RECORD OF DECISION

FOR

POLE-LITE INDUSTRIES, INC.

5-10-004

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DECLARATION FOR THE

RECORD OF DECISION (ROD)

FOR

POLE-LITE INDUSTRIES, INC.

5-10-004

DECLARATION FOR THE RECORD OF DECISION

SITE NAME AND LOCATION

Pole-Lite Industries, Inc., Route 11, Town of Champlain, Clinton County, New York - Site ID #510004.

STATEMENT OF BASIS AND PURPOSE

This decision document presents the selected remedial action for the Pole-Lite Industries, Inc. Site, developed in accordance with the New York State Environmental Conservation Law (ECL), and is consistent with the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), 42 USC Section 9601, et seq., as amended by the Superfund Amendments and Reauthorization Act of 1986 (SARA), and, to the extent practicable, the National Contingency Plan (NCP). Section V of this record lists the documents that comprise the Administrative Record for the Pole-Lite Industries, Inc. The documents in the Administrative Record are the basis for the selected remedial action. The State of New York concurs with the selected remedial alternative.

ASSESSMENT OF THE SITE

Interim Remedial Measures (IRM's) conducted during and prior to the remedial investigation removed the sources of contamination and significantly contaminated soil from the disposal areas. Only a small amount of residual contamination remains. The residual contamination does not present a current or potential threat to public health, welfare, or the environment.

DESCRIPTION OF THE SELECTED REMEDY

The remedy for this site is the no further action alternative with post closure monitoring. Further remedial measures would produce no environmental or public benefit, since the site does not present a current or potential threat to the public health or environment. Additional remedial measures are not cost-effective, they are only practicable (i.e., technologically feasible) but not practical (i.e., useful).

DECLARATION

The selected remedy is protective of public health and the environment and meets the statutory goal of Article 27, Title 13 of the Environmental Conservation Law of elimination of the significant threat to the environment posed by the disposal of hazardous wastes at the site.

8/8/91
Date

Edward O. Sullivan
Deputy Commissioner
Office of Environmental
Remediation

ROD DECISION SUMMARY

FOR

POLE-LITE INDUSTRIES, INC.

5-10-004

ROD DECISION SUMMARY

A. SITE NAME, LOCATION, AND DESCRIPTION

NAME OF SITE:	Pole-Lite Industries, Inc.
I.D. NO:	5-10-004
STREET ADDRESS:	New York State Route 11
TOWN:	Champlain
COUNTY:	Clinton
ZIP CODE:	12919

The Pole-Lite Industries, Inc. site is located in the Town of Champlain in Clinton County, New York. The general location of the property is shown on Figure 1 and the survey map of the property is shown on Figure 2. The survey map shows the overall layout of the property including the storage areas formerly used for their products. The property is bounded by agricultural lands to the west and north, a commercial property to the east and New York State Route 11 to the south.

The site as shown on Figure 1 occupies the top of a subtle north-south oriented ridge. The Pole-Lite building is located on the high point of land and the land surface falls away from the building in a 360° fashion. The former drum storage area (i.e., the source area) is located at the high point of the property. The land surface slopes away from the source area in a radial west-north-east fashion. All recharge to the source area is through direct infiltration of precipitation. All precipitation which does not infiltrate the ground surface in the source area flows from the property into drainage swales and intermittent streams which represent a part of the regional drainage system which moves water to the north towards the Chazy River, the regional surface and groundwater discharge area.

GEOLOGY

Three unconsolidated units were identified beneath the site. The first unit encountered consists of a brown to gray clay, with some silt. The silty clay is a local discontinuous soil unit that was only identified beneath the former drum storage area shown on Figure 3.

Underlying this unit is a deposit of brown pebbly, silty fine to very fine sand which was identified as the upper glacial till unit. This unit is very dense, but because it is a heterogeneous mixture of various grain sizes, the degree of compaction is highly variable within the unit. The brown till is found continuously beneath the site and is assumed to be continuously present above bedrock or other till units in the Champlain, NY area.

At depths ranging from 9 to 20 feet below grade, the brown till changes in color to a gray till. This unit is similar to the brown till except that it is slightly coarser, less dense, gray in color and has a greater moisture content. The gray till lies directly on bedrock and is continuously present beneath the site and the region. Evaluation of the bedrock showed that a very hard, competent, thinly bedded dolostone and sandstone bedrock type exists beneath the site. Although the rock is thinly bedded, it is very well cemented and in unfractured form.

HYDROLOGY

The hydrogeologic units encountered beneath the site are lumped into three separate units: the clay unit, the glacial till unit, and the bedrock unit. Generally the clay and glacial units are under unconfined or water table conditions (i.e., either perched or permanent). The source of recharge to the shallow unconfined system is precipitation which directly infiltrates from the surface. Because of their low permeability, limited saturated thickness, and low porosity, the clay and till units are not considered true aquifers which are used in the area for potable water supplies. In this regard, only bedrock supplies are utilized in the area of the site. The bedrock unit is the aquifer used for potable water supplies throughout the area. The bedrock aquifer is a confined aquifer (i.e., confined by the glacial till unit) which derives the majority of its recharge from off-site shallow bedrock areas.

Based on the fact that the contaminant plume has only travelled 100 feet in the last 6.5 to 13 years, a contaminant travel time analysis was performed. The results of the travel time analysis indicate a travel speed of 8 to 16 feet/year in a south-easterly direction. (See Figure #5)

CONTAMINANTS

The principal contaminant was 1,1,1-trichloroethane (1,1,1-TCA). Other site associated contaminants include 1,1-dichloroethane (1,1-DCA), 1,1-dichloroethene (1,1-DCE), chloromethane, acetone, and toluene. All contaminants were noted in a dissolved form and no free product were associated with the site.

Contaminant presence was evaluated at all known points of possible contact with the solvents. These include:

1. Pole-Lite Industries, Inc. Building - A survey of the building, its drains, and its foundation was performed with a photoionization detector (PID) with a 11.7 eV probe. No evidence of solvent contamination was noted.

2. Sewage Disposal System - A sludge sample taken from the septic tank indicated the presence of 1,1,1 TCA. Therefore, the septic tank and its contents were removed and a new sewage disposal system was installed. (See Figure #6)

3. East and West Sawdust Pile Areas - Two sawdust piles and the associated contaminated soil were removed. Sample results and photoionization detector surveys confirm that no additional remedial measures were needed. See Table #2 for contaminant concentrations in soil samples taken at the sawdust piles.

4. Solvent Drum Storage Area - Sixty 55 gallon drums were removed and soil sample results indicated contamination of the surface soil (see Table #3A) in the storage area. Therefore, a soil removal action was performed and confirmatory samples were taken. The samples indicated a residual soil contamination still remained in a 60 X 90 foot area that is approximately four feet thick. (See Tables #3B and 3C)

B. SITE HISTORY

Pole-Lite Industries, Inc. manufactured tapered aluminum light poles at the referenced facility from 1973 to 1987. The manufacturing process basically consisted of spinning a straight aluminum stock on a lathe-type machine to taper the stock. In the machining process, a heavy weight machine oil was spread on the stock as a lubricant. Once the stock had been tapered, a cleaning solvent (mineral spirits) was used to wash the oil from the finished pole. The excess cleaning solvent and oil was collected by a catch trough on the tapering machine. Occasionally, during movement of the finished piece, a small amount of oil and solvent dripped onto the floor. Sawdust was spread on the floor to absorb the drippage. From 1973 to 1985, the oil soaked sawdust was dumped on the premises of Pole-Lite at two locations. The two areas are called the sawdust piles (see figure 3.)

In other portions of the manufacturing process, such as welding of bases and arms to poles, another type of cleaning solvent was used. The solvent used for this process was 1,1,1-Trichloroethane. The Trichloroethane was applied to areas to be welded with sponges and the residue was placed into 5-gallon pails. From the period of 1973 to 1984, the majority of the used solvents and oils were reportedly taken off the site for use by employees and local farmers and the balance was stored on-site. Occasional spillage of this stored material was suspected, and in 1984 Pole-Lite began storing the used solvent in 55-gallon drums behind the building. This area is called the drum storage.

In 1985, the supplier of the solvents suggested that Pole-Lite Industries register its waste generation with the Environmental Protection Agency (EPA) and consult the EPA concerning proper handling and disposal of the waste products. During the Spring of 1985, Pole-Lite obtained an EPA generator ID number (NYD062037726). The NYSDEC inspected the facility on May 30, 1985, and on June 21, 1985, an official report (Oil Spill Report No. 850955) was made noting several deficiencies concerning the storage of waste products. As a result of the report, the Department requested clean-up measures to be undertaken.

Upon receipt of the report, Pole-Lite Industries contracted New England Marine Contractors, Inc. (NEMC) of Williston, Vermont, to perform the requested work. An initial investigation was performed on July 22, 1985, and as part of the investigation, a composite sawdust/soil sample was collected. The analytical results indicated elevated levels of 1,1,1-Trichloroethane and other organic solvents.

On October 21, 1985, after receipt of the initial sawdust/soil results, the NYSDEC requested Pole-Lite to perform a groundwater investigation of the site. Pole-Lite subsequently retained Atlantic Testing Laboratories (ATL) to perform the groundwater investigation. ATL resampled each sawdust pile and gathered a soil sample from the former drum storage area. The samples were analyzed and volatile organic compounds were found in the soil near the former drum storage area.

A DEC Resource Conservation and Recovery Act (RCRA) inspection was performed on March 14, 1986, with a report issued on March 27, 1986. The inspection documented deficiencies in the storage of used solvents and oils (sixty 55-gallon drums). Pole-Lite was informed of the deficiencies and the drums were removed from the site within sixty days by Safety Kleen, Inc. of Barre, Vermont.

In June 1987, Pole-Lite contacted Clean Harbors, Inc., a hazardous waste contractor, for the removal of the sawdust piles as an interim remedial measure. During the period of June 22-26, 1987, the sawdust piles and surficial soils suspected of being contaminated were removed from the site by Clean Harbors, Inc. and disposed of at an authorized facility. (See Tables #2 and 3A)

A study to determine the extent of residual contamination at the two sawdust pile areas and the drum storage area was conducted during the period of July 1 through August 11, 1987 by Atlantic Testing Laboratories. Residual contamination was detected at one sawdust pile area and the drum storage area. (See Tables #2 and 3A)

To determine the significance of the residual contamination, a series of monitoring wells were installed and geophysical investigations were conducted between June 22, 1988 to July 7, 1988 (by Malcolm Pirnie, Inc.) with a supplemental investigation during August 1988 to confirm findings of the June/July investigation. As a result of the supplemental investigation, additional soil was removed from the sawdust pile area and from the drum storage area during November 1988 as a second interim remedial measure.

This soil removal event was immediately followed by soil sampling (see Tables #3B and 3C and Figure #4) to define any remaining residual contamination. The results of this investigative work showed residual contamination of both soil and groundwater in the former drum storage area, however, the extent and amount of contamination was unknown.

Based on the accumulated data, the site was reclassified as a Class 2 site since disposal of hazardous waste had been confirmed and a release to the environment had been identified. As a Class 2 site, a Remediation Investigation/Feasibility Study (RI/FS) was conducted to select a remedial action that would effectively eliminate any threats posed by the site. The RI/FS was performed by Adirondack Environmental Associates Inc., of Plattsburgh, New York from October 1989 to March 1991. Due to the apparent small volume of contamination and foreknowledge of effective remedial measures for this type of waste, the RI/FS was focused to evaluate and select a remedial alternative from a list of proven remedies.

During the RI, activities high levels of solvents were noted in the septic tank sludge. As a third interim remedial measure, the sludge was removed by Adirondack Environmental and disposed of by Pollution Solution of Burlington, Vermont. This removal was conducted to expedite cleanup and eliminate any future migration of contaminants from the tank. Carry over of contaminants into the leach field was found to be negligible due to the density of the solvent which tended to accumulate at the bottom of the septic tank.

By the time the remedial investigation was to begin, the potentially contaminated area had been defined as a small area below the drum storage area. Several alternatives were readily identified which could be used to remediate the site. The remedial investigation was focused to quantify and determine the extent of contamination and to collect engineering data for design purposes to determine the implementability and effectiveness of the various alternatives.

The alternatives that were evaluated were: disposal of contaminated soil off-site, landfarming, pump and treat, soil venting, and no further action with post closure monitoring. The remedial investigation found small amounts of remaining contaminants (estimated 2.5 gallons) either adhering to the soil or dissolved in the groundwater in an area of approximately 75 X 135 feet (see Figure #5). A no further action with post closure monitoring alternative is the appropriate selection since the quantity of contaminants remaining only represent residual contamination.

C. ENFORCEMENT

An Order-on-Consent (Index # T111886) was negotiated during 1986 and was signed into effect on February 2, 1987. Under the terms of the Order, the following goals were implemented and achieved:

Phase I Investigation - was performed in order to determine if on-site waste storage practices had adversely affected the environmental conditions.

Phase II Investigation - was performed in order to determine whether or not there was a need for remedial action at the site.

Remedial Program - was performed in the form of a Remedial Investigation/Feasibility Study (RI/FS) in order to select a remedial action alternative

that would effectively eliminate any threats posed by the site.

D. COMMUNITY RELATIONS

A fact sheet on the start-up of the remedial investigation and feasibility study for Pole-Lite was sent to local and state officials, the media, adjacent property owners and interested parties on May 31, 1990. The purpose of this fact sheet was to inform the public about remedial activities underway for the site and to solicit public comments on the RI/FS workplan. A document repository was set up at the Clinton-Essex-Franklin Library in Plattsburgh, New York. The purpose of the repository was to hold key documents associated with the remedial activities for the public to review.

On April 20, 1991 a copy of the proposed remedial action plan and notice of public meeting was sent to the site's full contact list. A public meeting was held on the draft final RI/FS on May 2, 1991 at 7:30 p.m. in the Northeastern Clinton Central School on Route 276 in the Town of Champlain. A thirty day public comment period on the draft final RI/FS was held from April 16, 1991 to May 16, 1991. A legal notice announcing the public meeting and providing information about the proposed remedial alternative was published in advance of the meeting. A meeting transcript was taken and a responsiveness summary (see response to Public Comment, Page III-1) was prepared for comments raised at the public meeting. The responsiveness summary was distributed to the contact list, as appropriate.

A final legal notice will be published in the local newspaper to provide a brief analysis of the remedial alternative selected and provide a response to comments received.

The information upon which the State bases its decision on the selection of the requisite remedial technology is compiled in the Administrative Record. An index to the Administrative Record is contained in the document on Page V-1. Items included in this index may be reviewed by the public at the NYS Department of Environmental Conservation Region 5 office in Ray Brook, N.Y.

E. ALTERNATIVES EVALUATED

Based on the prior removals of contaminated soil, the small volume of remaining contamination and the foreknowledge of effective remedial technologies for handling the types of waste present on-site, the Remediate Investigation/Feasibility Study was focused on the following alternatives:

1. Soil excavation and Off-Site Disposal - This alternative consists of removing contaminated soil with conventional earth-moving equipment (i.e., backhoes, bulldozers, dump trucks, etc.) and transporting the material to an off-site permitted disposal facility.

2. Soil Excavation and Landfarming - This alternative consists of removing the contaminated soil as above and then spreading the soil onto a lined surface to allow volatilization (evaporation) and natural degradation to occur.

3. Pump and Treat - This alternative consists of installing pump wells to extract contaminated groundwater and then routing the water through a treatment system. The treated water is then reinjected into the ground to push the contaminants towards the pump wells or is discharged to the surface.

4. Soil Venting - This alternative consists of extracting contaminants through passive (natural airflow) or active (forced airflow via fan or pump) soil venting. A system of perforated pipes and/or well points is placed in the soil layer between the surface and groundwater which will allow the contaminants to volatilize (vaporize) into the air.

5. No further action with post closure monitoring - This alternative consists of taking no further remedial measures. This action is acceptable when the site has been remediated, through prior remedial measures, to the maximum extent practical and/or it has been determined that the site does not pose a significant threat to human health or the environment.

The USEPA developed criteria to be utilized in the evaluation of remedial alternatives and the Department of Environmental Conservation (DEC) has developed a guidance based on those criteria for selecting the preferred alternative. The DEC formulated guidance is Technical and Administrative Guidance Memorandum (TAGM HWR-90-4030) which provides guidelines for applying criteria for the selection of the appropriate site-specific remedy. The memorandum establishes a method of scoring each alternative as to its ability to meet the criteria and provides a basis of prescreening alternatives (based on short-term effectiveness, long-term effectiveness, and implementability). The scoring system is not truly amenable to situations where there is only residual contamination. However for illustrative purposes, the alternatives were scored which supports the intuitive decision of no action.

The scoring methods, as outlined in the DEC guidance memorandum, were utilized in evaluating all the proposed remedial alternatives. Based on the scoring (see Table 1) and current information, the "no further action with post closure monitoring" alternative provided the best balance of the evaluation criteria. A brief description and an analysis of each of the criteria follows:

1. Short-Term Effectiveness - This involves the period of time needed to achieve protection and addresses any adverse impacts on human health and the environment that may be posed during the construction and implementation period until cleanup goals are achieved.

   All of the proposed alternatives appear to be very effective in the short-term, however, landfarming and soil venting scores slightly lower than the other alternatives due to the possibility of short-term risk to the environment.

2. Long-Term Effectiveness - This involves the ability of a remedy to maintain reliable protection of human health and the environment over time once cleanup goals have been met.

   All alternatives, except for "off-site disposal", appear to be quite effective in the long-term. "Off-site disposal" scored lower than the other alternatives due to the fact that the waste is relocated and not treated.

3. Implementability - This involves the technical and administrative feasibility of a remedy, including the availability of materials and services needed to implement the chosen solution.

   "Off-site disposal" and "landfarming" both require excavation of the contaminated soil which would effect the stability of the adjacent building, therefore implementing these alternatives would be difficult. Due to low permeability (a measure of the rate groundwater flows through soil) of the soil, the perched (water setting on top of a confining layer) nature of the groundwater, and the small quantity of contaminants (estimated 2.5 gallons), it was determined that the "pump and treat" alternative had a low technical feasibility at this site. "Soil Venting" requires that the contaminated area be dewatered and the soil have a high percentage of voids (porosity), however the soil on-site has a low porosity and dewatering would be an unrealistic endeavor.

4. Compliance with Applicable NYS Standards, Criteria and Guidelines - This criteria addresses whether or not a remedy will meet all of the applicable or relevant and appropriate requirements (i.e., standards, criteria, and guidelines) and/or provide grounds for invoking a waiver.

   "Off-site disposal" and "landfarming" both meet all the ARARs, however the "no further action with post closure monitoring" alternative leaves a small residue on-site that within time will naturally degrade.

5. Protection of Human Health and the Environment - This criteria addresses whether or not a remedy adequately provides protection of human health and/or the environment.

   Due to the prior remedial measures, the contamination source was removed and only a small quantity of residual contamination remains with no route of public exposure. Therefore, all the evaluated remedies would provide adequate protection.

6. Reduction of Toxicity, Mobility, or Volume - This involves the anticipated performance of the specific treatment technologies.

   Most of the contaminants have already been removed from the site and only a small quantity of residual contamination is left. Therefore, all the evaluated alternatives adequately meet this criteria.

7. Cost - This criteria involves capital costs, operation and maintenance costs, future capital costs, and cost of future land use.

"No further action with post closure monitoring" has no additional capital costs while "landfarming" and "off-site disposal" would have a low cost effectiveness (based on the small quantity of remaining contaminants). Off-site disposal of waste would greatly increase the overall cost due to the added expense of transportation and disposal.

F. SELECTED REMEDIAL ALTERNATIVE

In summary, the selected alternative is "no further action with post closure monitoring". Three prior interim remedial measures (IRMs) have effectively remediated the site to the maximum extent practicable. Although some residual contamination remains on-site (estimated 2.5 gallons), there are no routes of exposure to the public and, within time, natural degradation will occur. This alternative also provided the best balance of the evaluation criteria developed by the USEPA, for selection of remedial alternatives. Based on all available information, the State of New York has selected the "no further action with post closure monitoring" alternative since it is protective of human health and the environment, attains SCG's, is cost effective, and results in a permanent and significant decrease in contaminants to the maximum extent practicable.

RESPONSIVENESS SUMMARY
FOR PUBLIC MEETING HELD

May 3, 1991

RESPONSIVENESS SUMMARY FOR THE PUBLIC MEETING
ON THE DRAFT FINAL REMEDIAL INVESTIGATION AND FEASIBILITY STUDY
AND PROPOSED REMEDIAL ACTION PLAN FOR POLE-LITE INDUSTRIES, INC.
INACTIVE HAZARDOUS WASTE SITE #510004

Thursday, May 2, 1991, 7:30 p.m.
Northeastern Clinton Central School

On Thursday May 2, 1991, a public meeting was held on the draft final remedial investigation and feasibility study and proposed remedial action plan for the Pole-Lite Industries, Inc. inactive hazardous waste site #510004. This site is located in the Town of Champlain, Clinton County.

There were approximately thirteen people in attendance at this meeting consisting primarily of state officials, consultant representatives, and officials from Pole-Lite Industries. One former employee of Pole-Lite attended this meeting.

Herb Carpenter of Adirondack Environmental Associates, Inc. opened up the meeting, introduced attendees, and provided information about the work program and results of the remedial investigation and feasibility study. The following topics were covered: site description, the manufacturing activities of Pole-Lite, Inc., studies and clean-up resulting from an on-site oil spill in 1985, the consent agreement with the NYS Department of Environmental Conservation in 1986 and the resulting study, interim remedial measures and final recommendations.

The public was also informed that documents associated with the investigation are available at the Clinton-Essex-Franklin Public Library in Plattsburgh and that public comments on the proposed remedial action plan could be sent in to DEC until May 16, 1991.

The only public comment received at the meeting was from a former employee of Pole-Lite who questioned whether there could actually be contaminants in the soil and groundwater at the site based on his knowledge of past practices here. He mentioned that the solvents used evaporated as they were applied. The consultants responded that the only contamination found in the building was in the septic tank which would be understandable based on employees degreasing their hands at the facility. Contaminants were also found in the soils and groundwater adjacent to the building due to an earlier oil spill that occurred at the site and the improper storage of drums and sawdust used as an absorbent. These contaminants have been removed, for the most part, from the site. All that remains are residual amounts of contaminants totalling an estimated 2.5 gallons spread over a 65' X 135" area. The relatively small amounts of contamination found at the site is consistant with the evaporation of most of the solvents rather than entering the soil and groundwater.

<u>Other Public Comments Received During Comment Period</u>

No public comments were received outside the public meeting during the public comment period.

TRANSCRIPT OF PUBLIC MEETING

HELD MAY 2, 1991 ON THE DRAFT FINAL RI/FS

AND PROPOSED REMEDIAL ACTION PLAN FOR

POLE-LITE INDUSTRIES, INC.

Adirondack Environmental Associates
Public Hearing, Thursday, May 3, 1991, 7:30 p.m.
Northeastern Clinton Central School, Champlain, NY

Attendees: James P. Carlin, Adirondack Environmental Assoc.
Herbert O. Carpenter, Adirondack Environmental Assoc.
Susan E. Collamer, NYS Department of Health
Richard J. Fedigan, NYS Department of Health
Antonio J. Gagliardi, Pole-Lite Marketing Corp.
Robert Goldstein, Atty., Stafford Law Firm

Elizabeth M. Lowe, NYS Dept. of Environmental Conservation
James McClain, NYS Department of Environmental Conservation
Steve Revell, Lincoln Applied Geology, Inc.
Bruce Steadman, Atlantic Testing Lab
Daniel L. Steenberge, NYS Department of Environmental Conservation
Alfred Gladue, Observer; former Pole-Lite Employee
Steve Johnston, Atty., Pole-Lite Industries

Good evening. My name is Herb Carpenter. I'm President of Adirondack Environmental Associates, an environmental consulting firm representing a client, Pole-Lite Limited, a Canadian manufacturing firm, the study of which involved that firm. I'd like to welcome you to the public meeting this evening. We waited a little bit longer so that in case somebody had shown up at the Town Hall they'd have an opportunity to notice the notice that we placed there and show up at this meeting.

I'd like to introduce a number of people at the table here with me this evening, and people in the audience that will be available to respond to questions or comments as we proceed through the meeting this evening. With me at the

table is my geologist, Steve Revell, who is responsible in large part for the mathematics, the formulas and the scientific studies. In the event that there are areas that pertain to the technical aspect of the work plan or the remediation or the feasibility studies, I'll address those questions or comments to Steve. And to his right is Jim McClain, who's an engineer at DEC, Raybrook, who is the Project Manager supporting the responsibility of DEC throughout the terms of this project. In the audience, I'll identify Rich Fedigan, who is with New York State Department of Health in Albany, who has also had a significant role to play in this work plan. With him is Sue Collamer, who is likewise with New York State Department of Health in Albany, and she is responsible for citizen participation and that type of input into these types of remedial programs. To her right is Steve Johnston, who is counsel to Pole-Lite, the manufacturing firm in question. And to his right is Tony Gagliardi, who is vice-president of Pole-Lite Manufacturing. And to his right is Dan Steenberge, who is the Regional Remedial Engineer responsible for this particular project, from DEC, Raybrook. And to his right is Betsy Lowe from New York State DEC, Raybrook, who is responsible for citizen participation into these types of work plans and remedial studies. And to her right is a stenographer who will be doing a transcription of these proceedings that are part of our responsibilities for this overall work plan.

I would like to, since there's so few people here, I don't think that we need to be formal. If, as I'm going along, I've lost somebody or you have a question about something, feel free to just raise your hand and have me pause and I'll back up and try to enlighten you, or Steve or somebody else can fill you in.

But, I'd like, first of all, to put into historical perspective the events that have led up to this evening. And to do that, those of you who are here, other than the ones that I've introduced, there are some materials that DEC has provided to the right of the stage here, that pertain to the report that we're going to discuss tonight, public participation and other things that relate to New York State hazard sites and remediation programs. Though the report is, as you can see, rather voluminous, it is loaded with data and specific technical results. I'll try and crunch that through in the next fifteen to twenty minutes, and I'll be referring to these two documents. The top document is a plot plan of Pole-Lite, the manufacturing plant.

NOTE: SURVEY MAP AND SITE PLAN DISPLAY ON EASEL.

Pole-Lite, a Canadian manufacturer of aluminum light poles and flag standards, set up operations in New York State in 1973. This Pole-Lite facility is on Route 11 about a half a mile west of Route 87 interchange on the right-hand

side. It consists of approximately sixteen acres and the building itself, that is located essentially in this portion (reference to visual aid). This bottom one (visual aid) I'll be referring to because there are three, there are actually four areas that I've highlighted in yellow, which you may or may not be able to see very well. But it is this blown up to this size, with the plant here in the center. Off to the left of it is a small highlighted area that's a septic tank, that is one of the places that has undergone remediation in the past several years. This larger area is an area that we refer to in the documents and the work plan, and that I'll refer to this evening, as the drum storage area, which is the area of central contamination in this study. And the two other highlighted areas on the outside are two sawdust piles that I'll refer to in my presentation this evening. One is the west sawdust pile and one is the east sawdust pile.

In the process of manufacturing these light poles... pardon me?

Alfred Gladue:

May I ask a question?

Herb Carpenter:

Sir. If you could come up and just -- I've got a little mike here trying to pick things up.

Alfred Gladue:

I just want to -- you said septic tank over in that...

Herb Carpenter:

Yes, sir. On this...

Alfred Gladue:

Which way are we facing here?

Herb Carpenter:

There are actually...we're looking...this is the road. This is Route 11 right in here...

Alfred Gladue:

Okay, okay.

Herb Carpenter:

There are two septics on it. The one that we refer to, Mr. Gladue, is the older one.

Mr. Gagliardi:

Herb, for the record, Al Gladue used to be the superintendent for Pole-Lite at its inception, so he's probably as familiar ....

Herb Carpenter:

Okay. Then I'll certainly accept in deference what you tell me about what's where, Mr. Gladue. I'm going to slow down just a little bit about the process. But the process that Pole-Lite used in the manufacturing of these poles, in the machining process, they used a machine oil to make the grinding or the milling that much easier as a lubricant. And prior to the welding of these poles and the completion, that machine oil was cleaned with what has been historically a cleaning solvent in that industry, and that is a solvent known as 1,1,1-Trichloroethane, which is a product that we're going to refer to time and again throughout this presentation, and which is the primary solvent of contamination in the report and the document. That and mineral spirits were used to clean these poles before they were welded and before the process was completed. In addition to that, the spent solvents and oils were absorbed by sawdust, which is, again, a practice that has been indicative of that and many other industries from the point of view of this, and that sawdust was ultimately stored in those two sawdust piles that we will refer to later. That's essentially the process that Pole-Lite Manufacturing underwent.

During the period 1973-84, the accumulated sawdust was placed in those two piles that were spent. In addition to that, the spent solvent and fluids and mineral spirits were contained in five-gallon pails. And as was typical in that

timeframe and in that period in industries like this, those pails were taken by employees and farmers and other people that had use either for the cleaning solvents or some other product.

At or about 1984, Pole-Lite changed that process and started storing the spent solvents and oils in 55-gallon drums that were staged in the area that's referred to as the drum storage area.

Along about 1985, New York State DEC received a report of an oil spill. The DEC spill response people were called to the site. The result of that spill report caused Pole-Lite to employ a company, a clean-up contractor and investigation company that is no longer in existence, New England Marine from Burlington. They came in and did a composite study of the two sawdust piles and the drum storage area, and the result of that composite study, a preliminary study, if you will, was that in fact it was a chlorinated hydrocarbon contamination problem. And this particular chlorinated hydrocarbon is this cleaning solvent that I spoke of before, this 1,1,1-Trichloroethane. The result of that was that DEC requested Pole-Lite do some additional groundwater and soil investigation. Pole-Lite undertook those investigations, and in the period of October 1985 on up through relatively recent times, finishing with our own investigations ending about a month to two months

ago, there were varied contractors, consultants and others that were involved in that investigative process; and certain interim remedial measures that were undertaken by Pole-Lite in that period. And I'll refer to some of them as we go along as they impact on the importance of our findings.

In late 1985, again following this spill report and the initial investigation by New England Marine...in late 1985, Pole-Lite contracted with a national company that gets involved in solvent recovery, and that company is Safety Kleen. Coincidental with that in March of 1986, New York State DEC, under provisions of the Resource Conservation and Recovery Act (RCRA), instituted a RCRA inspection on site. The results of that inspection indicated that there were deficiencies in the management of the handling of the storage of those particular drums of solvent that were present, at that time, being stored in this drum storage area. Pole-Lite contracted with Safety Kleen. Safety Kleen responded and removed sixty 55..sixty each 55-gallon drums of spent solvents and oils and other fluids from that particular site.

In June of 87, Pole-Lite contracted with another clean-up company know as Clean Harbors, a national company that does this type of clean up, and Clean Harbors responded and

removed the sawdust from the two sawdust piles and some surfacial soils that were contaminated, as was the sawdust.

From that point, Pole-Lite continued to do other investigations, and they contracted with a couple of other companies -- Atlantic Testing Laboratories and an engineering firm, Malcolm Pirnie, in Albany. The results of those investigations were the implementation of additional monitoring wells that I'll refer to or that are mentioned in the work plan. In May of 1989, Malcolm Pirnie finished its report and its remedial investigation, and it delivered that report to Pole-Lite, which was subsequently submitted to DEC for their review. The essence of that report was, perhaps, summed up in two points. One, that the soil, or the contamination, the sawdust contamination that originally existed in the two sawdust piles had been mitigated and eliminated. And it was no longer a problem. And secondly, that the soil and groundwater had contamination existing below the drum storage area and in what I'd call downgradient of that drum storage area. And by downgradient I mean the results of the reports, if you were to look at the report, the investigations show that the general travel of water is in this direction (visual aid); the general travel of groundwater is in this direction, and that's what I mean by downgradient. So that Malcolm Pirnie indicated: sawdust no longer a problem, however there was evidence of soil and groundwater contamination.

DEC..., oh, let me back up. In December of '86, Pole-Lite entered an agreement, a consent agreement with New York State Department of Environmental Conservation that they agreed under this consent order to continue the investigation that was necessary and to proceed with any mitigation that was necessary to clean up the site. So that, subsequent to December of 1986, Pole-Lite has, in effect, continued to do these kinds of things that they negotiated in that consent order with DEC.

Following the phase II report from Malcolm Pirnie in May of 1989, NYSDEC requested Pole-Lite do a more complete remedial investigation and feasibility study. And they asked that that study be more focused than the earlier studies. The result of that was that Pole-Lite hired Adirondack Environmental Associates, my company, to proceed with that more focused remedial investigation and feasibility study, which is the result of what we are presenting to you this evening and that we're going to have public comment on.

The request to extend that RI/FS or remedial investigation, was based on three points that are rather significant that I'd like to refer to. One was that the lack of determination to the extent of the soil and groundwater contamination that existed in this area was

incomplete. That there was a lack of definition of applicable, appropriate remedial technologies and measures which could conceivably mitigate those problems on site. Thirdly, there was a lack of the definition of the groundwater flow and conditions beneath the drum storage area itself. And lastly that there was a lack of definition of other sources of contaminant problem; i.e., floor drains with in the building, construction joints, and ultimately the septic tank itself.

We initiated the focused RI/FS in October of 89 and continued it through the time that we presented this report and the focused study to DEC, which was sometime in the last month. The objective of our project, or this project is probably best summarized three-fold. The first objective was to evaluate the site conditions based upon earlier data and data from other investigators. Secondly was to conduct the additional investigations that were needed to satisfy the considerations and concerns of NYSDEC and to further define the extent and degree of soil and groundwater contamination. And the last objective was to propose, if necessary, a remedial solution that would effectively eliminate and mitigate or contain the contamination problem. The scope of work, and I'd like to take a minute indicating, because there are about 18 items in that scope of work that were completed during this RI/FS.

One, preparation of a detailed health and safety plan that's part of the work document. And incidentally, if I didn't mention it, the document is available for public review at DEC headquarters in Raybrook; it is also available at the Tri-County library system, Clinton, Essex and Franklin Library system in any of the library systems so that it's available for your review. We further conducted and expanded what we call a soil gas survey. And this is a survey of the uppermost three to five feet of soil, where we actually do some field testing to determine the degree of contamination in that upper area. It allows us to further suggest areas where we may want to ultimately do some monitoring, and it gives us a sufficient amount of field data to accomplish that. Also, the placement of additional monitoring wells at locations upgradient of this contaminated area, downgradient and along gradient of that contaminated area. Remembering that there had been wells drilled earlier by other contractors that were still available for our use. The collection of soil samples during the drilling process so that we could analyze those boring logs and further identify intelligently what it was that was in the ground. Sampling analysis of groundwater collected from the new wells and well as the older monitoring wells, and they are indicated on this plot at each of the locations (visual aid), there being approximately fifteen of them. Sampling and analysis of the septic tank sludge; conduction of groundwater elevation

surveys so that we could determine exactly what the flow was, the degree of flow, the velocity, and the likelihood of migration of contaminate products; hydraulic conductivity tests, that again allow us to tell about the migration of this product; conduction of a contaminate mass in place, so that we could now start looking at how much we're talking about. Not looking at so much parts per million, but how much of this solvent and other kinds of contaminants are actually in the ground; the conduction of a contaminant transport and fate -- in other words, what is its ultimate transport, what is its ultimate fate, how is it going to impact the environment and how is it going to impact human health; air pathway analysis; habitat studies to determine what the biological habitat effect is going to be in the area; conduction of further interim remedial measures and an evaluation of the measures that had already been undertaken to determine their ultimate impact on the study; conduction of a human health risk assessment for both the residual soil and groundwater contamination; finally, a presentation of our conclusions and a proposal for a remedial action master plan; the conduction of a feasibility study for each of the possible remedial options that are currently known about or could conceivably be used in this particular site; and the preparation of our completed focused RI/FS report.

Now, in the rest of the boiler plate, there are some important points that I'd like to bring out before I get

into the specific recommendations and our studies of those possibilities. Groundwater travel time analysis was important to the final development of what exists in the ground and what's going to be happening next year, ten years and twenty years from now. And in that analysis we quickly came to the point that since the first possible contaminant introduction in 1973, in the thirteen years that occurred between that period of time and 1986, that the contamination had traveled only 100 feet in that 13 year period of time. Conjure that image up: a hundred feet of travel in the ground circumstances in 13 years.

Now, there were four points of evaluation that we considered significantly. They included, one, the physical plant and the building itself; two, the sewage disposal area, because, typical in industries such as this, people wash their hands and they clean up, there was the possibility that the contaminant could be introduced into the septic system, and these are on-site septic systems, there is not public water or public sewer -- this is private water and private sewage on site; the east and west sawdust piles; and the former drum storage area and the associated areas to that. [I have a note on the side that I can't read; it'll come to me.] From the point of view of the sewage disposal system, we opened up the septic tank and we opened up the leach field area. And using an instrument that's known as a photoionization detector -- what that

instrument allows us to do is it allows us to know what, not the kind but the amount of contaminated products, volatile organic products that are in the air. It's like a sniffer, if you will. And we can calibrate it and we can sniff for volatile organic compounds. We can't say what they are, but we can stick it somewhere and know if there's none present or if the presence is minimal. So we used that instrument and some others throughout the rest of the studies, and in the case of opening up the septic system, when we tested that for field presence, there was no indication of contamination. When we tested the leach field area, there was likewise no indication of contamination. In addition to that, however, because knowing that 1,1,1-Trichloroethane, the product that we're really concerned about, is a product that you can think of as being heavier than water, assuming, making the assumption that industrial workers would clean the oils off their hands in the wash basins of the restrooms, it's likely that if there was going to be any, an additional point source of that contamination, that it might very well be in the septic system. And when we tested the sludge in the base of that septic system, I can't recall the numbers, but they were significantly high. There was a significant amount of contamination of 1,1,1-Trichloroethane in the sludge.

Pole-Lite, as part of its interim remedial measures, decided to take out that entire septic system. So, we

removed the septic tank, the product that was inside the septic tank was disposed of at a permitted facility, and we replaced -- and that's where that other septic system comes in -- we replaced the old system, actually removing the septic tank, and we replaced it with a new system that's down here closer to the road. And Pole-Lite, the building is now on that system.

Another important note: throughout the entire process of examining all the remedial models, in other words all the possible ways that we could clean this site up, if it was necessary to clean up -- and you need to know that the assumption going into our investigation and every other investigation that occurred on this site, was that a remediation program, a positive remediation program was necessary. That was our assumption: that we are going to have to do something. So entering this process, we used that assumption. We now have to consider certain natural processes that occurred, and I'm just going to highlight them. There were six of them, and they figure in later on into the formulas and the analyses that Steve used when he developed his projections to tell us exactly how much solvent is present in the groundwater and in the soil.

First is advection. Advection is the hydraulic head that drives the process of dilution and dispersion, resulting from conditions in the first groundwater system.

In other words, it is a further mitigating factor that occurs naturally that's going to lessen the problem that exists in the ground. Next is hydrolysis, which is the direct reaction of dissolved compounds, which are the compounds that we're talking about here, with water molecules, and that also is an important natural degrading process. Third, is sorption, which is the process that exists between the aqueous of the liquid phase and the porous medium, or the unsaturated soil that's above the groundwater table. Natural biodegradation, which occurs in virtually every soil and virtually every compound. That process naturally occurs between existing microorganisms and between the contaminants that are present. Volatization, which you can think of in terms of evaporation. A dry-cleaning solvent like 1,1,1-Trichloroethane, if you open it to the air, it evaporates very quickly. That's a further mitigating factor. And then, finally, dissolution, where the contaminants, the liquid phase contaminants result in free phased that are carried to an aqueous phase. Those processes are naturally occurring processes.

Now, in analyzing those processes in the models that we did, we look at the results of the sorption model, and that model indicates that there is more than adequate soil contact with the contaminant, 1,1,1-Tricholoroethane, in the saturated zone between this area and the closest downgradient property line, which is off that map (visual

aid], so that if we were taking a look at this piece of property and this is the drum storage area, the closest downgradient property line is this area here, and the basics of our studies are concerned with how long and what is going to migrate to that property line, if in fact it's ever going to migrate to that property line. The time calculations as a result of that range anywhere from 24 to 370 years. It's going to take anywhere from 24 to 370 years for that to occur, notwithstanding any of the other things that are going to happen, any of these other processes that are going to further degrade that substance.

The soils that are in that area are presently more than adequate, and will always be more than adequate, to adequately sorb the approximate 2.8 gallons of solvent that are present in this entire area. And conjure up the image if you will of the entire amount of solvent that remains in this entire area, this entire system, groundwater and soil system, is about 2.8 or less gallons of 1,1,1-Trichloroethane.

Also important to note are the interim remedial measures that Pole-Lite readily and willingly undertook to mitigate what was originally thought of as a much more significant problem than some of the results that are in this report indicate. The volume of the solvent-type contaminants entering the ground in the drum storage area,

the two sawdust piles and even in the septic tank must have been extremely small. The volume was further reduced by active volatization, or that evaporation process, from the exposed sawdust piles, the drum storage area where it was exposed, and in the washroom where they were washing up their hands.

Significant remedial measures were conducted between March of '86 and September of '90 to eliminate, completely eliminate, contaminant sources and most of the significantly identified materials associated with the entire site. And those interim measures have included several points, and I need to mention those. One, as I indicated before, was the commissioning of Safety Kleen to completely eliminate and take the 60 each 55-gallon drums of solvent. The removal and proper disposal of each of the two sawdust piles, including any associated soil with the sawdust. The removal and proper disposal of the contaminated soil from the drum storage area. A significant amount of soil was removed from that and disposed of at a permitted facility in Canada. The filling of that excavation area and the drum storage area with a relatively low permeability soil to further seal the surface so that that further minimized, in the work plan, as you read the work plan, you'll notice we're talking about recharge, it further eliminates that minimal recharge to the area over the major point of contamination. And then,

finally, the removal and disposal of the septic tank and its associated sludge in late 1990.

Another important point is to remember that although this focused RI/FS, or remedial investigation and feasibility study, was based upon the assumption that active remediation was necessary, the impact of those remedial measures that I've talked about and the impact of the studies that we've concluded to date, may well indicate that no further action, in fact, is necessary on this site. And I'll jump ahead and, in finality, that is, in fact, our recommendation, that no further action will be the best action that's available for this site.

On the basis of some of those earlier conclusions, it was recommended that a remedial action plan be initiated; and, again, with the assumption that an active remedial action would be necessary to take place. In that regard, it was recommended that certain other tasks take place. Compile and conduct feasibility studies of the appropriate technologies of each of the remediation processes that we take a look at. And last, consider a no further action alternative, and a request that the Pole-Lite site be delisted from a Class level 2 site, which poses significant risk to human health, to a Class level 5 site, that poses no risk to human health or the environment, and requires no further mitigation or investigation.

Now, in the feasibility study, there were nine specific models that we examined, and I'll just briefly highlight each of those. One was soil excavation and disposal of the entire contaminated plume area -- excavation and disposal of that soil. Secondly, soil excavation and disposal of a more moderate area, 40x60 foot area. Third, the soil excavation and instead of disposal, landfarming; which, landfarming is much like what you think of landfarming, it's tilling. You bring the product up, you put it on the ground, and you actually till it or turn it over. Again, being because of the volatization of the product, it will evaporate and clear up. Groundwater collection treatment and recharge. Soil ventilation. Actual capping of the drum storage area. And lastly no further action alternative. Again, those are highlighted individually in far greater detail in the work plan, but let me just list some of the down sides to each of those strategies, except the last one.

In the case of excavation and disposal, what will it do to the amount of risk to the area. I mean, we would expect that excavation and disposal is going to minimize that risk and mitigate it. The fact of the matter is it is not going to minimize it and is not going to further mitigate the contaminant present. Since there is no existing risk contaminant impact on the public and the remedial strategy is not capable of lowering the risk any further, then it is

not recommended that that type of remedial strategy be pursued. And, in fact, the conduction of that particular type of strategy may well increase the general risks to the environment and certainly to the workers at the site. That general scenario follows in each of the excavation models. Soil ventilation was also considered, but the need to dewater the contaminated area, that's eliminate the water so that we can ventilate the soil, and the low permeability of the soils indicate that it is virtually an unrealistic remedial plan. A passive approach was considered, and that was placing the clay cap, or an impermeable barrier, over this entire drum storage area and the area that regards the area of the watershed. While that strategy would eliminate the precipitational recharge to and through the contaminant zone, very little recharge occurs in that area, and the notes in the work plan indicate that there's virtually no recharge to that area. So that, although clay capping represents a viable remedial alternative, the surface and shallow subsurface at the site are very compact and relatively impermeable. It is felt that clay capping will likewise not significantly reduce the already minimal recharge process that's present in the source area. And lastly a no further action alternative was considered because the site does not correctly pose a threat to the public or to the environment. The residual presence of solvent beneath the site, it's lack of potential impact to the bedrock aquifer and the public, requires that

consideration be given to the no action alternative. Unless the site is disturbed, there is no route of contaminant exposure to the public. The environmental impact of the residual contamination is to two glacial soil areas and an associated groundwater system, both of which are unusable and inaccessible to the general public. Since a no further action alternative will not cause an increase in risk to the environment or the public, it is felt to be directly applicable.

And those are the findings that we presented to DEC in the report. They are available for public review at either of those places that I indicated before. I hope that I've given you an adequate overview of what the process has been and with that, I would welcome any comments from the audience or any questions that I or one of the others might be able to answer for you.

Dan Steenberge:

I'd like to add to your comments. The northeast corner where you have the drum storage area was never very well documented in anyone's report. In '87 when they did the excavation of the minus 1-1/2 to minus 2 feet was a real process of gray and blue/gray crater maybe 1-1/2 to 2 feet thick right near the drum storage area. When we excavated it, it was very heavily contaminated and that was removed. And that's probably why you never saw any significant

contamination in the soil below, and that's never really covered too well in any one of the reports. And that predates the work that you did. But that was never well addressed in previous reports, and that's exactly where the material was caught up in clay and that kind of clay is like modeling clay you might buy your kids or something. That's probably one of the reasons you never saw much contamination in that area.

Herb Carpenter:

Certainly to further support the conclusion that the interim remedial measures that were undertaken by Pole-Lite very quickly on the identification of these contaminant problems certainly added to the success with which the site has been handled. Any other comments or thoughts? Yes, sir.

Alfred Gladue:

As you know, I worked for Pole-Lite. And right now I'm not affiliated with Pole-Lite so I have no connection. But, I don't follow all these statements here in the review. When I worked there, things weren't done that way, let's put it that way. And I was there for seven or eight years, maybe. And this cleaning agent that we were using for the welding was not used on the overall pole, it was just used in the welding area, which was maybe two or three inches wide. So, now, how this much of this stuff, which

evaporated almost as you put it on -- in fact it did evaporate -- how could it be all over the floor and the sawdust and everything else?

Herb Carpenter:

We didn't find that it was. We found -- in other words, as we look at these numbers now, you have to remember that each of the stages of investigation we expected, in all honesty, much more significant contamination than what we actually found. So it would seem to bear out. But, also, I can only speak to the fact that we looked with historical data. I may be off on the amount of pole that was cleaned, but essentially the concept is the same. And we never really felt that the contamination problem was going to be great. And the results of the study seem to indicate that.

Alfred Gladue:

There was oil spillage from the _____ machine in the soil, but that was oil.

Herb Carpenter:

The building itself proofed out. We found no evidence of contamination in any of the composition or cracks, the floor drains. And, as I indicated, the only thing we found was in the septic tank, which would be understandable from employees who may have used that to degrease the grease that

was on their hands. But, again, that's only conjecture on our part based upon what possibly happen.

Alfred Gladue:

I'm only here to satisfy my own feelings on this because I know that this didn't happen, not in the way that it's been described in the papers.

Herb Carpenter:

Okay. Thank you.

Steve Revell:

I'm really happy to hear you discuss that point, because, as Herb said, I think we started out with a remedial investigation that had been partially done. And with the thoughts, almost preconceived notions, that there was going to be plenty there to find. And I think throughout this thing we have progressively come to the same conclusion that you have, and that is that, frankly, very little of this stuff spilled. Unfortunately, with solvents a little can go a fair distance, and especially when you're talking about parts per billion numbers. Parts per billion is awfully small, and for us to end up with an estimate of 2-1/2 gallons of solvent on that site or in the ground was a real indication to me that actually very little had entered the ground. I think a number of coincidental things happened here. One of them was that Dan mentions that clay

unit that was in the drum storage area. It seems to me like the only place on this site that there was remaining clay deposits. Because when we did our investigation 20 feet away from that area, we were out of it. Yet, within 5 feet of that open hole that was back there, it was that gray, sticky clay; very impermeable material. So, fortunately the drums were placed in about the best place they could have been placed. Realizing that was the way things happened back then in the late '70s, mid '70s. And fortunately they were placed on that clay. And I agree with Dan, I think that interim remediation that removed the clay that was directly beneath the drums in fact took the majority of the stuff that had spilled and got it taken care of appropriately. So, we end up with the same conclusion as you. And I'm happy to hear from somebody who was involved with the practice.

Alfred Gladue:

Because in that area you're talking about now, that was backfilled years ago. When we first planned the site, there was a tremendous amount of clay brought into that area and into certain sections.

Steve Revell:

Well, somebody was pointed in the right direction.

Herb Carpenter:

Any other comments? As is mentioned in the release, DEC will continue to entertain any written comments or for any other requests for information, you can certainly contact DEC or us or contact the library. Betsy, is there anything else that I need to ...

Betsy Lowe:

Just that May 15 is the deadline for comments. And then, as is required in our citizen participation program, we will be issuing a legal notice on the final action taken and a meeting summary will be available.

Dan Steenberge:

Could I add a few things, Herb? It might be worthwhile mentioning the tenuation factor in the area of the source. It might be worthwhile to note that's very loosely termed groundwater, and that it really wasn't groundwater. It's simply water in the soil pore space. The other thing you mentioned is that your report said we would move from a Class 2 to a 5. That will have to be approved by the Deputy Commissioner of the NYS Department of Environmental Conservation. We have to present our finding to the Deputy Commissioner before it changes category. The Deputy Commissioner's decision when issued will determine the basis for change in category. We'll have to wait for that to happen.

Herb Carpenter:

Thank you. Anything else? Then, I thank you for coming. This will be available to DEC within the next couple of weeks.

FIGURES AND TABLES

FOR

POLE-LITE INDUSTRIES, INC.

5-10-004

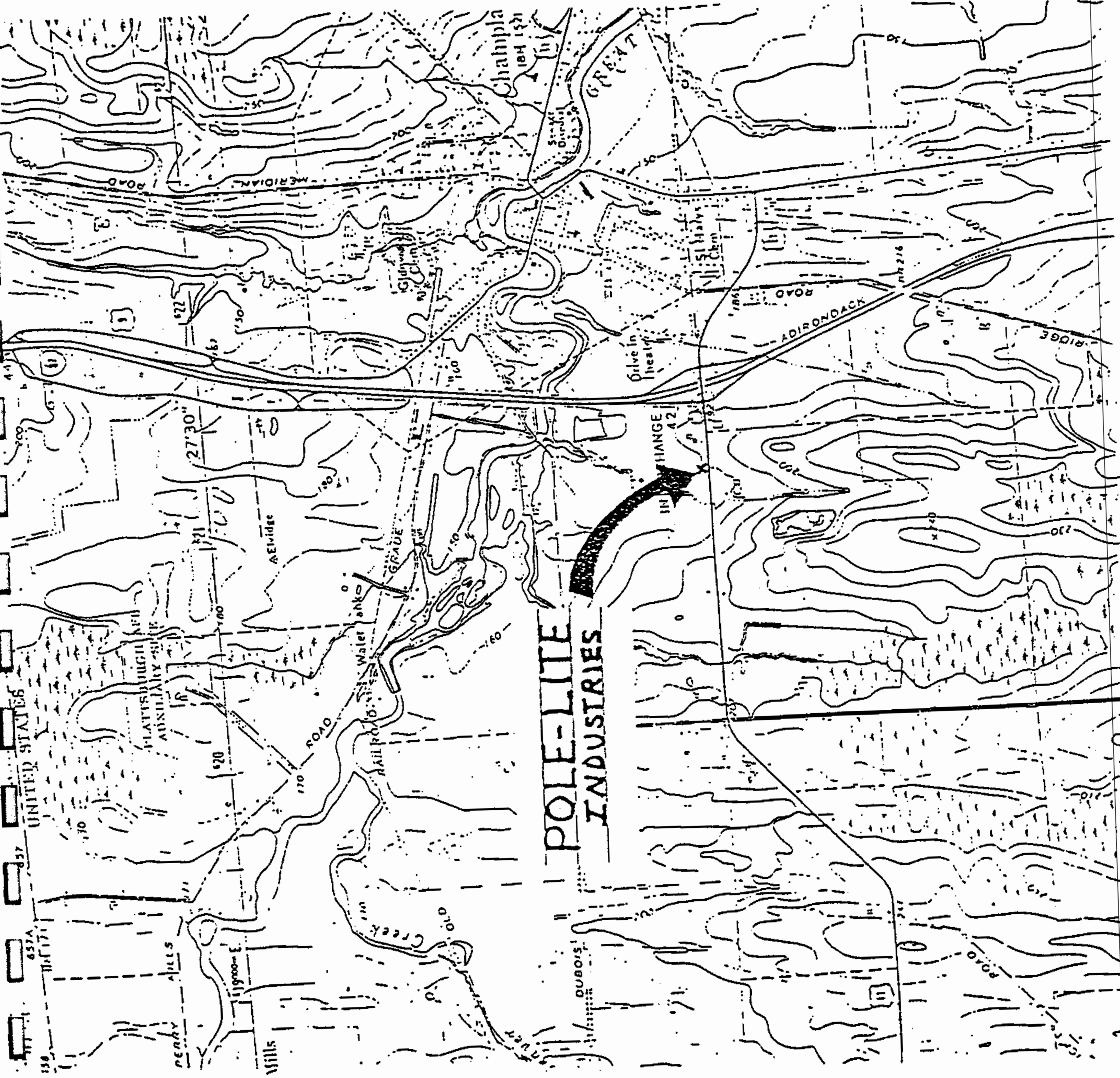
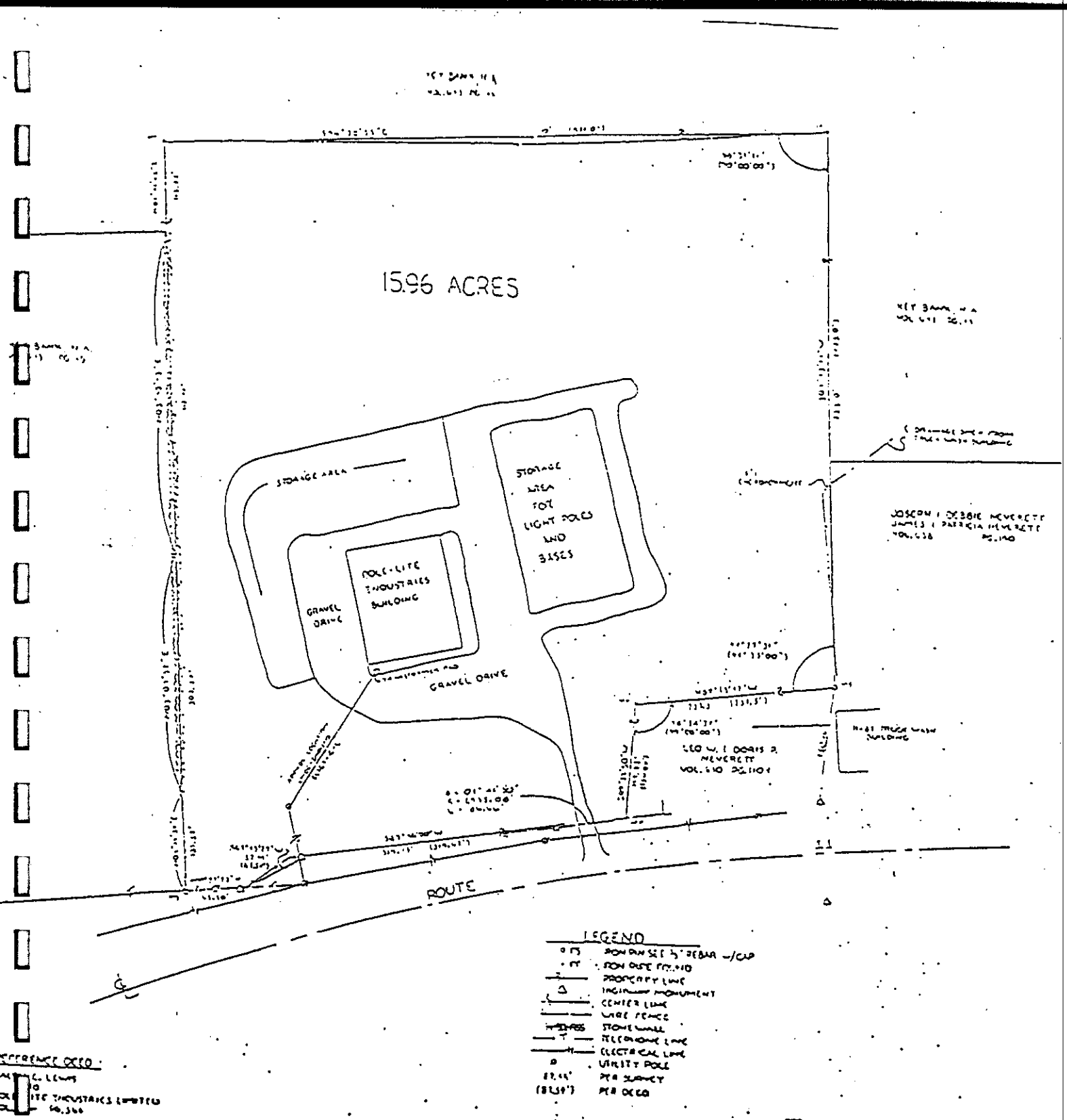

POLE-LITE
INDUSTRIES
ADIRONDACK
MERIDIAN
ROAD
GREAT
RIDGE
GRADE
DUBOIS
UNITED STATES

FIGURE #1



Pole-Lite Industries, Inc

Figure #2

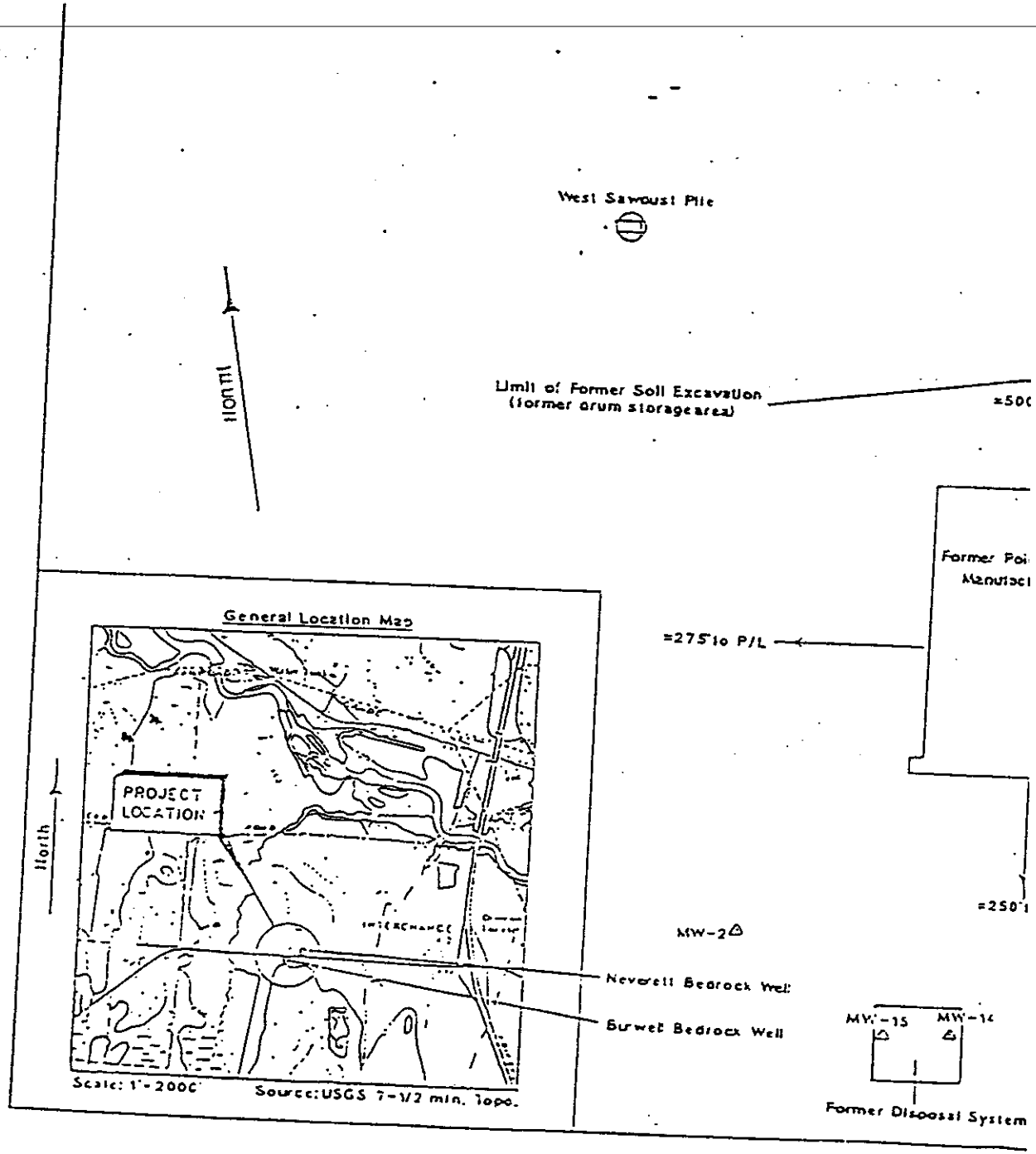

West Sawdust Pile
North
Limit of Former Soil Excavation
(former drum storage area)
=50
Former Poi
Manufact
=275' to P/L
=250'
General Location Map
PROJECT LOCATION
North
INTERCHANGE
MW-2
Neverett Bedrock Well
Burwell Bedrock Well
MW-15
MW-1
Former Disposal System
Scale: 1"=2000'
Source: USGS 7-1/2 min. Topo.

TABLE 1

POLE-LITE INDUSTRIES, INC.
I.D. NO. 5-10-004

ALTERNATIVE EVALUATION TABLE

	OFF-SITE DISPOSAL	LAND FARMING	PUMP & TREAT	SOIL VENTING	NO FURTHER ACTION
Short-Term Effectiveness* (Max. Score = 10)	10	9	10	9	10
Long-Term Effectiveness* (Max. Score = 15)	11	15	12	15	13
Implimentability** (Max. Score = 15)	9	9	6	7	15
Compliance w/ARARs (Max. Score = 10)	10	10	Rejected	Rejected	6
Protection of Health & Environment (Max. Score = 20)	20	20	Rejected	Rejected	20
Reduction (Max. Scroe = 15)	15	15	Rejected	Rejected	13
Cost (Max. Score = 15)	0	8	Rejected	Rejected	15
TOTAL SCORE	75	86	N/A	N/A	92

* Alternative rejected if total of short and long term effectiveness is <10

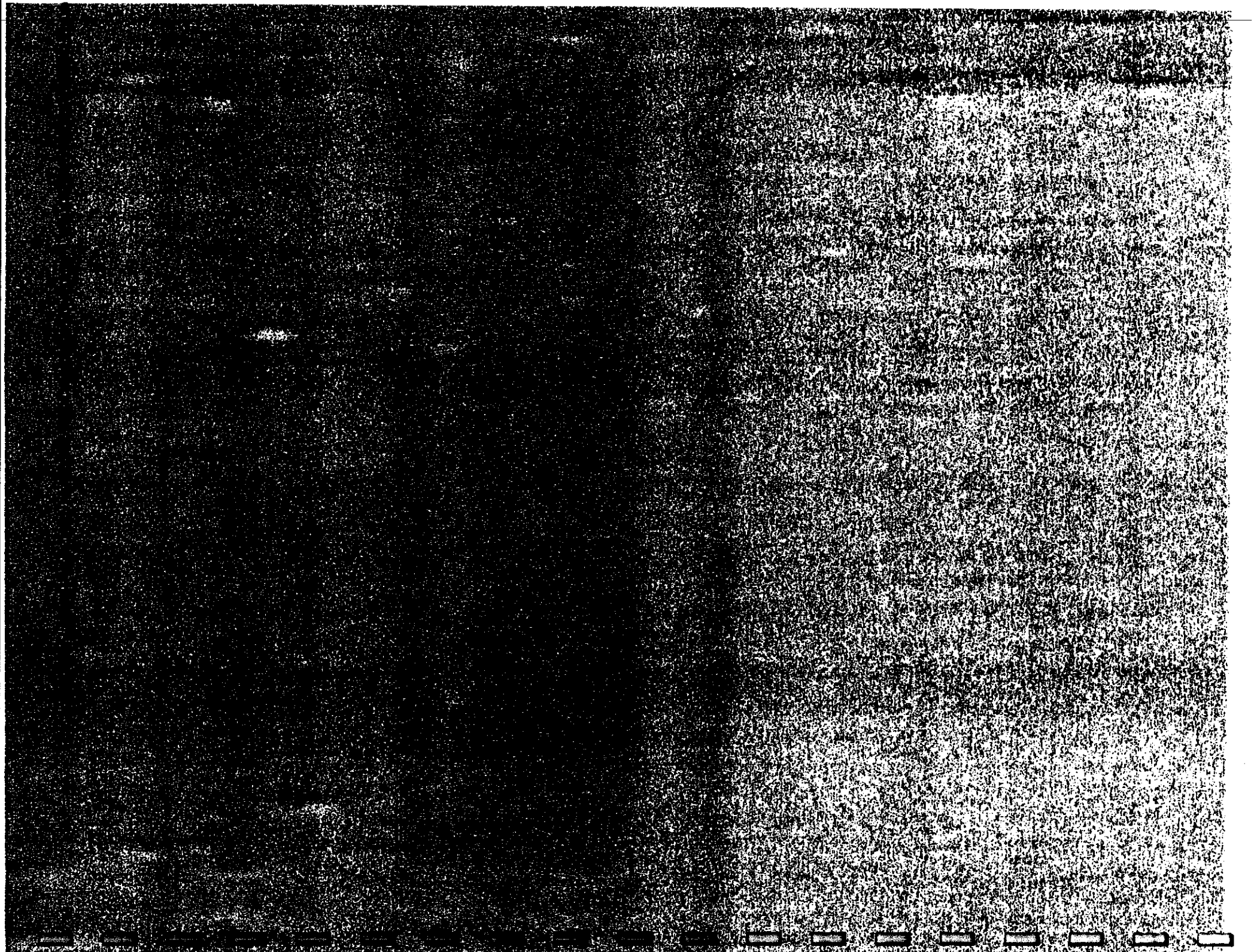
** Alternative rejected if implimentability is <8

POLE-LITE IND.
HISTORICAL SOIL SAMPLE RESULTS

SAWDUST PILES

COMPOUND mg/kg	WSP 0-8" 4-2-86	WSP 0.5-2.0' 7-6-87	WSP 2-4' 7-6-87	WSP 5-6' 7-6-87	ESP 0-8" 4-2-86	ESP 5-7' 7-6-87	ESP 7-9' 7-6-87	ESP 9-11' 7-6-87
1,1 DCE	*	*	*	*	*	*	*	*
1,1 DCA	*	*	*	*	*	*	*	*
1,2 DCA	*	*	*	*	*	*	*	*
1,1,1 TCA	*	*	*	*	1.1	*	*	*
1,1,2 DCA	*	*	*	*	*	*	*	*
TCE	*	*	*	*	<.5	*	*	*
Acetone	1.7	*	*	*	*	*	*	*
Methylene Chloride	0.075	*	*	*	*	0.008	*	*
Xylenes	*	*	*	*	*	*	*	*
Toluene	*	*	*	*	*	*	*	*
2-Butanone	0.11	*	*	*	*	*	*	*
Ethyl Benzene	*	*	*	*	*	*	*	*

NOTES:
1) WSP = West Sawdust Pile
2) ESP = East Sawdust Pile
3) * = Below Detection Limit



POLE-LITE IND.
HISTORICAL SOIL SAMPLE RESULTS

SOURCE AREA PRIOR TO SOIL REMOVAL

COMPOUND mg/kg	SA 0-8" 4-2-86	SA 5-7' 7-6-87	SA 7-7.7' 7-6-87	SA 8-10' 7-6-87	SA 10-11.7' 7-6-87
1,1 DCE	130	*	*	*	*
1,1 DCA	*	0.005	0.039	*	*
1,2 DCA	*	*	*	*	*
1,1,1 TCA	1300	0.077	0.14	0.014	*
1,1,2 DCA	*	*	*	*	*
TCE	*	*	*	*	*
Acetone	1.7	0.39	*	0.058	0.01
Methylene Chlorid	*	*	*	0.015	0.011
Xylenes	91	0.005	0.096	0.003	*
Toluene	<25	*	*	*	*
2-Butanone	*	*	*	*	*
Ethyl Benzene	*	*	*	*	*
Total Organics	1522.7	0.477	0.275	0.09	0.021

NOTES: 1) SA = Source Area
2) * = Below Detection Limit

POLE-LITE IND.
HISTORICAL SOIL SAMPLE RESULTS

SOURCE AREA AFTER SOIL REMOVAL

COMPOUND mg/kg	EX-1 0.5' 11-16-88	EX-1 2-3' 11-16-88	EX-2 0.5' 11-16-88	EX-2 2-3' 11-16-88	EX-3 0.5' 11-16-88	EX-3 2-3' 11-16-88	EX-4 0.5' 11-16-88	EX-4 2-3' 11-16-88
1,1 DCE	*	*	*	*	*	*	*	*
1,1 DCA	*	*	2	*	*	*	0.32	*
1,2 DCA	*	*	*	*	*	*	*	*
1,1,1 TCA	7.5	5.9	35.4	1.8	10.4	*	75	56.5
1,1,2 DCA	*	*	*	*	*	*	*	*
TCE	*	*	*	*	*	*	*	*
Acetone	+	+	+	+	+	+	+	+
Methylene Chloride	0.3	1.6	1	*	0.4	0.75	*	6.6
Xylenes	*	*	*	*	*	*	24	27
Toluene	*	*	0.45	*	*	*	*	1.4
2-Butanone	+	+	+	+	+	+	+	+
Ethyl Benzene	*	*	*	*	*	*	1	1.4
Total Organics	7.8	7.5	38.85	1.8	10.8	0.75	100.32	92.9

NOTES:
1) EX = Excavation Sample
2) + = No Analysis Done
3) * = Below Detection Limit

POLE-LITE IND.
HISTORICAL SOIL SAMPLE RESULTS

PERIMETER OF THE SOURCE AREA

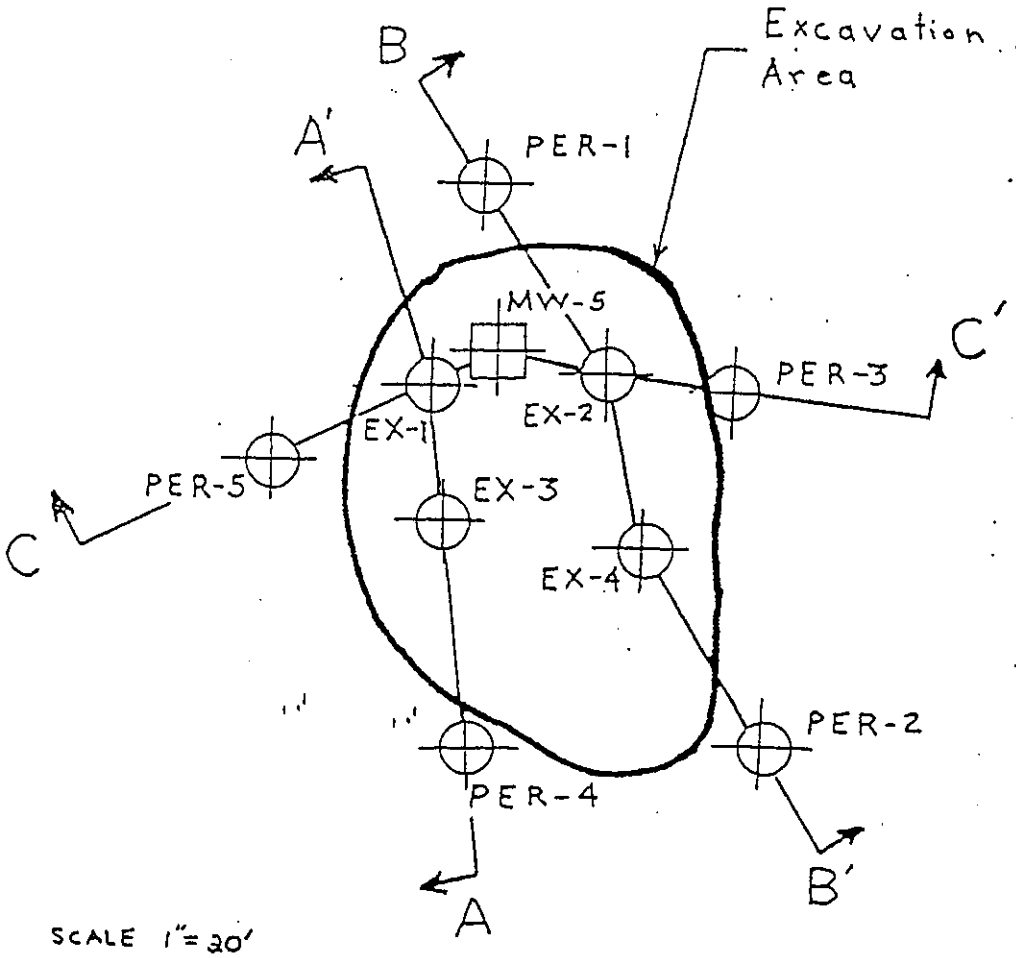
COMPOUND mg/kg	PER-1 0.5-1' 11-16-88	PER-1 2-3' 11-16-88	PER-2 0.5-1' 11-16-88	PER-2 2-3' 11-16-88	PER-3 0.5-1' 11-16-88	PER-3 2-3' 11-16-88	PER-4 0.5-1' 11-16-88	PER-4 2-3' 11-16-88	PER-5 0.5-1' 11-16-88	PER-5 2-3' 11-16-88
1,1 DCE	*	*	*	*	*	*	*	*	*	*
1,1 DCA	*	*	2	*	*	*	*	*	*	*
1,2 DCA	*	*	*	*	*	*	*	*	*	*
1,1,1 TCA	*	1.8	1.4	*	3.5	*	0.5	*	*	*
1,1,2 DCA	*	*	*	*	*	*	*	*	*	*
TCE	*	*	*	*	*	*	*	*	*	*
Acetone	+	+	+	+	+	+	+	+	+	+
Methylene Chlorid	2.3	*	0.3	*	*	5.6	0.71	4.2	0.85	2.3
Xylenes	*	*	*	*	*	*	*	*	*	*
Toluene	*	*	*	*	*	*	*	*	*	*
2-Butanone	+	+	+	+	+	+	+	+	+	+
Ethyl Benzene	*	*	*	*	*	*	*	*	*	*
Total Organics	2.3	1.8	3.7	0	3.5	5.6	1.21	4.2	0.85	2.3

NOTES:
1) PER = Perimeter Sample
2) + = No Analysis Done
3) * = Below Detection Limit

POLE-LITE

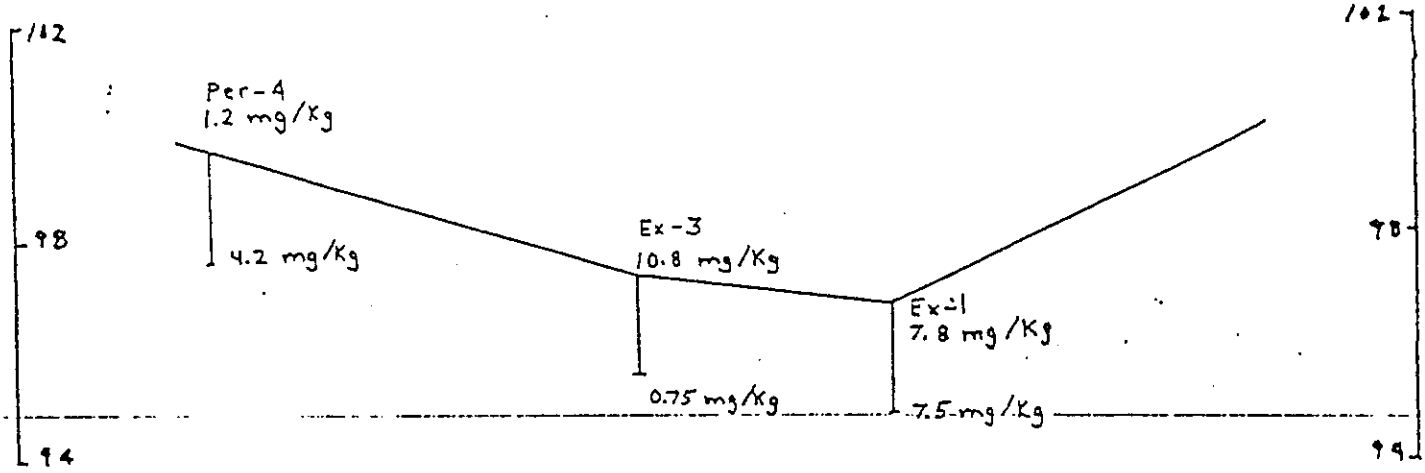
EXCAVATION AREA CROSS SECTIONS

(SEE TABLES 3B & 3C)

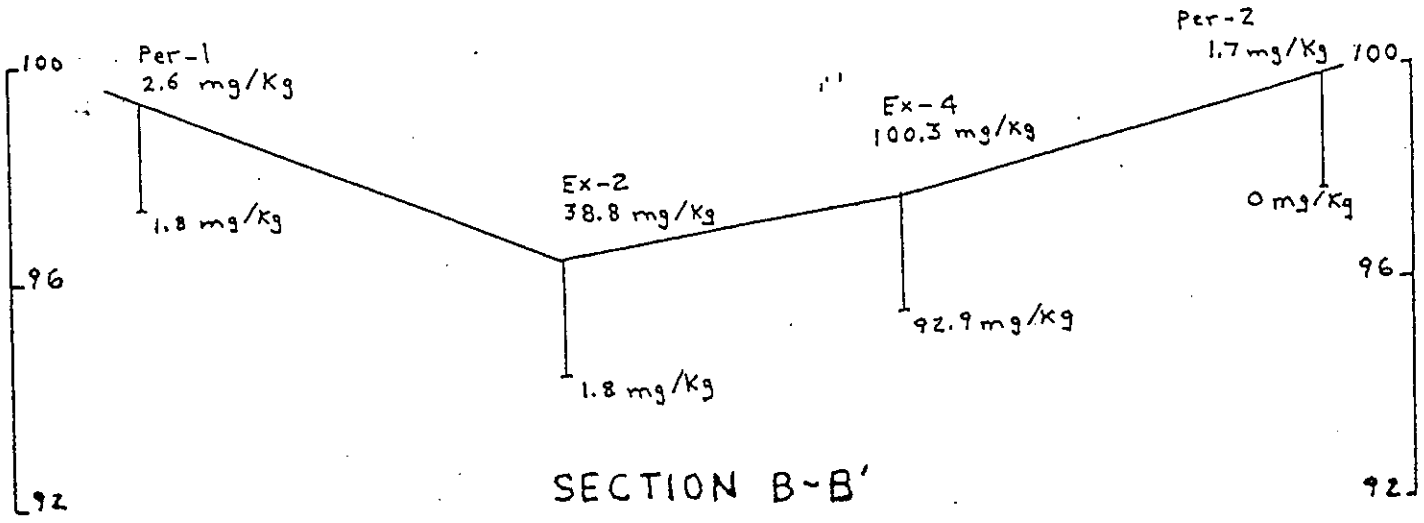


PLANT BUILDING

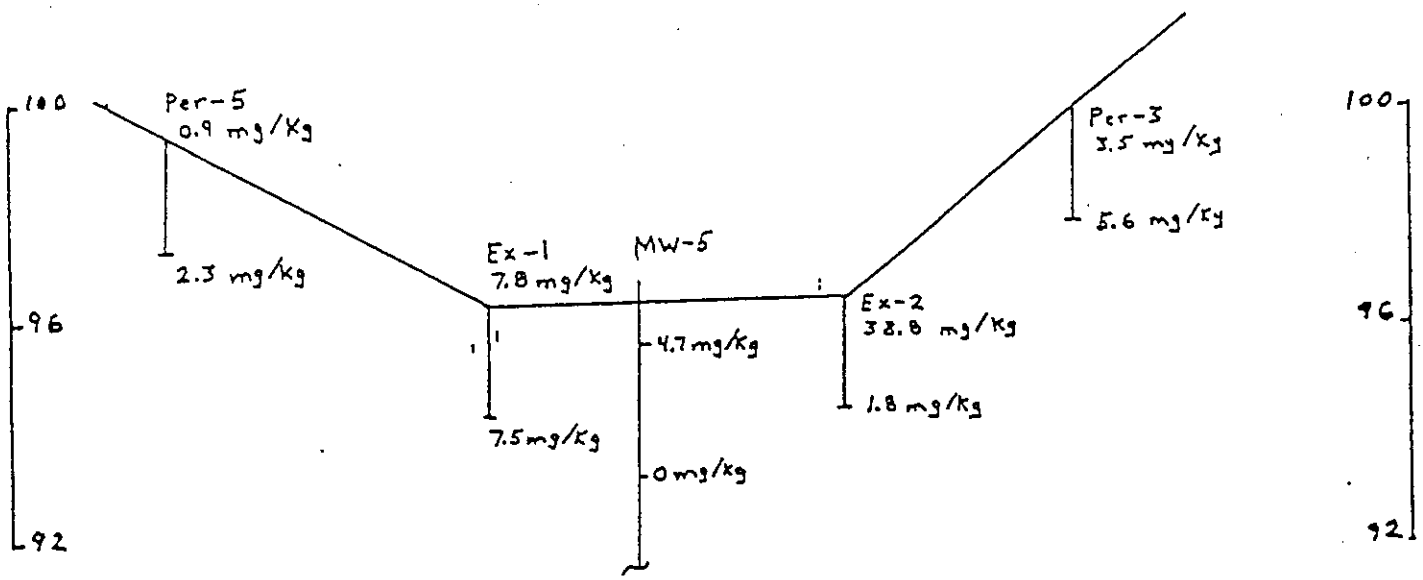
FIGURE #4



SECTION A-A'



SECTION B-B'



SECTION C-C'

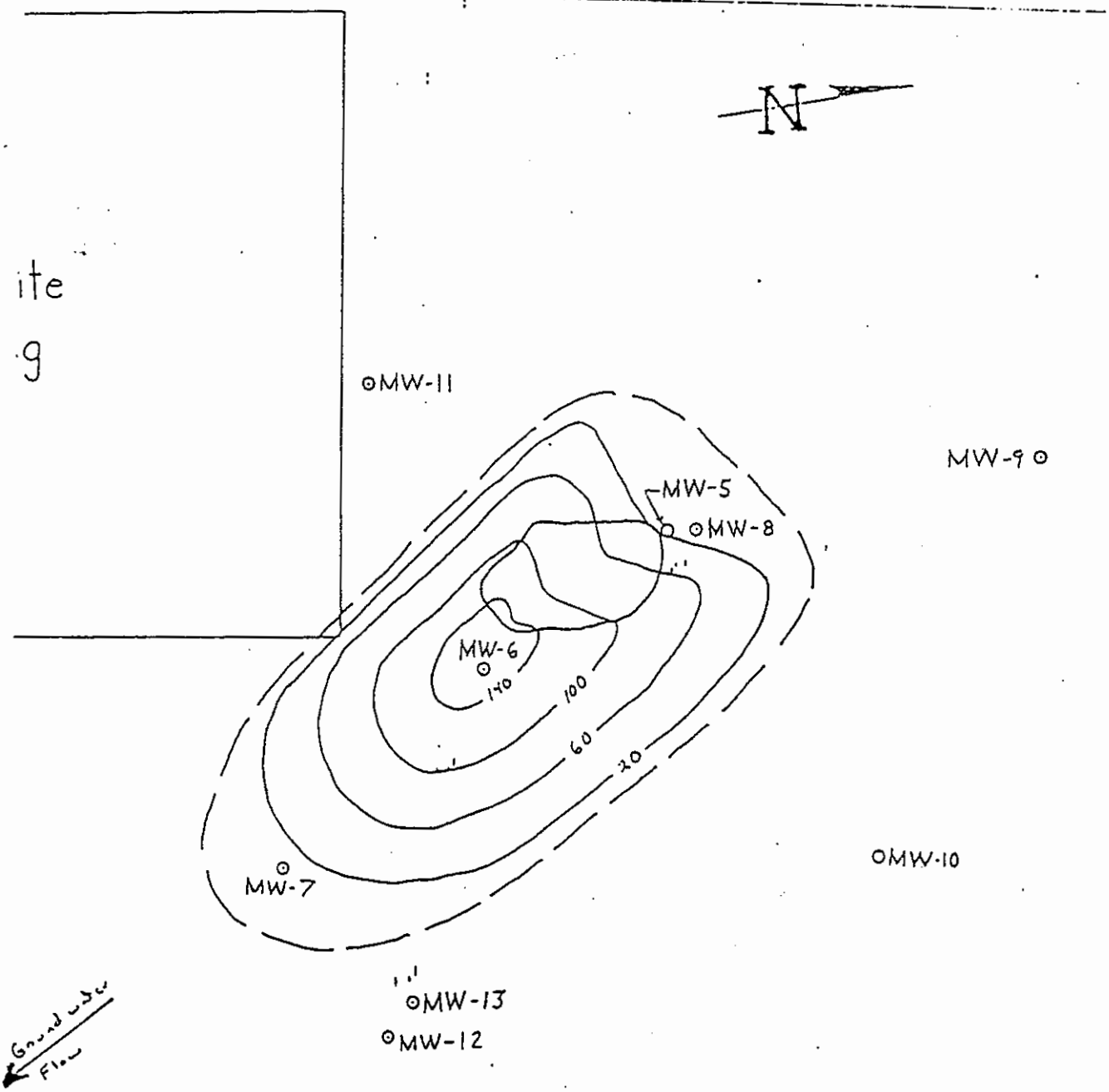
FIGURE #4 CONT.

SCALE: 1" = 16.5' HOR
1" = 3.3' VER

Pole-Lite

Groundwater Plume

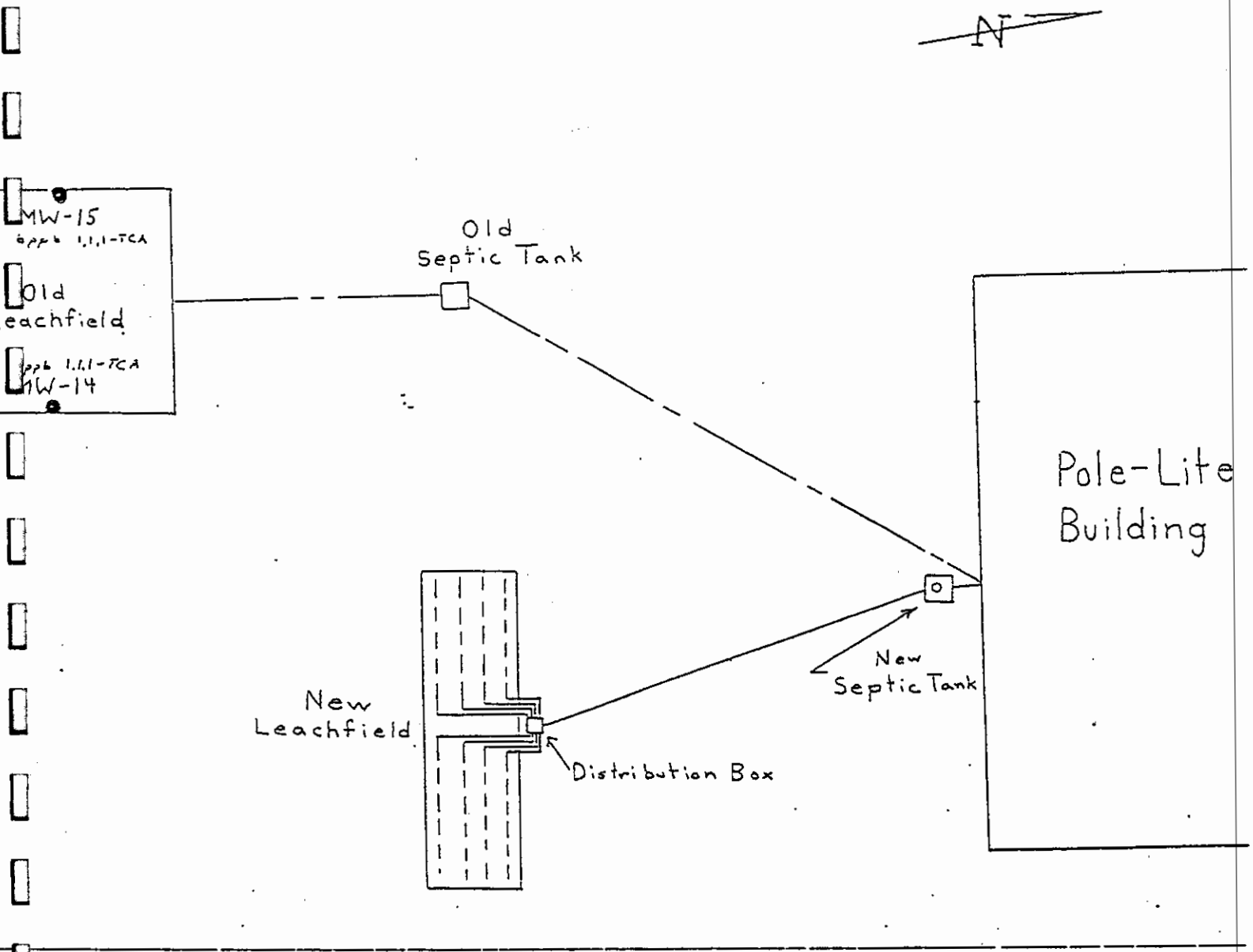
Total Organics (ppm)



APPROX. MIGRATION = $\frac{100 \text{ ft}}{13 \text{ yr}}$

= 7.7 ft/yr

FIGURE #5



Pole-Lite IRM #3

FIGURE #6

ADMINISTRATIVE RECORD

INDEX

FOR

POLE-LITE INDUSTRIES, INC.

ADMINISTRATIVE RECORD INDEX

1. "Remedial Investigation/Feasibility Study Report", by: Adirondack Environmental Associates, Inc., March 1991.

2. "Pole-Lite Industries Site Update" (Septic System Evaluation and Plan for IRM #3), by Lincoln Applied Geology, Inc., July, 1990).

3. Residential Well Sample Results, by: NYS Department of Health, April, 1990.

4. "Hydrogeological Evaluation of the Storage Area at Pole-Lite Industries, Inc.", by: Malcolm Pirnie, Inc., September, 1988.

5. "Addendum to the Hydrogeology Evaluation of the Storage Area at Pole-Lite Industries, Inc.", by: Malcolm Pirnie, Inc., September, 1988.

6. "Report of Subsurface Investigation and Phase I Environmental Analysis", by: Atlantic Testing Laboratories, September, 1987.

7. Order on Consent (Index #T111886), signed into effect on February 2, 1987 by the NYSDEC Commissioner.

8. Industrial Hazardous Waste Management Act Inspection Form, by: NYSDEC for December, 1986 inspection.

9. "Supplemental Phase II Remedial Investigation", by: Malcolm Pirnie, Inc., September, 1986.

10. Industrial Hazardous Waste Management Act Inspection Form, by: NYSDEC for March, 1986 inspection.

11. Letter to Pole-Lite citing deficiencies observed during the June 30, 1985 inspection, by: Arthur Stemp (NYSDEC Spill Response).

12. Pole-Lite Calculation File contains calculations used in the evaluation of the site and validation of reported calculations, by: NYSDEC.

13. Pole-Lite Reference Material File contains information and data used in the calculation and evaluation of the site, collected from numerous publications.