filtered	Preservative	Sample Type	NUMBER OF CONTAINERS	Observations/ Comments
MW-1/S-1	1/7/92	11:30		√	MW-1	X	X	X														3	
MW-1/S-2	1/7/92	11:45		√	MW-1	X	[illegible]	[illegible]										/				1	
B-1/S-1	1/7/92	14:45		√	B-1	X	X											/				2	
B-2/S-1	1/7/92	16:10		√	B-2	X	X											/				2	
B-2/S-2	1/7/92	16:15		√	B-2	X	X											/				2	
B-3/S-1	1/8/92	9:15	√	√	B-3	X	X	X										/				3	
B-4/S-1	1/8/92	11:20	√		B-4	X	X	X										/				3	
B-4/S-2	1/8/92	11:30	√		B-4	X	X	X										/				3	
B-5/S-1	1/8/92	12:30			B-5	X	X											/				2	
B-5/S-2	1/8/92	12:40			B-5	X	X											/				2	

RELINQUISHED BY	DATE	RECEIVED BY	DATE	RELINQUISHED BY	DATE	RECEIVED BY	DATE
Signature Charles E Martin	1/8/92	Signature Barbara Proulx	1/9/92	Signature		Signature	
Printed Name CHARLES MARTIN	TIME 1500	Printed Name Skinner | Sherman	TIME 10:30	Printed Name	TIME	Printed Name	TIME
Company GNSR		Company		Company		Company	
RELINQUISHED BY	DATE	RECEIVED BY	DATE	RELINQUISHED BY	DATE	RECEIVED BY (Laboratory)	DATE
Signature		Signature		Signature		Signature	
Printed Name	TIME	Printed Name	TIME	Printed Name	TIME	Printed Name Skinner & Sherman Labs	TIME
Company		Company		Company			

TOTAL NUMBER OF CONTAINERS 23

METHOD OF SHIPMENT FED EX

SPECIAL SHIPMENT/HANDLING OR STORAGE REQUIREMENTS

Scientific Services Since 1922

ENVIRONMENTAL

CHEMICAL ■ PHYSICAL

ELECTRICAL ■ METALLURGICAL

prepared for

ENSR

WORK ORDER # S201060

TMA
Thermo Analytical Inc.

Skinner & Sherman Laboratories Inc.

300 Second Avenue, P.O. Box 521, Waltham, Massachusetts 02254-0521 (617) 890-7200
1-800-4 LAB TEST FAX (617) 890-3883

Received: 01/13/92 01/17/92 15:39:13 Work Not Complete

REPORT TO: ENSR
35 Nagog Park
Acton, MA 01720

ATTEN: Charles Martin

CLIENT: ENSR 02 SAMPLES: 9
COMPANY: ENSR
FACILITY:

PREPARED BY: TMA / Skinner & Sherman Labs.
300 Second Avenue
P.O. Box 521
Waltham, MA 02254

ATTEN: Client Services
PHONE: (617) 890-7200

CERTIFIED BY

CONTACT: DP

WORK ID: LAPP Insulator
TAKEN: By Client
TRANS: Fed Ex# 2931414006
TYPE: Soils
P.O. #:
INVOICE: under separate cover

	SAMPLE IDENTIFICATION
01	B-11/S-2
02	B-11/S-5
03	B-12/S-1
04	B-12/S-4
05	B-13/S-1
06	B-13/S-5
07	B-14/S-1
08	B-14/S-6A
09	B-14/S-6B

TEST CODES and NAMES used on this workorder

418_1S Petroleum Hydrocarbons

SAMPLE ID B-11/S-2 SAMPLE # 01 FRACTIONS: A
Date & Time Collected 01/10/92 08:30:00 Category SOIL

418_1S 2200
mg/kg

SAMPLE ID B-11/S-5 SAMPLE # 02 FRACTIONS: A
Date & Time Collected 01/10/92 09:00:00 Category SOIL

418_1S 64.0
mg/kg

SAMPLE ID B-12/S-1 SAMPLE # 03 FRACTIONS: A
Date & Time Collected 01/10/92 09:10:00 Category SOIL

418_1S 106
mg/kg

SAMPLE ID B-12/S-4 SAMPLE # 04 FRACTIONS: A
Date & Time Collected 01/10/92 09:30:00 Category SOIL

418_1S <25
mg/kg

SAMPLE ID B-13/S-1 SAMPLE # 05 FRACTIONS: A
Date & Time Collected 01/10/92 10:10:00 Category SOIL

418_1S 224
mg/kg

SAMPLE ID B-13/S-5 SAMPLE # 06 FRACTIONS: A
Date & Time Collected 01/10/92 10:40:00 Category SOIL

418_1S 109
mg/kg

SAMPLE ID B-14/S-1 SAMPLE # 07 FRACTIONS: A
Date & Time Collected 01/10/92 11:10:00 Category SOIL

418_1S 176
mg/kg

Skinner & Sherman Laboratories Inc.
300 Second Avenue, P.O. Box 521, Waltham, Massachusetts 02254-0521 (617) 890-7200
1-800-4 LAB TEST FAX (617) 890-3883

SAMPLE ID B-14/S-6A SAMPLE # 08 FRACTIONS: A
Date & Time Collected 01/10/92 11:30:00 Category SOIL

418_1S	1010
	mg/kg

SAMPLE ID B-14/S-6B SAMPLE # 09 FRACTIONS: A
Date & Time Collected 01/10/92 11:40:00 Category SOIL

418_1S	98.5
	mg/kg

Skinner & Sherman Laboratories Inc. 300 Second Avenue, P.O. Box 521, Waltham, Massachusetts 02254-0521 (617) 890-7200
1-800-4 LAB TEST FAX (617) 890-3883

Received: 01/13/92 Test Methodology

TEST CODE 418_1S NAME Petroleum Hydrocarbons

Petroleum Hydrocarbons in Soil, Total Recoverable
EPA Method 418.1 modified (Spectrophotometric, Infrared)

TMA
Thermo Analytical Inc.
Skinner & Sherman Laboratories Inc.
300 Second Avenue, P.O. Box 521, Waltham, Massachusetts 02254-0521 (617) 890-7200
1-800-4 LAB TEST FAX (617) 890-3883

TIVIA
Thermo Analytical Inc.

Skinner And Sherman Laboratories
300 Second Avenue
Post Office Box 521
Waltham, MA 02254-0521
(617) 890-7200

Chain of Custody Record

DATE 1/10/92 PAGE 1 OF 1

CLIENT LAPP INSULATOR
ADDRESS 130 GILBERT ST.
LEROY, NY

PROJECT NO. 5780-028-320
PROJECT NAME LAPP
SAMPLERS (SIGNATURE) Charles E Martin

SAMPLE NO.	DATE	TIME	COMP.	GRAB	LOCATION	TPH	Iced	Filtered	Preservative	Sample Type	NUMBER OF CONTAINERS	Observations/ Comments
B-11/S-2	1/10/92	0830		✓	6-8'	✓					1	
B-11/S-5	"	0900		✓	12-14'	✓				SOIL	1	
B-12/S-1	"	0910		✓	4-6'	✓					1	
B-12/S-4	"	0930		✓	10-12'	✓					1	
B-13/S-1	"	1010		✓	4-6'	✓					1	
B-13/S-5	"	1040		✓	12-14'	✓					1	
B-14/S-1	"	1110		✓	2-4'	✓					1	
B-14/S-6A	"	1130		✓	12-12.5	✓					1	
B-14/S-6B	"	1140		✓	12.5-12.7	✓					1	

RELINQUISHED BY	DATE	RECEIVED BY	DATE	RELINQUISHED BY	DATE	RECEIVED BY	DATE
Signature: Charles E Martin	1/10/92	Signature: Barbara Pennell	1/13/92	Signature		Signature	
Printed Name: CHARLES E. MARTIN	TIME 1500	Printed Name: Barbara Pennell	TIME 8:30	Printed Name	TIME	Printed Name	TIME
Company		Company: Skinner/Sherman		Company		Company	
RELINQUISHED BY	DATE	RECEIVED BY	DATE	RELINQUISHED BY	DATE	RECEIVED BY (Laboratory)	DATE
Signature		Signature		Signature		Signature	
Printed Name	TIME	Printed Name	TIME	Printed Name	TIME	Printed Name: Skinner & Sherman Labs	TIME
Company		Company		Company			

9 TOTAL NUMBER OF CONTAINERS

METHOD OF SHIPMENT: Fed Ex

SPECIAL SHIPMENT/HANDLING OR STORAGE REQUIREMENTS

Appendix D
Laboratory Reports: Groundwater

Scientific Services Since 1922

ENVIRONMENTAL

CHEMICAL ■ PHYSICAL

ELECTRICAL ■ METALLURGICAL

prepared for

ENSR

WORK ORDER # S201070

TMA
Thermo Analytical Inc.

Skinner & Sherman Laboratories Inc.

300 Second Avenue, P.O. Box 521, Waltham, Massachusetts 02254-0521 (617) 890-7200
1-800-4 LAB TEST FAX (617) 890-3883

Received: 01/14/92 01/20/92 11:15:11

REPORT ENSR
TO 35 Nagog Park
Acton, MA 01720

ATTEN Linda McCarthy

CLIENT ENSR 02 SAMPLES 5
COMPANY ENSR
FACILITY

PREPARED TMA / Skinner & Sherman Labs.
BY 300 Second Avenue
P.O. Box 521
Waltham, MA 02254

ATTEN Client Services
PHONE (617) 890-7200

CERTIFIED BY

CONTACT DP

WORK ID LAPP Insulator
TAKEN By Client
TRANS Middlesex Courier
TYPE Water
P.O. #
INVOICE under separate cover

SAMPLE IDENTIFICATION	
01	MW-1
02	MW-2
03	MW-3
04	Field Blank
05	Trip Blank

TEST CODES and NAMES used on this workorder

AG I W	Silver - ICP
AS G W	Arsenic - Graphite Furn.
BE I W	Beryllium - ICP - Water
CD I W	Cadmium - ICP
CR I W	Chromium - ICP
CU I W	Copper - ICP
GFDI W	Graphite Furnace Digestion
HGDI W	Mercury Prep - Aqueous
HG W	Mercury - Cold Vapor AA
ICPDIW	Metals Prep ICP - Aqueous
NI I W	Nickel - ICP
PB G W	Lead - Graphite Furn.
SB I W	Antimony - ICP
SE G W	Selenium - Graphite Furn.
TL G W	Thallium - Graphite Furn.
VOA W	Volatile Organics-Aqueous
ZN I W	Zinc - ICP

Skinner & Sherman Laboratories Inc. 300 Second Avenue, P.O. Box 521, Waltham, Massachusetts 02254-0521 (617) 890-7200
1-800-4 LAB TEST FAX (617) 890-3883

Received: 01/14/92 Results by Sample

SAMPLE ID MW-1 SAMPLE # 01 FRACTIONS: A,B,C

Date & Time Collected 01/13/92 16:30:00 Category WATER

AG_I_W <10 ug/L	AS_G_W <5.0 ug/L	BE_I_W <5 ug/L	CD_I_W <5 ug/L	CR_I_W <20 ug/L	CU_I_W 17.4 ug/L
HG_W <0.20 ug/L	NI_I_W <15 ug/L	PB_G_W <5.0 ug/L	SB_I_W <50 ug/L	SE_G_W 5.5 ug/L	TL_G_W <5.0 ug/L
ZN_I_W 29.9 ug/L					

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1-800-4 LAB TEST FAX (617) 890-3883

Received: 01/14/92 Results by Sample

SAMPLE ID MW-1 FRACTION 01B TEST CODE VOA_W NAME Volatile Organics-Aqueous

Date & Time Collected 01/13/92 16:30:00 Category WATER

DATE INJECTED 1/16/92 DILUTION FACTOR 1.00

All results reported in ug/L

COMPOUND	RESULT	DET LIMIT	COMPOUND	RESULT	DET LIMIT
Chloromethane	U	10	Bromodichloromethane	U	5.0
Vinyl Chloride	U	10	4-Methyl-2-pentanone	U	10
Bromomethane	U	10	cis-1,3-Dichloropropene	U	5.0
Chloroethane	U	10	Toluene	U	5.0
Trichlorofluoromethane	U	5.0	trans-1,3-Dichloropropene	U	5.0
Acetone	U	10	1,1,2-Trichloroethane	U	5.0
1,1-Dichloroethene	22	5.0	2-Hexanone	U	10
Carbon Disulfide	U	5.0	Tetrachloroethene	U	5.0
Methylene Chloride	U	5.0	Dibromochloromethane	U	5.0
1,2-Dichloroethene (total)	16	5.0	Chlorobenzene	U	5.0
1,1-Dichloroethane	1300	50	Ethylbenzene	U	5.0
Vinyl Acetate	U	10	m and p-Xylene	U	5.0
2-Butanone	U	10	o-Xylene	U	5.0
Chloroform	U	5.0	Styrene	U	5.0
1,1,1-Trichloroethane	410	50	Bromoform	U	5.0
Carbon Tetrachloride	U	5.0	1,1,2,2-Tetrachloroethane	U	5.0
Benzene	6.2	5.0	1,3-Dichlorobenzene	U	5.0
1,2-Dichloroethane	U	5.0	1,4-Dichlorobenzene	U	5.0
Trichloroethene	34	5.0	1,2-Dichlorobenzene	U	5.0
1,2-Dichloropropane	U	5.0			

NOTES AND DEFINITIONS FOR THIS REPORT

U = not detected at stated detection limit

Sample was analyzed undiluted and at a 10x dilution for 1,1-dichloroethane + 1,1,1-trichloroethane. Results are from each analysis.

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1-800-4 LAB TEST FAX (617) 890-3883

Received: 01/14/92 Results by Sample

SAMPLE ID MW-2 SAMPLE # 02 FRACTIONS: A,B,C

Date & Time Collected 01/13/92 16:05:00 Category WATER

AG_I_W <10 ug/L	AS_G_W 15.8 ug/L	BE_I_W 5.1 ug/L	CD_I_W <5 ug/L	CR_I_W 174 ug/L	CU_I_W 317 ug/L
HG_W 0.59 ug/L	NI_I_W 241 ug/L	PB_G_W 151 ug/L	SB_I_W <50 ug/L	SE_G_W <5.0 ug/L	TL_G_W <5.0 ug/L
ZN_I_W 928 ug/L					

Skinner & Sherman Laboratories Inc. 300 Second Avenue, P.O. Box 521, Waltham, Massachusetts 02254-0521 (617) 890-7200
1-800-4 LAB TEST FAX (617) 890-3883

Received: 01/14/92 Results by Sample

SAMPLE ID MW-2 FRACTION 02B TEST CODE VOA W NAME Volatile Organics-Aqueous

Date & Time Collected 01/13/92 16:05:00 Category WATER

DATE INJECTED 1/16/92 DILUTION FACTOR 1.00

All results reported in ug/L

COMPOUND	RESULT	DET LIMIT	COMPOUND	RESULT	DET LIMIT
Chloromethane	U	10	Bromodichloromethane	U	5.0
Vinyl Chloride	U	10	4-Methyl-2-pentanone	U	10
Bromomethane	U	10	cis-1,3-Dichloropropene	U	5.0
Chloroethane	U	10	Toluene	U	5.0
Trichlorofluoromethane	U	5.0	trans-1,3-Dichloropropene	U	5.0
Acetone	U	10	1,1,2-Trichloroethane	U	5.0
1,1-Dichloroethene	U	5.0	2-Hexanone	U	10
Carbon Disulfide	U	5.0	Tetrachloroethene	U	5.0
Methylene Chloride	U	5.0	Dibromochloromethane	U	5.0
1,2-Dichloroethene (total)	U	5.0	Chlorobenzene	U	5.0
1,1-Dichloroethane	U	5.0	Ethylbenzene	U	5.0
Vinyl Acetate	U	10	m and p-Xylene	U	5.0
2-Butanone	U	10	o-Xylene	U	5.0
Chloroform	U	5.0	Styrene	U	5.0
1,1,1-Trichloroethane	8.1	5.0	Bromoform	U	5.0
Carbon Tetrachloride	U	5.0	1,1,2,2-Tetrachloroethane	U	5.0
Benzene	U	5.0	1,3-Dichlorobenzene	U	5.0
1,2-Dichloroethane	U	5.0	1,4-Dichlorobenzene	U	5.0
Trichloroethene	U	5.0	1,2-Dichlorobenzene	U	5.0
1,2-Dichloropropane	U	5.0			

NOTES AND DEFINITIONS FOR THIS REPORT

U = not detected at stated detection limit

Skinner & Sherman Laboratories Inc. 300 Second Avenue, P.O. Box 521, Waltham, Massachusetts 02254-0521 (617) 890-7200
1-800-4 LAB TEST FAX (617) 890-3883

SAMPLE ID MW-3 SAMPLE # 03 FRACTIONS: A,B,C
Date & Time Collected 01/13/92 15:45:00 Category WATER

AG_I_W <10 ug/L	AS_G_W 6.4 ug/L	BE_I_W <5 ug/L	CD_I_W <5 ug/L	CR_I_W <20 ug/L	CU_I_W 24.4 ug/L
HG_W <0.20 ug/L	NI_I_W 20.4 ug/L	PB_G_W 15.0 ug/L	SB_I_W <50 ug/L	SE_G_W <5.0 ug/L	TL_G_W <5.0 ug/L
ZN_I_W 70.2 ug/L					

Skinner & Sherman Laboratories Inc. 300 Second Avenue, P.O. Box 521, Waltham, Massachusetts 02254-0521 (617) 890-7200
1-800-4 LAB TEST FAX (617) 890-3883

SAMPLE ID MW-3 FRACTION 03B TEST CODE VOA W NAME Volatile Organics-Aqueous
Date & Time Collected 01/13/92 15:45:00 Category WATER

DATE INJECTED 1/16/92 DILUTION FACTOR 1.00
All results reported in ug/L

COMPOUND	RESULT	DET LIMIT	COMPOUND	RESULT	DET LIMIT
Chloromethane	U	10	Bromodichloromethane	U	5.0
Vinyl Chloride	U	10	4-Methyl-2-pentanone	U	10
Bromomethane	U	10	cis-1,3-Dichloropropene	U	5.0
Chloroethane	U	10	Toluene	U	5.0
Trichlorofluoromethane	U	5.0	trans-1,3-Dichloropropene	U	5.0
Acetone	U	10	1,1,2-Trichloroethane	U	5.0
1,1-Dichloroethene	U	5.0	2-Hexanone	U	10
Carbon Disulfide	U	5.0	Tetrachloroethene	U	5.0
Methylene Chloride	U	5.0	Dibromochloromethane	U	5.0
1,2-Dichloroethene (total)	U	5.0	Chlorobenzene	U	5.0
1,1-Dichloroethane	U	5.0	Ethylbenzene	U	5.0
Vinyl Acetate	U	10	m and p-Xylene	U	5.0
2-Butanone	U	10	o-Xylene	U	5.0
Chloroform	U	5.0	Styrene	U	5.0
1,1,1-Trichloroethane	U	5.0	Bromoform	U	5.0
Carbon Tetrachloride	U	5.0	1,1,2,2-Tetrachloroethane	U	5.0
Benzene	U	5.0	1,3-Dichlorobenzene	U	5.0
1,2-Dichloroethane	U	5.0	1,4-Dichlorobenzene	U	5.0
Trichloroethene	9.0	5.0	1,2-Dichlorobenzene	U	5.0
1,2-Dichloropropane	U	5.0			

NOTES AND DEFINITIONS FOR THIS REPORT
U = not detected at stated detection limit

Skinner & Sherman Laboratories Inc. 300 Second Avenue, P.O. Box 521, Waltham, Massachusetts 02254-0521 (617) 890-7200
1-800-4 LAB TEST FAX (617) 890-3883

Received: 01/14/92 Results by Sample

SAMPLE ID Field Blank FRACTION 04A TEST CODE VOA W NAME Volatile Organics-Aqueous

Date & Time Collected 01/13/92 15:45:00 Category WATER

DATE INJECTED 1/16 DILUTION FACTOR 1.00

All results reported in ug/L

COMPOUND	RESULT	DET LIMIT	COMPOUND	RESULT	DET LIMIT
Chloromethane	U	10	Bromodichloromethane	7.8	5.0
Vinyl Chloride	U	10	4-Methyl-2-pentanone	U	10
Bromomethane	U	10	cis-1,3-Dichloropropene	U	5.0
Chloroethane	U	10	Toluene	U	5.0
Trichlorofluoromethane	U	5.0	trans-1,3-Dichloropropene	U	5.0
Acetone	U	10	1,1,2-Trichloroethane	U	5.0
1,1-Dichloroethene	U	5.0	2-Hexanone	U	10
Carbon Disulfide	U	5.0	Tetrachloroethene	U	5.0
Methylene Chloride	U	5.0	Dibromochloromethane	U	5.0
1,2-Dichloroethene (total)	U	5.0	Chlorobenzene	U	5.0
1,1-Dichloroethane	U	5.0	Ethylbenzene	U	5.0
Vinyl Acetate	U	10	m and p-Xylene	U	5.0
2-Butanone	U	10	o-Xylene	U	5.0
Chloroform	34	5.0	Styrene	U	5.0
1,1,1-Trichloroethane	U	5.0	Bromoform	U	5.0
Carbon Tetrachloride	U	5.0	1,1,2,2-Tetrachloroethane	U	5.0
Benzene	U	5.0	1,3-Dichlorobenzene	U	5.0
1,2-Dichloroethane	U	5.0	1,4-Dichlorobenzene	U	5.0
Trichloroethene	U	5.0	1,2-Dichlorobenzene	U	5.0
1,2-Dichloropropane	U	5.0			

NOTES AND DEFINITIONS FOR THIS REPORT

U = not detected at stated detection limit

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1-800-4 LAB TEST FAX (617) 890-3883

Received: 01/14/92 Results by Sample

SAMPLE ID Trip Blank FRACTION 05A TEST CODE VOA W NAME Volatile Organics-Aqueous

Date & Time Collected not specified Category WATER

DATE INJECTED 1/16/92 DILUTION FACTOR 1.00

All results reported in ug/L

COMPOUND	RESULT	DET LIMIT	COMPOUND	RESULT	DET LIMIT
Chloromethane	U	10	Bromodichloromethane	U	5.0
Vinyl Chloride	U	10	4-Methyl-2-pentanone	U	10
Bromomethane	U	10	cis-1,3-Dichloropropene	U	5.0
Chloroethane	U	10	Toluene	U	5.0
Trichlorofluoromethane	U	5.0	trans-1,3-Dichloropropene	U	5.0
Acetone	U	10	1,1,2-Trichloroethane	U	5.0
1,1-Dichloroethene	U	5.0	2-Hexanone	U	10
Carbon Disulfide	U	5.0	Tetrachloroethene	U	5.0
Methylene Chloride	28	5.0	Dibromochloromethane	U	5.0
1,2-Dichloroethene (total)	U	5.0	Chlorobenzene	U	5.0
1,1-Dichloroethane	U	5.0	Ethylbenzene	U	5.0
Vinyl Acetate	U	10	m and p-Xylene	U	5.0
2-Butanone	U	10	o-Xylene	U	5.0
Chloroform	U	5.0	Styrene	U	5.0
1,1,1-Trichloroethane	U	5.0	Bromoform	U	5.0
Carbon Tetrachloride	U	5.0	1,1,2,2-Tetrachloroethane	U	5.0
Benzene	U	5.0	1,3-Dichlorobenzene	U	5.0
1,2-Dichloroethane	U	5.0	1,4-Dichlorobenzene	U	5.0
Trichloroethene	U	5.0	1,2-Dichlorobenzene	U	5.0
1,2-Dichloropropane	U	5.0			

NOTES AND DEFINITIONS FOR THIS REPORT

U = not detected at stated detection limit

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TEST CODE AG I W NAME Silver - ICP

EPA-600/4-79-020 - Silver - Inductively Coupled Plasma Spectroscopy (ICP)
Method 200.7

TEST CODE AS G W NAME Arsenic - Graphite Furn.

EPA-600 4-79-020 Arsenic - (Atomic Absorption, Furnace Technique) Method 206.2

TEST CODE BE I W NAME Beryllium - ICP - Water

EPA-600/4-79-020 - Beryllium - Inductively Coupled Plasma Spectroscopy (ICP)
Method 200.7

TEST CODE CD I W NAME Cadmium - ICP

EPA-600/4-79-020 - Cadmium - Inductively Coupled Plasma Spectroscopy (ICP)
Method 200.7

TEST CODE CR I W NAME Chromium - ICP

EPA-600/4-79-020 - Chromium - Inductively Coupled Plasma Spectroscopy (ICP)
Method 200.7

TEST CODE CU I W NAME Copper - ICP

EPA-600/4-79-020 - Copper - Inductively Coupled Plasma Spectroscopy (ICP)
Method 200.7

TEST CODE GFDI W NAME Graphite Furnace Digestion

SW846 Method 3020 - Acid digestion of aqueous samples and extracts for analysis
for total metals by graphite furnace atomic absorption spectroscopy

TEST CODE HGDI W NAME Mercury Prep - Aqueous

SW846 Method 7470 preparation of water for mercury analysis.

TEST CODE HG W NAME Mercury - Cold Vapor AA

EPA 600/4-79-020 - Mercury - Automated Cold-Vapor Technique Method 245.1

TEST CODE ICPDIW NAME Metals Prep ICP - Aqueous

SW846 Method 3010 - Acid digestion of aqueous samples and extracts for
total metals for analysis by Flame Atomic Absorption Spectroscopy or
Inductively Coupled Plasma Spectroscopy

TEST CODE NI I W NAME Nickel - ICP

EPA-600/4-79-020 - Nickel - Inductively Coupled Plasma Spectroscopy (ICP)
Method 200.7

TEST CODE PB G W NAME Lead - Graphite Furn.

EPA-600 4-79-020 - Lead - Atomic Absorption, Furnace Technique Method 239.2

TEST CODE SB I W NAME Antimony - ICP

EPA-600/4-79-020 - Antimony - Inductively Coupled Plasma Spectroscopy (ICP)
Method 200.7

TEST CODE SE G W NAME Selenium - Graphite Furn.

EPA-600 4-79-020 -Selenium - Atomic Absorption, Furnace Technique Method 270.2

TEST CODE TL G W NAME Thallium - Graphite Furn.

EPA-600 4-79-020 -Thallium - Atomic Absorption, Furnace Technique Method 279.2

TEST CODE VOA W NAME Volatile Organics-Aqueous

Volatile Organics in Water - Hazardous Substance List

SW846 Method 8240 - Modified

"Test Methods for Evaluating Solid Waste", SW-846, US EPA, Office of
Solid Waste and Emergency Response, Washington; 3rd Edition.

Aqueous samples are analyzed in accordance with Method 8240 using a purge and trap technique followed by Gas Chromatography/Mass Spectroscopy.

Quality assurance procedures for GCMS include daily tuning and calibration of the mass spectrometer and the use of surrogate standards in each sample to monitor method performance. Quantitation is performed by the internal standard method. Analysis of blanks, duplicate samples and standards are run frequently as further quality assurance procedures.

TEST CODE ZN I W NAME Zinc - ICP

EPA-600/4-79-020 - Zinc - Inductively Coupled Plasma Spectroscopy (ICP)
Method 200.7

Skinner & Sherman Laboratories Inc. 300 Second Avenue, P.O. Box 521, Waltham, Massachusetts 02254-0521 (617) 890-7200
1-800-4 LAB TEST FAX (617) 890-3883

CHAIN OF CUSTODY RECORD

Client/Project Name	Project Location
Lapp Insulator	LeRoy, NY
Project No.	**Field Logbook No.**
5780-028-320	
Samplers: (Signature)	**Chain of Custody Tape No.**
Linda A McCarthy	None Provided

Sample No./ Identification	Date	Time	Lab Sample Number	Type of Sample	VOA	P.P. Metals					REMARKS
MW-1	1/13/92	16:30		Water	X	X					Filter P.P. Metals sample
MW-2	1/13/92	16:05		Water	X	X					↓
MW-3	1/13/92	15:45		Water	X	X					
Field Blank	1/13/92	16:20		Water	X						
Trip Blank				Water	X						

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Linda A McCarthy	1/14/92	11:50			
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Barbara Prowse	1/14/92	13:20			
Relinquished by: (Signature)	Date	Time	Received for Laboratory: (Signature)	Date	Time
Sample Disposal Method:	Disposed of by: (Signature)			Date	Time

SAMPLE COLLECTOR	ANALYTICAL LABORATORY
Linda McCarthy	Skinner + Sherman 200 Second Ave. Waltham MA

ENSR

002521

974-3-84