REPORT

SITE CHARACTERIZATION STUDY
LOWVILLE FACILITY

NEW YORK STATE PESTICIDE STORAGE SITES PROJECT
CONTRACT NO. D001889

New York State Department of Environmental Conservation
Region 6, Lewis County
Albany, New York

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6723 Towpath Road
Syracuse, New York 13214
(315) 446-9120

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Introduction

1.0 - Introduction

1.1 General

This report presents the results of the Site Characterization Study conducted at the New York State Department of Environmental Conservation (NYSDEC) Lowville Pesticide Storage site in Lowville, Lewis County (NYSDEC Region 6), New York (see Figure 1). The Lowville Pesticide Storage site is one of six pesticide storage sites operated by the State of New York during the early 1970s through the late 1980s. Four of the six pesticide storage sites were completely remediated by the NYSDEC by the end of 1992. The fifth site, the Three Rivers Pesticide Storage site is located in Three Rivers, Onondaga County (NYSDEC Region 7), New York and will be completely remediated by the end of 1993. The completion of remedial activities at the Lowville Pesticide Storage site, by the end of 1994, will conclude the site remediation activities at all six pesticide storage sites.

The Site Characterization Study was performed in accordance with the Site Characterization Work Plan ("the Work Plan") submitted to the NYSDEC in September 1992; the Quality Assurance/Quality Control (QA/QC) Plan submitted to the NYSDEC by Blasland & Bouck Engineers, P.C. (Blasland & Bouck) in November 1988 in relation to the New York State Pesticide Storage Sites Project (Contract No. D001889); and the Health and Safety Plan (HASP) submitted to the NYSDEC by Blasland & Bouck as part of the Closure Plan for the Lowville facility in January 1990. The Work Plan presented a sampling program for the Lowville facility to determine the need, if any, for remedial action.

The Work Plan included the following components:

- Sampling and analysis of liquids in the 275-gallon underground storage tank (UST);
- Sampling and analysis of porous interior building materials within the storage building;

- Sampling and analysis of the water supply within the storage building; and

- Sampling and analysis of soils in the vicinity of the storage building.

The QA/QC Plan and the HASP provided guidelines and requirements for site investigation activities to assure consistent, high-quality data generation and to protect the health and safety of project personnel and the public.

1.2 Scope

This Site Characterization Report presents the following information:

- A review of the site investigation activities proposed in the Work Plan, a discussion of any variations from the Work Plan as a result of field conditions during project implementation, and a discussion of additional site investigation activities that were performed at the site (Section 2.0);

- A presentation of data collected during the Site Characterization Study and an interpretation of those data (Section 3.0); and

- Recommendations for remedial measures that should be implemented to remediate the site (Section 4.0).

The recommended remedial measures will be developed in design documents (plans and specifications) for implementation by a remedial contractor.

Field Sampling Activities

2.0 - Field Sampling Activities

2.1 General

The Lowville Site Characterization Study involved the implementation of a sampling program to:

- Determine if the 275-gallon UST has been impacted due to past site activities;
- Determine if the water supply in the storage building has been impacted due to past site activities;
- Supplement existing data to determine the degree of contamination within the storage building; and
- Determine the horizontal extent of soil contamination, if any, in the vicinity of the storage building.

This section of the report presents a detailed description of the field sampling implemented during the Site Characterization Study including a discussion of variations from the Work Plan. The field sampling program was conducted in three separate sampling events. The initial sampling consisted of the collection of all samples related to the approved Work Plan. This sampling was conducted on October 7, 1992 and the following personnel were present:

- Thomas Beschle, NYSDEC;
- James Reagan, NYSDEC;
- John Wainwright, NYSDEC;
- Michael Courtney, Blasland & Bouck; and
- Robert Rhoades, Blasland & Bouck.

Following the analysis of the samples collected during the Work Plan, it was determined that additional sampling of the water supply would be conducted to clarify the source of contamination in the water supply. The additional sampling was conducted on May 20, 1993 and the following personnel were present:

- Thomas Beschle, NYSDEC; and
- Richard Price, Blasland & Bouck.

Upon further review of the sampling data collected as part of the Work Plan, it was determined that two additional background composite soil samples would be collected to supplement the existing data. This additional background soil sampling was conducted on August 13, 1993 by Michael Courtney of Blasland & Bouck.

The sampling dates, times, procedures, and identification numbers pertaining to the sampling activities described above are presented in the field logs (Appendix A). Sample locations for all of the sampling activities are shown on Figures 2, 3, and 4. Results of these activities are presented in Section 3.0.

2.2 Underground Storage Tank Sampling

The approved Work Plan proposed the sampling and analysis of the contents of the existing 275-gallon UST (Figure 3) to determine if the UST had been impacted due to past pesticide handling and storage activities. In order to determine if the storage tank had been impacted due to past site activities, one liquid sample was to be collected from the UST. Additional sampling of the contents of the UST were to be conducted as per the judgement of the field engineer (e.g., if sludge or separate phase liquid is encountered).

The protocol for the collection, preservation, and transport of liquid samples presented in the approved Work Plan and in the QA/QC Plan were strictly followed. Specifically, the sampling of the liquid contents of the UST was performed by inserting a plastic disposable bailer through the 4 inch vent to the UST to

collect a sample. Following removal of the liquid, the liquid was directly transferred from the bailer to the appropriate sample container. The field engineer was unable to obtain a sample of the sediment from the base of the UST.

A thin layer of sediment appeared to be present in the bottom of the tank based on probing through the vent pipe. According to the Work Plan, sampling of sediments was to be performed based on the discretion of the field engineer. Attempts at retrieving a sediment sample through the 4-inch vent pipe were unsuccessful; therefore, a sediment sample was not collected.

Upon completing the sampling, the disposable sampling equipment was discarded as specified in the Work Plan. The liquid sample was submitted for laboratory analysis and were analyzed for the parameters established in the Work Plan. Analytical results are discussed in Section 3.0 - Presentation and Interpretation of Analytical Results.

2.3 Storage Building Sampling

2.3.1 Wipe Sampling

The wipe sampling program for the storage building was intended to provide an adequate number of sample locations to determine the extent of pesticide contamination, if any, within the storage building (Figure 3). The approved Work Plan proposed that four wipe samples be taken from the concrete floor in the main area, one wipe sample from the concrete floor in the storage room, one wipe sample from each of the four concrete walls, and one wipe sample from the concrete dock.

In accordance with the approved Work Plan, actual sample locations were determined in the field. Wipe samples were obtained from visibly stained surfaces which may indicate areas with the highest probability of impacts due to past site activities. One modification to the sampling approach specified in the Work

Plan was necessary. Specifically, a wipe sample was to be obtained from each of the four concrete walls within the building. However, the east wall (within the storage room) was constructed of fiberboard, and was scheduled to be core sampled (see Section 2.3.2). Therefore, the wipe sample (No. 129317) was relocated to an interior wall (see Figure 3).

The protocols for the collection, preservation, and transport of wipe samples in the Work Plan and in the QA/QC Plan were strictly followed. The wipe sampling was performed by saturating a 3-inch by 3-inch sterile gauze pad with hexane and then wiping the sample location. The gauze pad was then folded twice and placed into the sample container. The wipe samples were submitted for laboratory analysis and were analyzed for the parameters specified in the approved Work Plan. Analytical results are discussed in Section 3.0 - Presentation and Interpretation of Analytical Results.

2.3.2 Core Sampling

The approved Work Plan had proposed that the four fiberboard walls of the storage room be core sampled with one-inch diameter spade-type wood drill bits. The sampling was to consist of taking ¼-inch-deep fiberboard cores from each interior wall of the storage area, and compositing them in the field to yield one composite sample for analysis. Locations of the fiberboard wall core samples are shown on Figure 4.

As required, the core samples were collected from the fiberboard walls of the storage room in areas where visible staining was observed, and areas where pesticides were most likely stored. The discrete samples were taken from the fiberboard walls and were composited in the field to yield one composite sample for analysis.

The protocol for the collection, preservation, and transport of core samples presented in the Work Plan and the QA/QC Plan were strictly followed. A power drill with a one-inch disposable spade was used to obtain the required mass of materials from the fiberboard walls. The wood shavings were collected using

a disposable aluminum trough and then transferred into the sample container. Used drill bits and troughs were disposed of in accordance with the Work Plan. The composite sample was submitted for laboratory analysis and was analyzed for the parameters established in the approved Work Plan. Analytical results are discussed in Section 3.0 - Presentation and Interpretation of Analytical Results.

2.3.3 Water Supply Sampling

The approved Work Plan had proposed that the tap within the storage building be sampled to verify that the water supply had not been impacted due to past site activities. A ground water supply well exists directly outside of the building which is the source of water for the tap.

The sampling of the water supply consisted of attaching a hose to the tap at the sink and extending it out of the building. The faucet was then run for 10 minutes prior to sampling to purge the well piping. After the well piping was purged, the hose was removed from the tap at the sink and the sample was collected.

Analysis of the water sample collected from the tap within the storage building facility revealed concentrations of pesticide-related compounds that exceeded NYSDEC ground water standards (NYSDEC Division of Water Technical and Operation Series, 1.1.1, Ambient Water Quality Standards and Guidance Values). The presence of pesticide-related compounds in this sample could not be directly attributed to ground water conditions or the internal plumbing system. To better determine the source of the pesticides, Blasland & Bouck collected a second water sample from the wellhead (prior to the piping) within the facility. The purpose of this sample was to determine if ground water has been potentially impacted by ground water, or if the plumbing fixtures in the building have been impacted, or both.

The additional sampling of the water supply consisted of the collection of one ground water sample (129307R1) from the water supply wellhead within the facility. The sampling procedure consisted of first detaching the pump from the water supply system piping and collecting water level measurements. After the measurements were taken the piping and pump were reassembled and the water supply was purged

for 10 minutes by attaching a garden hose to the tap at the sink and extending it out of the facility. This purging procedure is consistent with that which was performed previously. Immediately after the water supply was purged the pump and piping were disassembled and a sample was collected using a peristolic pump and teflon tubing. The sample was collected from 3 feet above the bottom of the well. The pipe and pump were reassembled following the completion of sampling activities. The field log associated with the sampling is presented in Appendix A.

Sample collection, preservation, and transport were performed in accordance with the protocols for liquid samples presented in the Site Characterization Study Work Plan and Quality Assurance/Quality Control Plan (QA/QC). The liquid samples collected from the water supply (at the tap and the wellhead) were submitted to Aquatec, Inc. (Aquatec) for laboratory analysis. The water sample collected at the tap (129307) was analyzed for parameters established in the approved Work Plan and the water sample collected at the wellhead (129307R1) was analyzed for all of those same parameters with the exception of semi-volatile organics. The locations of both water supply samples are presented on Figure 3. Analytical results are discussed in Section 3.0 - Presentation and Interpretation of Analytical Results.

2.4 Soil Sampling

The soil sampling program was designed to determine if spills or other releases of pesticide waste occurred in the vicinity of the storage building during past site activities. The approved Work Plan for the Lowville facility proposed the collection of three soil samples from three 10-foot by 10-foot sample areas at depths of 0 to 6 inches below the root zone. This approach yields a total of three composite samples for analysis and was intended to investigate the areas of highest potential soil contamination which may have resulted from pesticide handling at the site. These areas are adjacent to the concrete dock on the east side of the building, and outside the manway on the west side of the building (Figure 2).

In addition, the Work Plan included obtaining background concentrations of pesticides and related compounds (if any) in the soils around the facility by collecting composite soil samples from two 10-foot by 10-foot sample areas at locations removed from likely areas of pesticide handling activities (Figure 2). Four discrete soil samples were to be collected from within each 10-foot by 10-foot background sample area at a depth of 0 to 6 inches below the root zone to form one composite sample for each 10-foot by 10-foot area, yielding two composite background samples for analysis.

Following the analysis of these soil samples, it was determined that two additional background composite soil samples (129319, 129320) would be taken from a minimum of 100 yards from the pesticide storage facility (Figure 2). These samples were collected to supplement the existing soil data and provide additional background concentrations from which to compare the results of the soil samples. The collection of this additional soil was performed in accordance with the approved Work Plan as described above.

The protocol for the collection, preservation, and transport of soil samples presented in the Work Plan and QA/QC Plan were strictly followed. The soil samples were collected as specified in the Work Plan by driving a split-spoon into the soil and collecting soils from 0 to 6 inches below the root zone. The root zone varied from 1 to 3 inches throughout the site. Sampling equipment coming into contact with soils during sampling was decontaminated in accordance with the protocols outlined in the Work Plan. The samples were composited, submitted for laboratory analysis, and were analyzed for the parameters specified in the Work Plan. The locations of the composite soil samples are presented on Figure 2. Analytical results are discussed in Section 3.0 - Presentation and Interpretation of Analytical Results.

2.5 Field Quality Assurance/Quality Control (QA/QC)

During the sampling program implemented for the Site Characterization Study, the November 1988 QA/QC Plan submitted by Blasland & Bouck for the New York State Pesticide Projects was followed. The QA/QC requirements included the following items:

- Documentation of all sampling activities and information in field notebooks;

- Identification of each composite sample by individual sample number;

- Completion of sample labels and chain-of-custody forms for all samples submitted to the laboratory for analysis;

- Preservation of all samples with ice;

- Utilization of new disposable equipment (i.e., drill bits, gloves and troughs) for each sample area; and

- Decontamination of non-disposal sample equipment (i.e., equipment that may have come in contact with any sample material at any time) after collecting each sample.

2.6 Field Health and Safety

The approved HASP was developed to provide protection to all personnel working at the Lowville Pesticide Storage site. The HASP was developed as part of the closure plan for the Lowville Facility by Blasland & Bouck in January 1990. The key components of the HASP that were utilized during the Site Characterization Study include the following:

- Maintaining Level D personal protection for workers during all outdoor field activities;

- Maintaining Level D personal protection for workers during all indoor field activities in the storage building; and

- Following proper personnel and equipment decontamination procedures.

All personnel protection measures and personnel/equipment decontamination procedures presented in the approved HASP were strictly followed during the Lowville site investigation.

Presentation and Interpretation of Analytical Results

3.1 General

This section of the report presents the analytical results obtained from the Site Characterization Study conducted at the Lowville facility. This data was generated to supplement the existing data gathered by the NYSDEC through previous limited sampling activities. Interpretation of the results presented herein will be utilized to further define the location and concentration of pesticide-related compounds previously established in the approved NYSDEC Closure Plan (Blasland & Bouck, January 1990), and to serve as the basis for remedial measure recommendations discussed in Section 4 of this report.

The samples collected during the Site Characterization Study, which includes all three sampling events, were submitted to Aquatec, Inc. (Aquatec) in Burlington, Vermont and analyzed for the parameters specified in the Work Plan. The analytical program conducted by Aquatec was supervised by Ms. Martha Roy of Aquatec.

Due to the concentration of several pesticide-related compounds, Aquatec had to reanalyze several samples at diluted concentrations. By diluting and reanalyzing certain samples, Aquatec generated more than one set of data for each sample. In order to determine the usefulness of the data, NYSDEC screened the data, which was used in determining the recommendations for remedial action. The analytical data is presented on Tables 1 and 2.

3.2 Underground Storage Tank

As described in Section 2.0, one liquid sample was collected from the existing 275-gallon UST. The liquid sample was analyzed at Aquatec, Inc. (Aquatec) for the following parameter groups:

- Target Analyte List (TAL) Metals, plus tin and boron - USEPA Method ILM02;
- Organochloride Pesticides - USEPA Method 8080 (including PCBs);
- Organophosphorous Pesticides - USEPA Method 8140;
- Chlorinated Herbicides - USEPA Method 8150;
- EP Toxicity - USEPA Method SW846; and
- Semi-volatile Organics - NYSDEC ASP 91-2 (Including ASP Category B Deliverables).

The liquid sample from the UST is designated as sample number 129306 (see Figure 3). The analytical results (Table 1) indicate detectable concentrations of semi-volatile organic compounds, chlorinated herbicides, and chlorinated pesticide compounds are present in the liquid contents of the UST. There were no organophosphorous pesticide compounds or PCB aroclors detected in the liquid in the UST. The analytical results from the sampling of the UST for the above mentioned compounds are presented on Table 1.

Extraction Procedure (E.P) Toxicity analysis for metals indicated that the liquid sample (129306) did not exceed the maximum contaminant levels (MCLs) and, therefore, does not exhibit the characteristic of toxicity as defined in 6NYCRR Part 371.31 (see Table 1).

In addition, the liquid contents of the UST were analyzed for TAL metals plus tin and boron. The results from this analysis reveal detectable concentrations of certain inorganics and have been presented on Table 2.

The conclusions and recommendations for remedial action of the UST are presented in Section 4.0 - Conclusions and Recommendations.

3.3 Storage Building

3.3.1 Wipe Sampling

Wipe samples were collected from the concrete floor in the main area, the concrete floor in the storage room, the north concrete wall, the south concrete wall, the west concrete wall, and the transite panel outside the storage room, as described in Section 2.0 (Field Sampling Activities). The wipe samples were analyzed at Aquatec, for the following parameter groups:

- Organochlorine Pesticides - USEPA Method 8080 (including PCBs);
- Organophosphorous Pesticides - USEPA Method 8140;
- Chlorinated Herbicides - USEPA Method 8150; and
- Semi-Volatile Organics - NYSDEC - ASP 91-2 (Including Category B Deliverables).

The wipe sampling locations and corresponding sample identification numbers are presented on the Site Characterization Sampling Plan (Figure 3). The results from the wipe sampling (see Table 1) indicate that detectable concentrations of chlorinated pesticides, chlorinated herbicides, organophosphorous pesticides, and/or chlorinated pesticides are present on the concrete floor, concrete walls, and transite panel outside the storage room. The wipe sample collected above the sink (129314) did not reveal detectable concentrations of any of the pesticide-related compounds.

The semi-volatile organic compound, butyl benzyl phthalate was detected in the wipe samples (Table 1) collected during the field activities. The blank sample (Table 1) also reveals a detectable level of this phthalate compound. Phthalates are not used in the manufacture of pesticide-related compounds, but are commonly used in the plastics industry. In addition, phthalate compounds are common laboratory and/or field contaminants and therefore the presence of this phthalate compound is likely due to laboratory and/or field contamination.

Additionally, a number of tentatively identified compounds (TICs) were detected during the laboratory analysis of semi-volatile organic compounds using Method ASP 91-2. The TICs that may be associated with past pesticide handling activities (as determined by NYSDEC data screening) have been presented on Table 1 to provide additional information regarding the presence of pesticide compounds. The TICs were not used as a basis of recommendations for remedial action.

The recommendations for remedial action of the concrete floor, concrete walls, and transite panel outside the storage room are presented in Section 4.0 - Conclusions and Recommendations.

3.3.2 Core Sampling

One composite core sample (129318) was collected from the fiberboard walls in the storage room as described in Section 2.0 - Field Sampling Activities. The composite core sample was analyzed at Aquatec for the following parameter groups:

- Organochlorine Pesticides - USEPA Method 8080 (including PCBs);
- Organophosphorous Pesticides - USEPA Method 8140;
- Chlorinated Herbicides - USEPA Method 8150; and
- Semi-Volatile Organics - NYSDEC - ASP 91-2 (Including ASP Category B Deliverables).

The composite core sample is designated as sample number 129318 (see Figure 3). The results from the composite core sample indicate detectable concentrations of semi-volatile organic compounds, chlorinated herbicides, organophosphorous pesticides, and chlorinated pesticides in the fiberboard walls in the storage room. There were no aroclors detected in the composite core sample. The analytical results for the composite core sample are presented on Table 1.

The recommendations for remedial action regarding the fiberboard walls in the storage room are presented in Section 4.0 - Conclusions and Recommendations.

3.3.3 Water Supply Sampling

A water supply sample (129307) was collected from the tap water supply within the storage room and another water supply sample (129307RI) was collected from the ground water supply well as described in Section 2.0 - Field Sampling Activities. The water supply samples were analyzed at Aquatec, for the following parameters:

- TAL Metals, plus tin and boron - USEPA Method ILM02;
- Organochlorine Pesticides - USEPA Method 8080 (including PCBs);
- Organophosphorous Pesticides - USEPA Method 8140;
- Chlorinated Herbicides - USEPA Method 8150; and
- Semi-Volatile Organics - NYSDEC - ASP 91-2 (Including ASP Category B Deliverables).

The initial results from the tap water supply sample indicated detectable concentrations of chlorinated herbicides and chlorinated pesticides. There were no semi-volatile organic compounds, organophosphorous pesticides, or PCB aroclors detected in the tap water supply sample. The analytical results for the above listed compounds are presented in Table 1.

In addition, the tap water supply sample was analyzed for Target Analyte List (TAL) metals plus tin and boron. The analytical data from this analysis reveals detectable concentrations of certain inorganic constituents and have been presented in Table 2.

A ground water supply well sample was analyzed for all the same parameters except for semi-volatile organics (no semi-volatile organic compounds were detected in the tap water supply sample). The results from the ground water supply well sample indicate that no detectable concentrations of pesticide- or

herbicide-related compounds were present in the ground water supply well sample. In addition, the ground water supply well sample revealed detectable concentrations of certain inorganic constituents. The analytical results for the above-listed parameters are presented in Tables 1 and 2.

The conclusions and recommendations for remedial action for the water supply are presented in Section 4.0 - Conclusions and Recommendations.

3.4 Soil Sampling

The soil sampling program consisted of collecting three composite soil samples and four background composite soil samples from 10-foot by 10-foot sample areas as described in Section 2.0 - Field Sampling Activities. The background samples were obtained during two sampling events; two samples (129301, 129302) were obtained near the pesticide storage building during the initial sampling event and the two additional background samples (129319, 129320) were obtained at remote locations on the Lowville site at a later date. All soil samples were submitted to Aquatec and analyzed for the following parameters:

- TAL Metals, plus tin and boron - USEPA Method ILM02;
- Organochlorine Pesticides - USEPA Method 8080 (including PCBs);
- Organophosphorous Pesticides - USEPA Method 8140;
- Chlorinated Herbicides - USEPA Method 8150;
- EP Toxicity - USEPA Method SW846; and
- Semi-Volatile Organics - NYSDEC - ASP 91-2 (Including ASP Category B Deliverables).

The soil sampling locations and corresponding sample identification numbers are presented on the Site Characterization Sampling Plan (Figure 2). Analysis of three of the four background soil samples revealed detectable concentrations of chlorinated pesticides; these included the two background soil samples taken near the storage building (129301, 129302), as well as one of the remote background soil samples taken near

a former nursery area toward the west end of the Lowville property (129320). Analysis of the three composite soil samples (129303, 129304, 129305) also revealed detectable concentrations of chlorinated pesticides at levels that are generally the same order of magnitude as the background soil sample levels. There were no semi-volatile organic compounds, chlorinated herbicides, organophosphorous pesticides, or PCB aroclors detected in any of the soil samples.

EP Toxicity analysis for metals indicated that both the background and soil samples did not exceed the maximum contaminant levels and, therefore do not exhibit the characteristic of toxicity as defined in 6 NYCRR Part 371.

In addition, all soil samples were analyzed for TAL metals plus tin and boron. The analytical data from this analysis reveals detectable concentrations of certain inorganic constituents in all of the soil samples. The analytical data for the above mentioned inorganics is presented on Table 2.

Comparison of the soil sampling results to the Recommended Soil Cleanup Objectives (NYSDEC, Technical and Administrative Guidance Memorandum No. 4046, November 1992) reveals that dieldrin occurs at concentrations greater than the cleanup objective of 0.044 mg/kg for this specific compound. Based on the background sample results, the occurrence of dieldrin would appear to be a site-wide condition and not related to specific practices associated with the pesticide storage building. Further, the site-wide occurrence of dieldrin is consistent with past site usage which included agricultural use and the likely application of pesticides.

The conclusions and recommendations for remedial action (if any) for the soils is presented in Section 4.0 - Conclusions and Recommendations.

Conclusions and Recommendations

4.0 - Conclusions and Recommendations

4.1 General

This section presents conclusions and recommendations for the Lowville Pesticide Storage Site. Conclusions and recommendations have been made on the basis of review of the data gathered during the Site Characterization Study and previous NYSDEC investigations.

4.2 Conclusions

The data was compared to the inventory of wastes (Appendix B) which was prepared by the NYSDEC Bureau of Wastes in March 1986 and is also included in the Closure Plan. Based on this comparison, it can be concluded that the various media sampled including residual liquids in the UST, wall and floor surfaces within the building, water supply, and site soils have been impacted by previous site activities.

Specifically, the following impacts were observed:

1. The liquid contents of the existing 275-gallon UST contain semi-volatile organic compounds, chlorinated herbicides, chlorinated pesticides, and inorganics.

2. The porous materials in the Lowville storage facility contain semi-volatile organic compounds, organochlorine pesticides, organophosphorous pesticides, chlorinated herbicides, and chlorinated pesticides. The porous materials were sampled through the collection of wipe samples and composite core samples.

3. The interior plumbing consisting of the piping and sink contain chlorinated pesticides based on water sampling conducted at the tap within the storage building.

4. Ground water does not contain chlorinated pesticides based on sampling of the ground water supply well.

5. Ground water does contain detectable levels of certain inorganic constituents which are likely due to naturally-occurring background conditions.

6. Pesticide-related (chlorinated pesticides) compounds were detected in site soils collected near the storage building. These compounds were also detected on the same order of magnitude in background soil samples taken both near and remote to the storage building.

4.3 Determination of Cleanup Levels

Cleanup levels are discussed in this subsection as they relate to potential remediation and are summarized on Table 3.

4.3.1 Underground Storage Tank

Remediation of the UST will consist of removal; therefore, no cleanup level will be established (see Section 4.4.1 - Underground Storage Tank Remediation for associated soil cleanup criteria).

4.3.2 Storage Building

Cleanup levels for pesticide-related compounds detected in building materials will be established to determine the appropriate remedial action for the Lowville facility. In lieu of a detailed Risk Assessment to determine the potential health risk associated with various exposure scenarios, the analytical detection limit can be used as a conservative basis for determining cleanup requirements.

The water supply comes from an on-site ground water supply well. Therefore, the cleanup levels for the water supply will be the ground water standards and guidance values in the NYSDEC Division of Water Technical and Operation Series (1.1.1) Ambient Water Quality Standards and Guidance Values.

4.3.3 Soils

Cleanup levels for pesticide-related compounds detected in site soils shall be based on background concentrations of pesticide-related compounds from soil samples taken both near and remote to the storage building area.

4.4 Recommendations

4.4.1 Underground Storage Tank Remediation

It is recommended that the UST and associated piping be removed in accordance with the approved Closure Plan. Removal of the UST and associated piping should not take place until after the concrete floor and walls have been washed so that all of the wash and rinse water can be collected in the UST.

As specified in the Closure Plan, the tank and pipe removal should take place in a four step process as follows:

Step 1 Remove and dispose of all liquids from the tank and piping. The liquid will be treated using an activated carbon system. The treated water will be stored and subsequently analyzed for residual pesticides. If non-detectable levels of pesticides are present, then the treated water will be discharged to a surface water discharge point under discharge criteria established by NYSDEC - Division of Water. The spent carbon filter material will be disposed of as a hazardous waste at an appropriate facility.

Step 2 Excavate and remove the tank and piping. Spoil from the excavation should be stockpiled on polyethylene sheeting or equivalent and covered pending the results of analytical data. The tank will be triple-rinsed and all wash and rinse water will be collected. The water will be processed through the on-site water treatment system and discharged as discussed above. The tank and pipe should be cut into sections or crushed on site prior to being removed as scrap.

Step 3 Collect soil samples for analysis from underneath the tank and piping as well as from the stockpiled spoil material. The soil sampling protocol presented in Appendix B of the Closure Plan will be followed. A minimum of two samples from under the tank (at a depth of 0 to 6 inches), two from under the piping (at a depth of 0 to 6 inches), and two from the stockpile should be collected. Analysis, with the shortest turn-around time possible, should be conducted for the following parameters:

- TAL Metals, plus tin and boron - USEPA Method ILM02;
- Organochlorine Pesticides - USEPA Method 8080 (including PCBs);
- Organophosphorus Pesticides - USEPA Method 8140;
- Chlorinated Herbicides - USEPA Method 8150;
- EP Toxicity - USEPA Method SW846; and
- Semi-Volatile Organics - NYSDEC - ASP 91-2 (Including ASP Category B Deliverables).

If soil samples from beneath the tank or piping, or from the spoil stockpile, indicate concentrations of pesticide-related compounds above background (or in the case of EP Toxicity, above regulated MCLs), a minimum of one to two feet of soil from the sides and bottom of the excavated area should be removed for disposal as a hazardous waste with the stockpiled material. The bottom of the excavation should then be resampled with analysis for the same group of parameters, and the process repeated until all levels are below background, or in the case of EP Toxicity results, below MCLs.

Step 4 The final step in the tank removal process will consist of plugging or sealing the floor drain and sink drain connections and backfilling the excavation with clean fill (stockpiled spoil can be used for backfill, if test results indicate that the material is not contaminated). It should be noted that the facility will not continue operation as a pesticide storage facility, and therefore, the tank and piping will not be replaced.

4.4.2 Storage Building Remediation

Based on the porous nature of the panels and wood framing that exist in the Lowville facility, surface cleaning techniques will not be effective in remediating these materials to meet the established cleanup criteria. Therefore, it is recommended that remediation consist of removal of all porous (non-concrete) interior walls and removal of all miscellaneous items (e.g., containers, drums, pallets) for disposal at a regulated disposal facility. Prior to commencing remediation, all overpack containers should be disposed of at a regulated disposal facility. In addition, it is recommended that the glass crusher be disposed of off-site at a regulated disposal facility.

Following the demolition and disposal of the porous (non-concrete) portions of the Lowville facility, the concrete surfaces should be cleaned and left in place according to the following two-step procedure, as outlined in the Closure Plan:

Step 1 Detergent wash the floor, walls, and dock using high pressure equipment followed by clean water rinse (all wash and rinse water would be collected for disposal at an off-site RCRA hazardous waste disposal facility or processed through an on-site water treatment system). This process should be repeated three times in its entirety.

Step 2 Seal the cleaned surfaces with a multi-layer epoxy coating containing an abrasive to provide traction. Installation of signs warning against any future disturbance or failure of this coating system should be provided.

The above cleaning activities should precede the UST remediation (Section 4.4.1) so that the existing floor drain and UST can be used for collection of wash and rinse waters. With respect to the storage building water supply, it is recommended that the sink and associated piping and appurtenances between the sink and the ground water supply well be removed during the closure of the facility. The piping should be cut into sections on-site and transported to a regulated facility for disposal. In addition, it is recommended that the water supply well not be used as a potable source of water.

4.4.3 Soil Remediation

Based on a comparison to background soil concentrations at locations near and remote to the pesticide storage building, it does not appear that soils have been grossly impacted by operations related to the storage and handling of pesticides in the storage building. In addition, the entire Lowville property is restricted by fencing and a locked gate, and access is controlled by NYSDEC. Based on these observations, no soil remediated is deemed necessary.

4.4.4 Ground Water Monitoring

The presence of dieldrin appears to be a site-wide condition and not related to pesticide handling and storage at the storage building. Based on this, it may be advisable that the site operators periodically sample and analyze a water sample from the on-site potable water supply source(s).

Tables

LOWVILLE PESTICIDE FACILITY, LOWVILLE, NEW YORK
SAMPLE ANALYTICAL RESULTS SUMMARY

TABLE 1

Sample Location	129301	129301 DL	129302	129302 DL	129303	129303 DL	129304	129304 DL	129305	129305 DL	129306	129306 DL	129307	129307 R1	129308	129308 DL	129308 I2	129309	129309 DL	129310	129310 DL	129310 I2	129310 REP	129310 REP DL	129310 REP I2	129311	129311 DL	129311 I2	129312	129312 DL	129312 I2	129313	129313 DL	129313 I2	129313 DL	129314	129314 I2	129315	129315 I2	129315 I2	129316	129316 I2	129317	129317 I2	129318	129318 DL	BLANK
Sample Type	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Water	Water	Water	Wipe	Wipe	Wipe	Wipe	Wipe	Wipe	Wipe	Wipe	Wipe	Wipe	Wipe	Wipe	Wipe	Wipe	Wipe	Wipe	Wipe	Wipe	Wipe	Wipe	Wipe	Wipe	Wipe	Wipe	Wipe	Wipe	Wipe	Wipe	Core	Core	Wipe
Units	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/L	ug/L	ug/L	ug/100cm²	ug/100cm²	ug/100cm²	ug/100cm²	ug/100cm²	ug/100cm²	ug/100cm²	ug/100cm²	ug/100cm²	ug/100cm²	ug/100cm²	ug/100cm²	ug/100cm²	ug/100cm²	ug/100cm²	ug/100cm²	ug/100cm²	ug/100cm²	ug/100cm²	ug/100cm²	ug/100cm²	ug/100cm²	ug/100cm²	ug/100cm²	ug/100cm²	ug/100cm²	ug/100cm²	ug/100cm²	ug/100cm²	ug/kg	ug/kg	ug/100cm²
Semi-Volatile Organic Compounds																																														
Analytes Performed	X		X		X		X		X		X	X	X	X	X			X		X			X			X			X			X			X		X			X		X		X	
Pentachlorophenol																																												90,000		
Butylbenzylphthalate															1,200			1,000		1,300			800			750			910			870			660		990			370		780				1,000
Diethylphthalate													18																																		
Tentatively Identified Compounds																																														
Dieldrin	170		100		300		430		210																																					
Ovex															88																																
4,4-DDD																		43																													
4,4-DDT																		150		40			17																							
DDT Isomer																		29																													
Parathion																				22																												
2,4,5-T Butoxethyl Ester																													48																		
Chlordane																		56																													
DMC (VAN)																		72																													
Malathion																																													1,486		
Organized Pesticides																																														
Analytes Performed	X		X		X		X		X		X	X	X	X	X			X		X			X			X			X	X		X			X					X		X		X	
2,4-D													1,100	0.35		6,900		4,600											4,600	5,100														3,100	3,900	
2,4,5-T													0.10	0.15				2,200								7,500			1,800														1,600		810		250	460	
2,4,5-TP																		1,000																													
Dicamba																																												9,100			280		
Dichloroprop																																																
Organo Phosphorous																																															
Analytes Performed	X		X		X		X		X		X	X	X	X	X		X	X		X	X	X	X	X	X	X		X	X		X	X	X	X	X	X		X	X	X	X	X	X	X	
Diazinon																										240		190																			
Malathion																		900							4,300	3,100		2,100	490		420	38,000	19,000	16,000	17,000									1286	1486	
Ethoprophos																		300		59,000	63,000	66,000	19,000	22,000	21,000	680		560	410		120	430		370											
Methyl Azinphos																		690																													
BP Spectra	ND		ND		ND		ND				ND	ND	ND		ND																																
Analytes Performed	X		X		X		X		X		X	X	X		X																															
Total Amidines	ND		ND		ND		ND				ND	ND	ND		ND			ND		ND						ND			ND			ND										ND		NO		ND		
Analytes Performed	X		X		X		X		X				X	X	X	X		X		X						X			X			X			X		X			X		X		X	
Chlorinated Pesticides																																															
Analytes Performed	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X		X	X		X	X		X	X		X	X		X		X			X		X	X	
Lindane (g-BHC)													0.14		530	740		2,700		820	1,050		700	1,400		480	520		920			220											3,010	3,100	
Heptachlor															40			710																													
Dieldrin	110	250	140	310	150	410	250	500	180				0.13		100			3,900					130																					17,000	26,000	
4,4-DDD	4.9		2.5		4.0		6.2		6.7				0.36					15,000	7,000	990			3,200																							
4,4-DDE	16		21		29		64		38						710	1,000		8,300	5,300	750	1,200		890			938																			
4,4-DDT	18		26	31	79	28	89	52	77	62					11,000	15,000		40,000	70,000	11,000	18,000		7,000	16,000		8,000	9,500		670	1,300		930	1,300				150	280		17				440		
T-Chlordane	280	350	200	450	230	580	300	650	160	280			0.38		2,900			140,000	82,000	5,100			1,900			3,900			640															8,500		
Methoxychlor															880								310			810																				
Aldrin																																															
Heptachlor Epoxide	5.9		3.3		4.8		8.0		3.6																																			1,200		
Endrin	8.5		6.7		4.9		10		6.7																																					
Endrin Ketone	6.4		5.8		5.1		8.7		5.8																																					
Endrin Aldehyde					3.6																																									

Notes:
DL = Diluted Sample
I2 = Sample reanalyzed due to laboratory error
REP = Replicated sample
ND = Not Detected

11/93 DS4-DJH
092307R/0920dn01.cdr

1. Highlighted values for chlorinated herbicides, organophosphorus pesticides and clorinated pesticides represent results best reflected anaite concentration for these samples where multiple analyses were performed.

2. All semivolatile TICs noted are pesticides. Some laborstory reported TICs have been intentionally ignored (e.g., those that are not pesticides, are method contaminants (aldol condensation products) and unknowns). Do not use SVOA TIC quantitation results where an analyte is reported by one of the other methods.

3. Water sample (129307R1) collected on May 20, 1993 by Blasland & Bouck, P.C.

4. Absence of data indicates no result was reported above a contract required quantitation limit determined using NYSDEC ASP for each method and analyte.

5. Soil samples, (129301-129305) water samples, (129306, 129307) wipe samples, (129308-129317) core samples, (129318) and blanks were collected on October 7, 1992 by Blasland & Bouck, P.C.

6. Aquatec Inc. performed the laboratory analysis for all of the samples.

7. Soil Samples (129319, 129320) were collected on August 13, 1993 by Blasland & Bouck, P.C.

8. See Figure 2, 3 & 4 for sample locations.

BLASLAND & BOUCK ENGINEERS, P.C.
ENGINEERS & SCIENTISTS

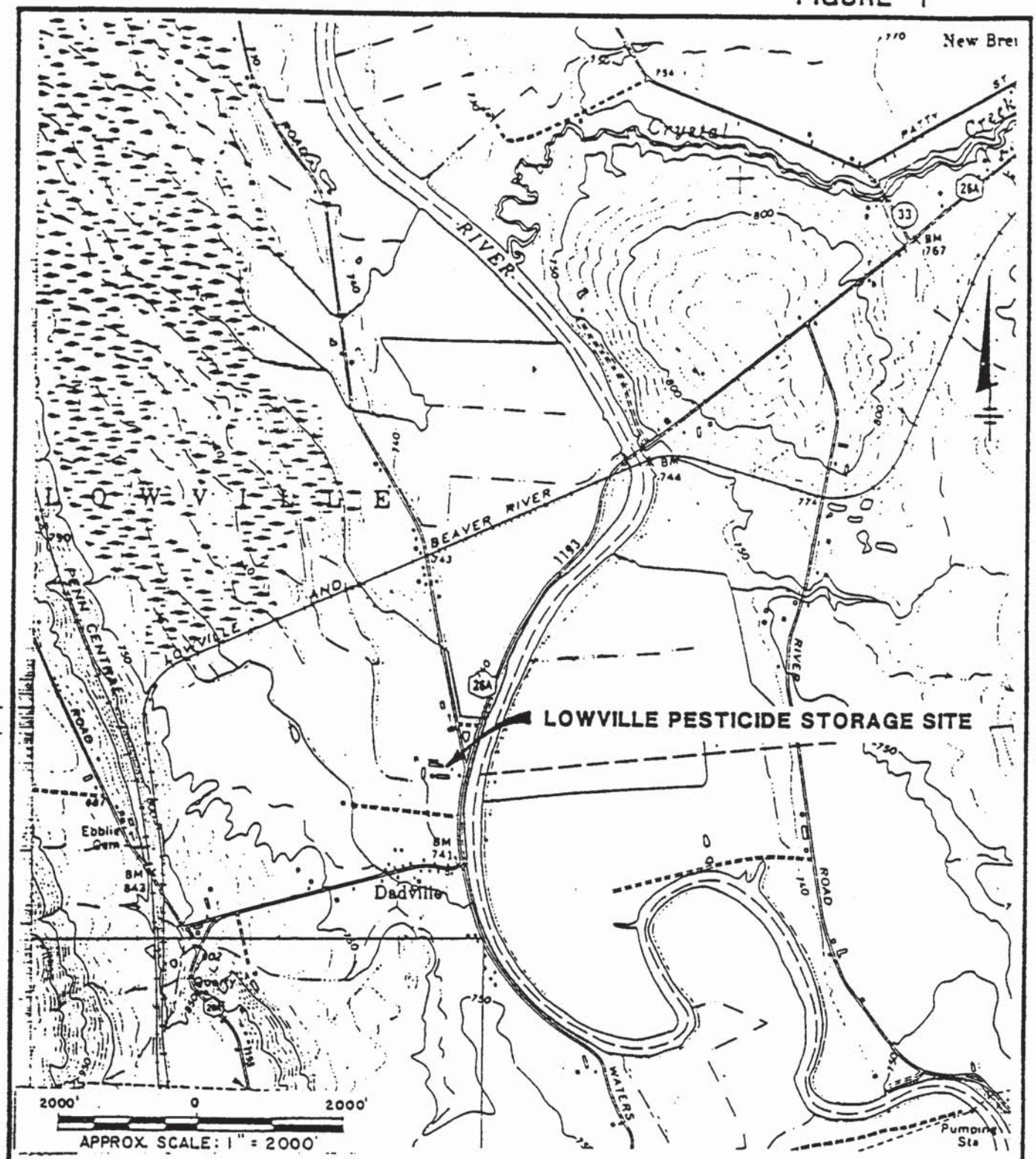
TABLE 2

LOWVILLE PESTICIDE FACILITY
LOWVILLE, NEW YORK
INORGANIC SAMPLE ANALYTICAL RESULTS SUMMARY

Sample Location	129301	129302	129303	129304	129305	129319	129320	129306	129307	129307R1
Sample Type	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Water	Water	Water
Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	ug/l	ug/l	ug/l
Aluminum	6370	6710	5580	6140	6770	7140	5790	1800	241	120B
Antimony	6U	5.2U	6U	7.2U	6.6U	7.1U	9.8U	37.6U	37.6U	29.9B
Arsenic	19.1	20.2	19.1	22.9	17.2	1.7	8.2	2.9B	2.8B	1.6U
Barium	14.7B	16.4B	16.8B	16.4B	20.5B	18.9B	16.5B	18.2U	42.8B	56.4B
Beryllium	0.36B	0.33B	0.31B	0.31B	0.37B	0.39B	0.31B	0.50U	0.50U	0.50U
Cadmium	0.41U	0.43B	0.42U	0.72B	0.46U	0.40U	0.55B	2.6U	14.6	19.3
Calcium	372B	1500	795B	1040	10800	736	831	36900	13300	13200
Chromium	3.8	3.4	3.1	3.2	5.8	4.6	3.5	3.3B	2.8B	2.4U
Cobalt	2.4B	2.0B	2.0B	1.8B	3.3B	2.8B	2.3B	3.7U	3.7U	4.8U
Copper	10.1	20.8	11.0	13.1	18.8	15.0	7.2	13.8B	74.0	4.7B
Iron	8530	9160	7730	8630	12800	10100	10200	10700	6240	3040
Lead	9	11.1	8.5	11.7	12.3	8.6	9.2	49.2N	22.0	186
Magnesium	639B	714	570B	483B	1410	693B	523B	2360B	1060B	1410B
Manganese	155	172	131	145	215	116	62.6	236	133	9.9B
Mercury	0.06B	0.06B	0.06B	0.06B	0.06B	0.04U	0.04U	0.22	0.05U	0.09U
Nickel	3.4B	2.7B	2.4B	2.4B	7.1	3.1B	2.5B	3.4U	13.0B	9.7B
Potassium	287B	166B	314B	241B	523B	245	156B	21200	5500	4190B

Figures

FIGURE 1



REFERENCES: USGS LOWVILLE QUAD. 1969

QUADRANGLE LOCATION

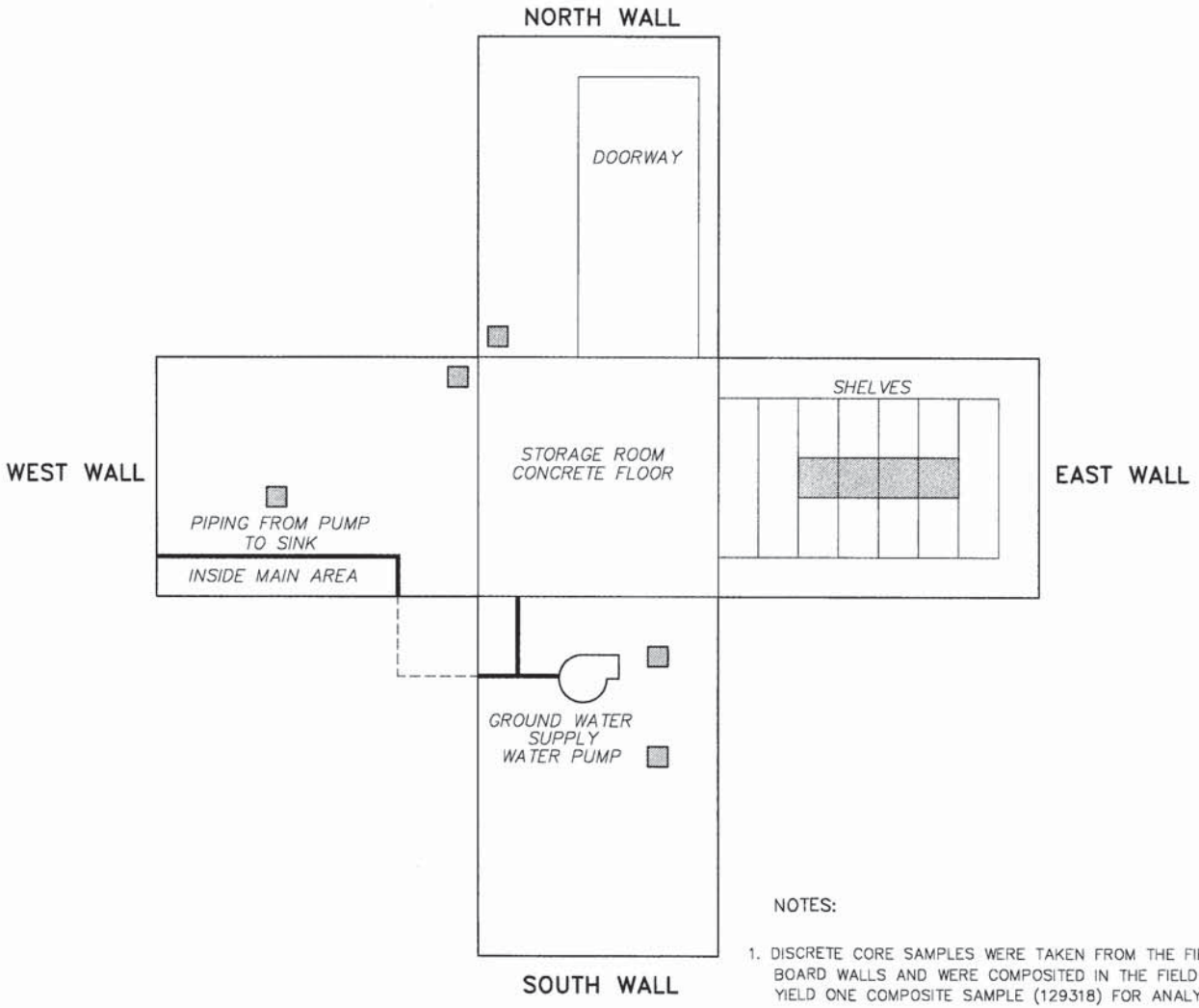
NYSDEC
LOWVILLE PESTICIDE STORAGE SITE

SITE CHARACTERIZATION

LOCATION MAP

JULY 1992
092.03.07

BLASLAND & BOUCK ENGINEERS, P.C.
ENGINEERS & GEOSCIENTISTS



LEGEND:

APPROXIMATE LOCATION OF CORE SAMPLES

PIPING FROM PUMP TO SINK

PIPE CONNECTION

APPROXIMATE SCALE: 1" = 3'

NOTES:

1. DISCRETE CORE SAMPLES WERE TAKEN FROM THE FIBER-BOARD WALLS AND WERE COMPOSITED IN THE FIELD TO YIELD ONE COMPOSITE SAMPLE (129318) FOR ANALYSIS.

2. SAMPLE (129318) WAS COLLECTED AND COMPOSITED IN THE FIELD ON OCTOBER 7, 1992 BY ROBERT W. RHOADES AND MICHAEL COURTNEY OF BLASLAND AND BOUCK.

BLASLAND & BOUCK ENGINEERS, P.C.
ENGINEERS & SCIENTISTS

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
LOWVILLE, NEW YORK

LOWVILLE PESTICIDE STORAGE SITE

FIBERBOARD CORE SAMPLING LOCATIONS

FIGURE **4**

10/93 SA- MRC
09203070\09203003.DWG

Appendices

APPENDIX A

SAMPLE COLLECTION NOTES

Louisville Pesticide Storage Site
October 7, 1992
RWR, MLC

Soil Samples

Sample number		
129301	@ 10:15	
129302	@ 10:40	Background
129303	@ 11:20	Background
129304	@ 11:40	West Side of Building
129305	@ 12:20	East Side of Building

MS/MSD collected at this location.

Soil SAMPLES COLLECTED
0 to 6" Below Root Zone.
Root Zone Varied From
1 to 3" at various locations.

Samples collected at locations shown on Work Plan Drawings.

Liquid Samples

Sample number

129306 Underground Storage Tank (UST)

1. Sample taken through 4" inlet port.
2. Sample Time 13:00
3. Tank is full of liquid. A thin layer of sediment is present in the bottom of the UST. Unable to obtain a sample of sediment.

Sample number

129307 Tap at sink

1. Water Supply Sample
2. Sample Time 13:50
3. Hose attached to tap and water supply piping purged for 10 minutes and then another 5 minutes prior to sampling.

Wipe Samples

Sample numbers

1. 129308 D 14:45
   taken from concrete floor in Southwest Corner of Storage Building

2. 129309 D 14:46
   taken from concrete floor in N.W corner

3. 129310 D 14:47
   taken from concrete floor in center of main area

4. 129311 D 15:45
   taken from concrete floor N.E corner

5. 129312 D 15:50
   ~~laundry dock~~

6. 129313
   [illegible]

7. 129314 D 15:55
   well cover sink

8. 129315 D 16:20
   wall / west side of Building

9. 129316 D 16:30
   main / west side of Building

10. 129317 D 16:40
    Document location was moved from the ~~counter~~ inside the storage room because there was no concrete wall. The wall was first swept. Samples was moved to opposite panel outside storage room.

- wipe samples were replaced to areas that were wiped / stained.

Core Sampling

Sample Number

129318 @ 17:15

Core Samples collected on staining and areas of high storage probability, concentrating on the west and east walls.

A Blank Sample was also submitted.

Personnel Present

NYSDEC
- Tom Beschle
- John Wainwright
- Jim Reagan

Blasland + Bouck
- Bill Shindler

MEMORANDUM

To: Files

From: R.J. Price

Re: NYSDEC - Lowville Site
Ground-Water Sampling

Date: 5/21/93

File No: 092.03 #3

cc: L.W. McBurney, P.E.
D.R. Lawrence

The following is a description of sampling activities at the NYSDEC Lowville Site.

- Arrived on site at 8:30.
- Drove back into town to buy ice for samples.
- Returned to site and prepared Isco pump for sampling.
- Tom Beshley (NYSDEC) arrived, unlocked building containing the well point and then left the area.
- Dissassembled piping to pump and recorded the following measurements:

  Well pipe - 1-3/4 inch diameter O.D., galvanized pipe

  - Top of pipe to floor - 2 feet
  - Top of pipe to water - 7.8 feet
  - Top of pipe to bottom - 14.5 feet

- Reassembled piping, primed pump and purged well for 10 minutes. Water was discharged onto the ground outside the building using a garden hose connected to the sink.
- Tom Beshley arrive back at the building.
- Dissassembled piping and took water measurement:

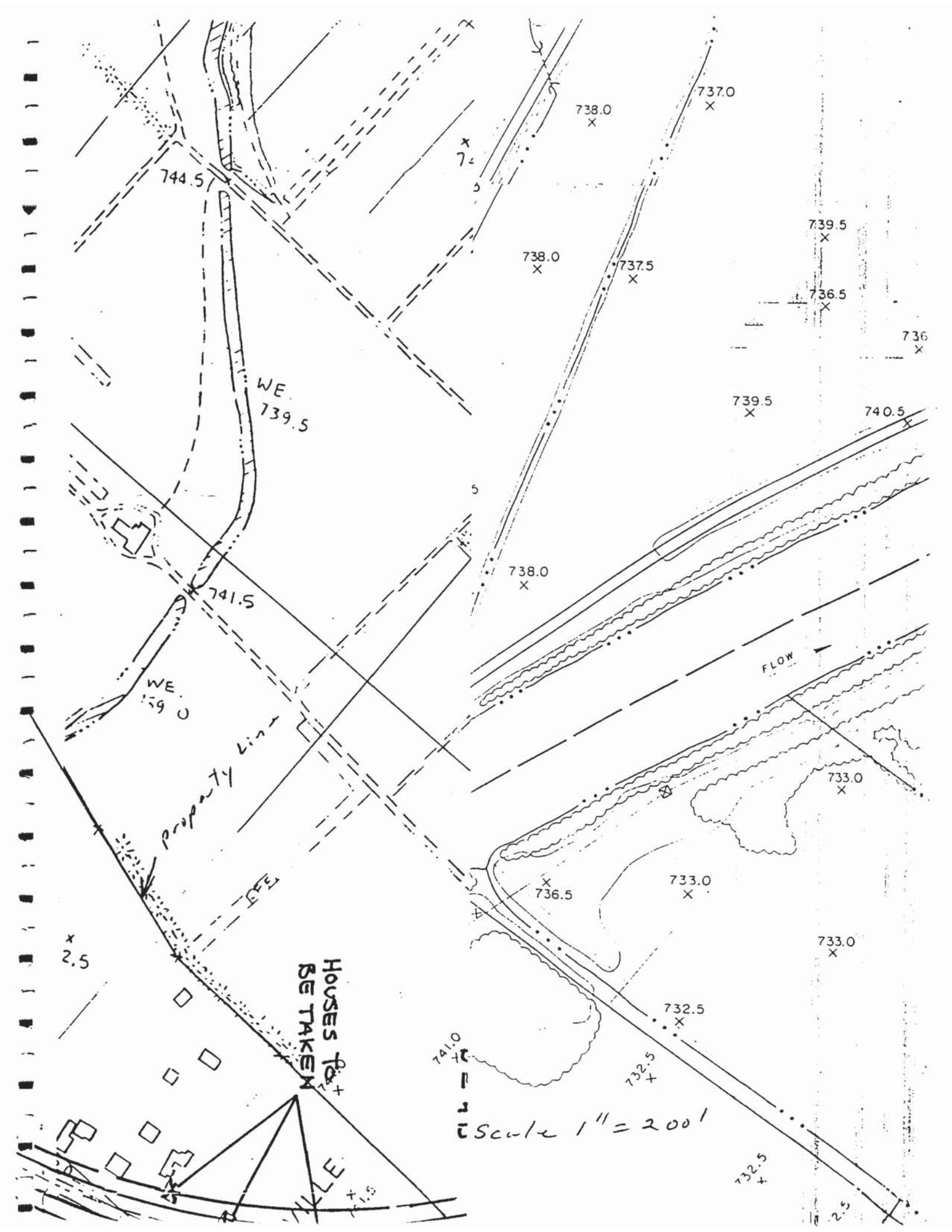
  - Top of pipe to water - 7.8 feet

- Sampled well water using a peristolic pump with surgical grade silicon pump tubing and teflon tubing. The samples were collected 3 feet above the bottom of the well.
- All samples were placed on ice.
- Sample area was picked up.
- Piping was reassembled and drained. Left in same condition as when I arrived.
- Left site.

BLASLAND, BOUCK & LEE
ENGINEERS & GEOSCIENTISTS

SUBJECT	PROJ. NO.	BY	DATE	SHEET
D MYSDEE LOWVILLE	0203	MLC	8/13/93	

ID	DATE	TIME	DESCRIPTION
129319	8/13/93	9:20	SANDY SOIL NEAR LOWVILLE CHURCH
129320	8/13/93	10:20	SANDY SOIL BEHIND PESTICIDE
MS/MSD	8/13/93	10:25	STORAGE SHED


744.5
738.0
737.0
739.5
738.0
737.5
736.5
736
739.5
740.5
WE
739.5
741.5
738.0
WE
739.0
property line
FLOW
733.0
736.5
733.0
733.0
732.5
741.0
732.5
732.5
2.5
2.5
HOUSES TO BE TAKEN
LE
LE
Scale 1" = 200'

APPENDIX B

INVENTORY OF ON-SITE WASTES

APPENDIX B

NYSDEC LOWVILLE PESTICIDE STORAGE FACILITY
INVENTORY OF PRESENT ON-SITE WASTES
(PREPARED IN MARCH 1986 BY NYSDEC BUREAU OF WASTES)

The following list is an inventory of contents of the present on-site pesticide waste at the Lowville facility.

1-1# Can Fruit Spray Captan 12.0%, Methoxclor 12.5%, Malathion 6.25%, Trichloroethanol 1.73%, Inert ingredients 67.02%
1-5# Coffee can (1/2 full) 36% sevin
1-4# Paper bag (1/2 full) chlordane
1-1# Container 5% chlordane dust (Agway)
6-1# Container 5% chlordane dust (Ortho)
2-1# Coffee cans (ea. 1/2 full) malathion old wetable powder
3-5# Paper bags (full) wetable malathion powder
1-3# Paper bag (2/3 full) 76% Ferban (Ferric dimethyldithiocarbonate)
3-1# Paper bags (full) Captan 50%, inert ingredient 50%
1-3.5 oz. Container (full) Bonide Poison Peanuts - Arsenictroxide 1.5%
1-4 oz. Container Paris Green - Copper Acetoarsenite 90%
1-1# Paper bag (1/2 full) Arsenate of lead - Metallic Arsenic 19.5%, Arsenic Pentoxide 30%, Trioxide 25%; Total Lead - Metallic Lead 58%;
Arsenic in water soluble - Metallic Arsenic 0.25%, Arsenic Pentoxide 0.38%; Total Arsenic Trioxide 0.30%
27-4 oz. Containers Black Leaf Poison Peanuts 0.3% stricknan
1-1# Can (1/2 full) Watkins DDT Powder 10% DDT
1-1# Can (2/3 full) Pratt's DDT Bulb Powder 5% DDT
6-1 Pint containers Ortho-klor 72; 72% chlodane
3-1 Quart containers Ortho-klor 44; 44% chlordane
4-1 Pint containers Ortho-klor 44; 44% chlordane
1-1/2 Pint container Ortho-klor 44; 44% chlordane
3-8 oz. containers d-con roach pruf 2% chlordane
1-1 Pint container (1/2 full) gulf spray 0.12% Pyrethrines, 0.06% Piperonyl Butoxide, 0.5% Methoxychlor
1-1/2 Pint container (full) carboryl 5%, methasystox - R 5%, kalthane 2%
1-1 Quart container Jaygol Diazianon no percentages listed
2-4 Quart containers Blackleaf 40 40% nicotene alkyloid
1-8 oz. container Blackleaf 40 40% nicotene alkyloid
5-1 Pint containers Pet-tox 100% DDT
1-1 Quart container Fly Jinx 5% DDT
7-1 Pint containers Watkins 5% DDT Spray
1-1 Quart container Watkins Fly & Moth Spray 90% Petro distill, Pyrethrins, Piperonyl Butoxide
2-1 Quart containers Watkins Roost Paint 93.5% Petro. distill., 5% Cyclohexanone, 1.5% Lindane
1-1 Quart container Ortho Triox 52.5% Sodium Arsenite
1-1 Quart container Ortho Triox 1.86% Triazene, 0.86% Pentachlorophenol, 0.8% other chlorinated phenols
1-1 3/4 Quart container Ortho Triox 1.86% Triazene, 0.68% Pentachlorophenol, 0.08% other chlorinated phenols
1-1 Pint container Ortho Weed B Gon 17.8% 2,4D; 8.4% Silvex

APPENDIX B

NYSDEC LOWVILLE PESTICIDE STORAGE FACILITY
INVENTORY OF PRESENT ON-SITE WASTES
(Cont'd.)
(PREPARED IN MARCH 1986 BY NYSDEC BUREAU OF WASTES)

1-1 3/4 Pint container Ortho Weed B Gon 17.8% 2,4D; 8.4% Silvex
1-1 1/2 Pint container Bonide (controls lawn weeds) 2,4D 33%
2-1/2 Pint containers Weedone Brush killer 32 2,4D 33%, 2,4,5T 10.8%, 2,4D 22.6%
1-1 Gallon can (2/3 full) insect fogger fuel DDT 5%, chlordane 3%, mineral seed oil 92%
1-1 Gallon container (full) logan iodine 18%, phosphoric acid 16%
1-1 Gallon glass container (1/3 full) lindane 20%
1-1 Gallon container GC-Thirty sodium metasilicate 3%, a-Benzyllammonium chloride 1.5%
2-1 Gallon container Watkins Insecticide, Dip and Disinfectant ingredients: coal tar neutral oils, soap and phenols
1-5 Gallon container (22 gallon) mixture of malathion and methoxychlor (25%)
1-1 Gallon container Dinoxol 2,4D 31.6%, 2,4,5-T 30.3%
1-1 Gallon container Weedone industrial brush killer 2,4,5-T 29.6%, 2,4D 30.9%
1-1 Gallon container Weedone brush killer 32 2,4,5-T 10.8%, 2,4D 22.6%
6-1 Gallon containers Weedone 2,4,5-T 59.1%
1 Old pressurized container 3% DDT
1-2# Paper bag (1 1/2# remaining) DDT Powders
1-4# Paper bag Bordeaux Mixture 27.5% copper content
1-20 Gallon container (1/2 full) overpacked from Bog River 2,4,D/2,4,5T Mixture (1% LT)

Aerosols

1-10 oz. container Ortho Household insect bomb Malathion 1%, Terperepolychlornate 1%, thiocyanoacetate .82%
4-7 oz. spray cans Black Jack spray disinfectant alcohol, several phenols

Probably DDTs

7-6 oz. glass containers Fly ded
1 unknown sample container
2-1 Quart Peterman's discover
1-1 Quart container (1/2 full) amber liquid (probable DDT)
1-2 oz. container stay away insect repellant
Stanley crow repellent (refined coal tar 94%)

11 empty containers
2-5 Gallon malathion containers
1-1 Gallon weedone 2,4,5-T containers
6-5 Gallon containers

NOTE: Pesticide material was removed from the Lowville facility on September 18, 1987 and March 27, 1990. The remaining pesticide material will be removed before remedial activities begin.