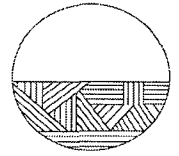


BELL ENVIRONMENTAL CONSULTANTS, INC.



Blue Mountain Plaza Shopping Center
WESTCHESTER COUNTY, NEW YORK

Site Management Plan

NYSDEC Site VCA Number: V00160-3

Prepared for:
Kurtsam Realty Corporation
P.O. Box 383
Croton-On-Hudson, NY 10529

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DEC 06 2013
Remedial Bureau C
Div of Environmental Remediation

Prepared by:

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Revisions to Final Approved Site Management Plan:

Revision #	Submitted Date	Summary of Revision	DEC Approval Date

November 2013

Disregard
via John B. Miller
NYSDEC

I Donald Bellu certify that I am currently a NYS registered professional engineer, I had primary direct responsibility for the implementation of the subject construction program, and I certify that the Remedial Work Plan (or Remedial Design or Plans and Specifications) was implemented and that all construction activities were completed in substantial conformance with the DER-approved Remedial Work Plan(or Remedial Design or Plans and Specifications).

The data submitted to DER demonstrates that the remediation requirements set forth in the Remedial Work Plan (or Remedial Design or Plans and Specifications) and all applicable statutes and regulations have been or will be achieved in accordance with the time frames, if any, established in the work plan(or Remedial Design or Plans and Specifications).

All use restrictions, institutional controls, engineering controls and/or any operation and maintenance requirements applicable to the site are contained in an environmental ~~easement created and recorded pursuant to ECL 71-3605~~ and that any affected local governments, as defined in ECL 71-3603, have been notified that such easement has been recorded.

A Site Management Plan has been submitted for the continual and proper operation, maintenance, and monitoring of any engineering controls employed at the site including the proper maintenance of any remaining monitoring wells, and that such plan has been approved by DER.

Donald Bellu
Name (Print)

11/13/13
Date

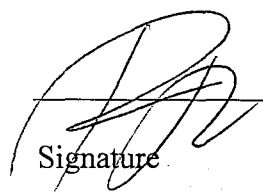

Signature

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SITE MANAGEMENT PLAN

1.0 INTRODUCTION AND DESCRIPTION OF REMEDIAL PROGRAM

1.1 INTRODUCTION

This document is required as an element of the remedial program at Blue Mountain Plaza Shopping Center (hereinafter referred to as the "Site") under the New York State (NYS) Voluntary Cleanup Program (VCP) administered by New York State Department of Environmental Conservation (NYSDEC). The site was remediated in accordance with Voluntary Cleanup Agreement (VCA) #VOO160-3, which was executed in March 1996.

1.1.1 General

Kurtsam Realty Corp. (KRC) entered into a VCA with NYSDEC to remediate the sub-slab of two tenants spaces (approximately 3,200 ft²) located in Peekskill, Westchester County, New York. This VCA required the Remedial Party, KRC, to investigate and remediate contaminated media at the Site. A figure showing the Site location and boundaries of this 5.4-acre site is provided in Figure 1. The boundaries of the Site are more fully described in the metes and bounds site description (Appendix 1) that is part of the Deed Restriction (Appendix 2).

After completion of the remedial work described in the Remedial Action Work Plan, some contamination was left in the subsurface at this site, which is hereafter referred to as '*remaining contamination*.' This Site Management Plan (SMP) was prepared to manage remaining contamination at the Site until the Deed Restriction is extinguished in accordance with ECL Article 71, Title 36. All reports associated with the Site can be viewed by contacting NYSDEC or its successor agency managing environmental issues in New York State.

This SMP was prepared by BELL Environmental Consultants, Inc., on behalf of KRC, in accordance with the requirements in NYSDEC DER-10 Technical Guidance for Site Investigation and Remediation, dated November 4, 2009, and the guidelines provided by NYSDEC. This SMP addresses the means for implementing the Institutional Controls (ICs) and Engineering Controls (ECs) that are required by the Deed Restriction for the Site.

1.1.2 Purpose

The site contains contamination left after completion of the remedial action. ECs have been incorporated into the Site remedy to control exposure to remaining contamination during the use of the Site to ensure protection of public health and the environment. A Deed Restriction granted to NYSDEC, and recorded with the Westchester County Clerk, will require compliance with this SMP and all ECs and ICs placed on the Site. The ICs place restrictions on site use, and mandate operation, maintenance, monitoring and reporting measures for all ECs and ICs. This SMP specifies the methods necessary to ensure compliance with all ECs and ICs required by the Deed

Restriction for contamination that remains at the Site. This plan has been approved by NYSDEC, and compliance with this plan is required by the grantor of the Deed Restriction and the grantor's successors and assigns. This SMP may only be revised with the approval of the NYSDEC.

This SMP provides a detailed description of all procedures required to manage remaining contamination at the Site after completion of the Remedial Action, including: (1) implementation and management of all ECs and ICs; (2) media monitoring; (3) operation and maintenance of all treatment, collection, containment, or recovery systems; (4) performance of periodic inspections, certification of results, and submittal of Periodic Review Reports; and (5) defining criteria for termination of treatment system operations.

To address these needs, this SMP includes three plans: (1) an EC/IC Plan for implementation and management of EC/ICs; (2) a Monitoring Plan for implementation of Site Monitoring; (3) an Operation and Maintenance Plan for implementation of remedial collection, containment, treatment, and recovery systems (including, where appropriate, preparation of an Operation and Maintenance Manual for complex systems).

This plan also includes a description of Periodic Review Reports for the periodic submittal of data, information, recommendations, and certifications to NYSDEC. It is important to note that:

- This SMP details the Site-specific implementation procedures that are required by the Deed Restriction. Failure to properly implement this SMP is a violation of the Deed Restriction, which is grounds for revocation of the Certificate of Completion (COC);
- Failure to comply with this SMP is also a violation of Environmental Conservation Law, 6NYCRR Part 375 and the VCA #V00160-3 for the Site, and thereby subject to applicable penalties.

1.1.3 Revisions

Revisions to this plan will be proposed in writing to NYSDEC's project manager. In accordance with the Environmental Easement for the Site, NYSDEC will provide notice of any approved changes to this SMP, and append these notices to the SMP that is retained in its files.

1.2 SITE BACKGROUND

1.2.1 Site Location and Description

The site is located in Peekskill, County of Westchester, New York and is identified as Section 42.8, Block 1, Lots 1 and 2 on the City of Peekskill Tax Map. The site is an approximately 5.4-acre area bounded by Englehard Corporation (a subsidiary of BASF) to the north and east, Welcher Avenue to the south, South Street to the west (see Figure 1). The boundaries of the Site are more fully described in Metes and Bounds (Appendix 1).

1.2.2 Site History

The site was vacant until sometime between 1941 and 1951, at which time a house was constructed. In the late 1950's, the Site was utilized as a minor league baseball field and a stock car race track. The house and all other structures were demolished in 1958 to accommodate the present-day shopping center. The dry cleaning establishment, the likely source of the onsite contamination, has reportedly been in the same location since the shopping center was constructed. The operator of the dry cleaning tenant space has changed numerous times since the facility was constructed. The following reports have been submitted to NYSDEC since the project started:

- February 1997 - Preliminary Assessment/Site Investigation Workplan
- November 1997 - Preliminary Site Assessment Work Plan
- May 1999 - Preliminary Site Assessment Report
- August 2001 - Preliminary Site Assessment Work Plan
- May 2002 - Supplementary Investigation Work Plan – Revision 2
- April 2003 - Remedial Investigation Report
- November 2003 - Remedial Investigation Report
- September 2005 - Remedial Investigation Report
- April 2007 - Interim Remedial Measures Workplan
- February 2008 - Site Management Plan

1.2.3 Geologic Conditions

Observations regarding the Site-specific geology are based on evaluations of soil type made during the UST excavation and the installation of both soil borings and monitoring wells. These observations indicate that sand is the predominant soil underlying the Site with layers of silty sand and sandy silt at various depths. These observations also indicate that there is a confining clay layer beneath the Site. Silty sand lies just above the clay layer. The clay layer was encountered during the installation of soil borings and Well MW-6 located behind the dry cleaning establishment at depths ranging from 29' to 30' below ground surface. The clay layer was encountered offsite on the Karta Container and Recycling, Inc. (Karta) property at 28.5' BGS in MW-7 and 21.0' BGS in MW-8. A geologic cross section is included as Figure 2.

Ground water was encountered at approximately 12' BGS on the eastern portion of the Site and at approximately 21' BGS on the western portion of the Site. This slope is most likely related to the significant change in topography located immediately west of the property. Based on ground water elevations collected during this investigation, ground water flows in a west-northwest direction, which is consistent with historical ground water flow data. Figure 3 presents an interpreted ground water contour map. Hydraulic conductivity on the Site is likely very high due to the predominantly sandy formation.

1.3 SUMMARY OF REMEDIAL INVESTIGATION FINDINGS

A Remedial Investigation (RI) was performed to characterize the nature and extent of contamination at the Site. The results of the RI are described in detail in Remedial Investigation reports referenced in Section 1.2.2. Generally, the RIs determined that chlorinated compounds are present in the ground water from historic discharges from an onsite dry cleaning tenant. No chlorinated compound soil contaminants were detected above NYSDEC RSCO.

Below is a summary of site conditions when the RI was performed. Initial testing was performed in 1998 with the final phase of the Remedial Investigation conducted in 2005. Since that time, additional ground water and air sampling has been periodically conducted. These recent results are included in the tables, figures, and text provided within this SMP.

Soil

No contaminants were detected in the soil above NYSDEC Recommended Soil Cleanup Objective (RSCO). Compounds detected can be attributed to historic fill in several areas of the Site.

Site-Related Groundwater

Based on the data collected to date, the chemicals detected in the ground water include select chlorinated volatile organic compounds and metals. The monitoring wells at the Site have very low recharge rates and can't be developed properly. Based on a data comparison of filtered and unfiltered ground water samples, the detected metals have been attributed to sediment trapped in the wells. Therefore, analysis of metals has been dropped from recent sampling requirements.

The chlorinated compounds detected in ground water have been present in onsite monitoring wells MW-2, MW-3, MW-4, and MW-6, as well former offsite well MW-7 (well was destroyed during regarding by offsite property owner). The compounds include tetrachloroethene, cis-1,2-dichloroethene, 1,2-dichloroethene, and trichloroethene. Trichloroethene has been detected at site, but only at concentrations below NYSDEC Ambient Water Quality Standards (AWQS). A summary of the data for the remaining three compounds is presented below:

Tetrachloroethene:

MW-2: 22-87 ug/l

MW-4: 5.1-15.6 ug/l

MW-6: 68.7-140 ug/l

Cis-1,2-Dichloroethene

MW-6: 1.3-7.1 ug/l

1,2-Dichloroethene

MW-2: Not Detected(ND)-18 ug/l

MW-4: ND-3 ug/l

MW-7: 23 ug/l

The highest concentrations of chlorinated volatile organic compounds are present in MW-6, located immediately downgradient of the dry cleaning tenant.

Site-Related Soil Vapor Intrusion

The results of the initial indoor air sampling conducted on April 7, 2005 indicate the presence of thirteen VOCs that are above NYSDOH background concentrations. A summary of historic air data is presented as Table 1 and Figure

4. Prior to installation of the sub-slab depressurization system, the following VOC concentrations were detected:

Indoor:

- Benzene was detected in excess of the NYSDOH indoor background of 5 mcg/m³ in the air sample collected from the first floor (Dry Cleaners) (5.43 mcg/m³).
- Chloroform was detected in excess of the NYSDOH indoor background of 4.3 mcg/m³ ranging from 4.88 mcg/m³ through 7.81 mcg/m³.
- Chloromethane was detected in excess of the NYSDOH indoor background of 1.0 mcg/m³ ranging from 1.40 mcg/m³ through 1.69 mcg/m³.
- Dichlorodifluoromethane was detected in excess of the NYSDOH indoor background of 1 mcg/m³ ranging from 2.57 mcg/m³ through 4.75 mcg/m³.
- MTBE was detected in excess of the NYSDOH indoor background of 4.3 mcg/m³ ranging from 5.05 mcg/m³ through 23.06 mcg/m³.
- N-hexane was detected above the NYSDOH indoor background of 3.6 mcg/m³ ranging from 3.88 mcg/m³ through 10.57 mcg/m³.
- Styrene was detected above the NYSDOH indoor background of 10 mcg/m³ in the air sample collected from sub-slab (Cleaners) (15.33 mcg/m³).
- Tetrachloroethene (PCE) was detected in excess of the NYSDOH indoor background of 10 mcg/m³ ranging from 12.88 mcg/m³ through 155.93 mcg/m³.
- Total Xylenes were detected in excess of the NYSDOH indoor background of 4.7 mcg/m³ ranging from 13.06 mcg/m³ through 129.77 mcg/m³.
- Trichloroethene (TCE) was detected in excess of the NYSDOH indoor background of 0.25 mcg/m³ ranging from 1.18 mcg/m³ through 3.98 mcg/m³.

Background:

- MTBE was detected in excess of the NYSDOH outdoor background of 1.0 mcg/m³ in the air sample collected from the rear of the building (10.09 mcg/m³).
- Toluene was detected in excess of the NYSDOH outdoor background of 6.1 mcg/m³ in the sample collected from the rear of the building (7.16 mcg/m³).
- Total Xylenes were detected in excess of the NYSDOH outdoor background of 0.74 mcg/m³ in the air sample collected from the rear of the building (8.38 mcg/m³).
- Trichlorofluoromethane was detected in excess of the NYSDOH outdoor background of 1.0 mcg/m³ in the air sample collected from the rear of the building (1.24 mcg/m³).
- 1,2,4-trimethylbenzene was detected in excess of the NYSDOH outdoor background of 1.0 mcg/m³ in the air sample collected from the rear of the building (1.03 mcg/m³).

The concentrations were detected in the dry cleaning space and the adjoining tenant space. Based on these concentrations, a sub-slab depressurization system was installed on November 13 and 14, 2007.

Underground Storage Tanks

Decommissioning and removal of a 1,000-gallon #2 fuel oil UST located directly behind the dry cleaners building was completed in accordance with NYSDEC approved May 2002 workplan on November 7, 2002. Four composite PE soil samples (PE-1, PE-1 (DUP), PE-2, and PE-3) were collected from the sidewalls and base of the excavation associated with the 1,000-gallon #2 fuel oil UST. Table 2 provides a summary of those compounds, which were detected in at least one sample. Figure 5 shows samples with concentrations in excess of NYSDEC RSCO. The compounds that exceed the soil cleanup objectives can be attributed to historic fill in several areas of the Site.

- Benzo(a)anthracene was detected at concentrations above the RSCO of 0.036 ppm in soil samples PE-1 (0.19 ppm), PE-1 DUP (0.19 ppm), PE-2 (0.26 ppm), and PE-3 (0.15 ppm).
- Benzo(a)pyrene was detected at concentrations above the RSCO (0.061 ppm) in soil samples PE-1 (0.22 ppm), PE-1 (DUP) (0.21 ppm), PE-2 (0.26 ppm), and PE-3 (0.15 ppm).
- Dibenz(a,h)anthracene was detected at concentrations above the RSCO (0.014 ppm) in soil samples PE-1 (0.046 ppm) and PE-2 (0.058 ppm).

1.4 SUMMARY OF REMEDIAL ACTIONS

The site was remediated in accordance with NYSDEC-approved Interim Remedial Measure Work Plan dated July 2, 2007. The remedial measure approved consisted of the installation of a sub-slab depressurization system beneath two tenant spaces in November 2007.

1.4.1 Sub-Slab Depressurization System

The sub-slab depressurization system (SSDS) was installed by RaData, Inc. of Flanders, NJ (RaData) on November 13 and 14, 2009. Two permanent SSDS were installed at the Site. One SSDS was installed in the dry cleaners and one SSDS was installed in the pizzeria. System locations can be found on the As Built Drawing RaData reports. After four-inch (4") holes were core drill cut through the concrete floor, about one cubic foot of soil was removed from beneath the slab using a shop vac. Soil was placed in a 55-gallon drum for future disposal. These holes were piped with three-inch (3") Schedule 40 PVC pipe routed through the window at the rear of the Mountain Dry Cleaners. The window was replaced using plywood. Split-ring hangers, clevis hangers, and two-hole straps were used to attach the pipe securely to the building. The exhaust of three-inch (3") Schedule 40 PVC pipe was routed above the roofline at that location. The vent fans were mounted directly to the PVC pipe slightly below the roofline using rubber couplers. Fans units were two (2) Dynavac GP 501 fans (70-140 Watts), maximum pressure of 4.00 Inches of Water, capable of evacuating 95 Cubic Feet per Minute at 1" static pressure. Conte Electric of Croton-On-Hudson, NY provided electrical service to the fan units. To provide constant evaluation of system performance, mini-magnahelic gauges were installed in a conspicuous location on the PVC pipe along with audio alarms, which sound when fan failure has occurred.

An additional SSDS was installed by RaData, Inc. of Flanders, NJ (RaData) on October 10 through 13, 2010. Two additional permanent SSDS were installed at the Site in the karate studio. System locations can be found on the As Built Drawing located in the RaData reports. After four-inch (4") holes were core drill cut through the concrete floor, about one cubic foot of soil was removed from beneath the slab using a shop vac. Soil was placed in a 55-gallon drum for future disposal. These holes were piped with three-inch (3") Schedule 40 PVC pipe routed through the window at the side and rear of the karate studio. The window was replaced using plywood. Split-ring hangers, clevis hangers, and two-hole straps were used to attach the pipe securely to the building. The exhaust of three-inch (3") Schedule 40 PVC pipe was routed above the roofline at that location. The vent fans were mounted directly to the PVC pipe slightly below the roofline using rubber couplers. Fans units were two (2) Dynavac GP 501 fans (70-140 Watts), maximum pressure of 4.00 Inches of Water, capable of evacuating 95 Cubic Feet per Minute at 1" static pressure. Conte Electric of Croton-On-Hudson, NY provided electrical service to the

fan units. To provide constant evaluation of system performance, mini-magnahelic gauges were installed in a conspicuous location on the PVC pipe along with audio alarms, which sound when fan failure has occurred.

Following system installation, sub-slab vacuum measurements were conducted using a digital Micro manometer to determine if a successful negative pressure field was obtained.

1.4.2 Remaining Contamination

There are no compounds in the soil present above NYSDEC RSCO. Low levels of chlorinated contaminants in the ground water remain onsite. This is most likely due to low levels of soil contamination possibly underneath the on-site structures.

2.0 ENGINEERING AND INSTITUTIONAL CONTROL PLAN

2.1 INTRODUCTION

2.1.1 General

Since remaining contaminated ground water and soil vapor exists beneath the Site, EC/ICs are required to protect both human health and the environment. This Engineering and Institutional Control Plan describes the procedures for the implementation and management of all EC/ICs at the Site. The EC/IC Plan is one component of this SMP and is subject to revision by NYSDEC.

2.1.2 Purpose

This plan provides:

- A description of all EC/ICs on the Site;
- The basic implementation and intended role of each EC/IC;
- A description of the key components of the ICs set forth in the Environmental Easement;
- A description of the features to be evaluated during each required inspection and periodic review;
- A description of plans and procedures to be followed for implementation of EC/ICs, such as the implementation of the Excavation Work Plan for the proper handling of remaining contamination that may be disturbed during maintenance or redevelopment work on the Site; and
- Any other provisions necessary to identify or establish methods for implementing the EC/ICs required by the Site remedy, as determined by NYSDEC.

2.2 ENGINEERING CONTROLS

2.2.1 Engineering Control Systems: SSDS and Asphalt Cover System

Procedures for operating and maintaining the SSDS are documented in the Operation and Maintenance Plan (Section 4 of this SMP) and can be found in Appendix 3. Procedures for monitoring the system are included in the Monitoring Plan (Section 3 of this SMP). The Monitoring Plan also addresses severe condition inspections in the event that a severe condition, which may affect controls at the Site, occurs.

The asphalt cover system at the Site will be routinely inspected and repairs will be made if necessary. The NYSDEC will be made aware of any repairs to the asphalt cover system.

2.2.2 Criteria for Completion of Remediation/Termination of Remedial Systems

Generally, remedial processes are considered completed when effectiveness monitoring indicates that the remedy has achieved the remedial action objectives identified by the decision document. The framework for determining when remedial processes are complete is provided in Section 6.6 of NYSDEC DER-10.

2.2.2.1 Sub-slab Depressurization System (SSDS)

The active SSDS will not be discontinued unless prior written approval is granted by NYSDEC. In the event that monitoring data indicates that the SSDS is no longer required, a proposal to discontinue the SSDS will be submitted by the property owner to NYSDEC and NYSDOH.

2.2.2.2 Monitored Natural Attenuation

Groundwater monitoring activities to assess natural attenuation will continue, as determined by NYSDEC, until residual groundwater concentrations are found to be consistently below NYSDEC standards or have become asymptotic at an acceptable level over an extended period. Monitoring will continue until permission to discontinue is granted in writing by NYSDEC. If groundwater contaminant levels become asymptotic at a level that is not acceptable to NYSDEC, additional source removal, treatment and/or control measures will be evaluated.

2.3 INSTITUTIONAL CONTROLS

A series of ICs is required to: (1) implement, maintain and monitor EC systems; and (2) prevent future exposure to remaining contamination by controlling disturbances of the subsurface contamination. Adherence to these ICs on the Site is required by the Environmental Easement and will be implemented under this SMP. These ICs are:

- Compliance with the Environmental Easement and this SMP by the Grantor and the Grantor's successors and assigns;
- All ECs must be operated and maintained as specified in this SMP;
- All ECs on the Controlled Property must be inspected at a frequency and in a manner defined in this SMP;
- Ground water and soil vapor monitoring must be performed as defined in this SMP; and
- Data and information pertinent to Site Management of the Controlled Property must be reported at the frequency and in a manner defined in this SMP.

ICs identified in the Environmental Easement may not be discontinued without an amendment to or extinguishment of the Environmental Easement. The site has a series of ICs in the form of site restrictions. Adherence to these ICs is required by the Environmental Easement. Site restrictions that apply to the Controlled Property are:

- The property may only be used for restricted commercial use provided that the long-term ECs and ICs included in this SMP are employed;
- The property may not be used for a higher level of use, such as unrestricted use, without additional remediation and amendment of the Environmental Easement, as approved by NYSDEC;
- All future activities on the property that will disturb remaining contaminated material must be conducted in accordance with this SMP;
- The use of the groundwater underlying the property is prohibited without treatment rendering it safe for intended use;

- The potential for vapor intrusion must be evaluated for any buildings developed in the area noted on Figure 1, and any potential impacts that are identified must be monitored or mitigated;
- Vegetable gardens and farming on the property is prohibited;
- Any soil excavation proposed at the Site would need to be approved by NYSDEC prior to implementation. This would include a written soil excavation plan which lays out the details of the excavation, especially in the areas where remaining soil contamination is present, that is covered by the Environmental Easement; and
- The site owner or remedial party will submit to NYSDEC a written statement that certifies, under penalty of perjury, that: (1) controls employed at the Controlled Property are unchanged from the previous certification or that any changes to the controls were approved by NYSDEC; and, (2) nothing has occurred that impairs the ability of the controls to protect both public health and the environment or that constitute a violation or failure to comply with this SMP. NYSDEC retains the right to access such Controlled Property at any time in order to evaluate the continued maintenance of any and all controls. This certification shall be submitted annually, or an alternate period of time that NYSDEC may allow, and will be made by an expert that NYSDEC deems acceptable.

2.3.1 Soil Vapor Intrusion (SVI) Evaluation

Prior to the construction of any enclosed structures located at the property, an SVI evaluation will be performed to determine whether any mitigation measures are necessary to eliminate potential exposure to vapors in the proposed structure. Alternatively, an SVI mitigation system may be installed as an element of the building foundation without first conducting an investigation. This mitigation system will include a vapor barrier and passive sub-slab depressurization system that is capable of being converted to an active system.

Prior to conducting an SVI investigation or installing a mitigation system, a work plan will be developed and submitted to NYSDEC and NYSDOH for approval. This work plan will be developed in accordance with the most recent NYSDOH "Guidance for Evaluating Vapor Intrusion in the State of New York". Measures to be employed to mitigate potential vapor intrusion will be evaluated, selected, designed, installed, and maintained based on the SVI evaluation, the NYSDOH guidance, and construction details of the proposed structure.

Preliminary (unvalidated) SVI sampling data will be forwarded to NYSDEC and NYSDOH for initial review and interpretation. Upon validation, the final data will be transmitted to the agencies, along with a recommendation for follow-up action, such as mitigation.

SVI sampling results, evaluations, and follow-up actions will also be summarized in the next Periodic Review Report.

2.4 INSPECTIONS AND NOTIFICATIONS

2.4.1 Inspections

Inspections of all remedial components installed at the Site will be conducted at the frequency specified in this SMP Monitoring Plan schedule. A comprehensive site-wide inspection will be conducted annually, regardless of the frequency of the Periodic Review Report. The inspections will determine and document the following:

- Whether ECs continue to perform as designed;
- If these controls continue to be protective of human health and the environment;
- Compliance with requirements of this SMP and the Environmental Easement;
- Achievement of remedial performance criteria;
- Sampling and analysis of appropriate media during monitoring events;
- If site records are complete and up to date; and
- Changes, or needed changes, to the remedial or monitoring system.

Inspections will be conducted in accordance with the procedures set forth in the Monitoring Plan of this SMP (Section 3). The reporting requirements are outlined in the Periodic Review Reporting section of this plan (Section 5).

If an emergency, such as a natural disaster or an unforeseen failure of any of the ECs occurs, an inspection of the Site will be conducted within five (5) days of the event to verify the effectiveness of the EC/ICs implemented at the Site by a qualified environmental professional as determined by NYSDEC.

2.4.2 Notifications

Notifications will be submitted by the property owner to NYSDEC, as needed, for the following reasons:

- 60-day advance notice of any proposed changes in site use that are required under the terms of the Voluntary Cleanup Agreement, 6NYCRR Part 375, and/or Environmental Conservation Law.
- Notice within 48-hours of any damage or defect to the foundations' structures that reduces or has the potential to reduce the effectiveness of other ECs and likewise any action to be taken to mitigate the damage or defect.
- Notice within 48-hours of any emergency, such fire, flood, or earthquake that reduces or has the potential to reduce the effectiveness of ECs in place at the Site, including a summary of actions taken, or to be taken, and the potential impact to the environment and the public.
- Follow-up status reports on actions taken to respond to any emergency event requiring ongoing responsive action shall be submitted to NYSDEC within 45 days and shall describe and document actions taken to restore the effectiveness of the ECs.

Any change in the ownership of the Site or the responsibility for implementing this SMP will include the following notifications:

- At least 60 days prior to the change, NYSDEC will be notified, in writing, of the proposed change. This will include a certification that the prospective purchaser has been provided with a copy of the Voluntary Cleanup Agreement, and all approved work plans and reports, including this SMP
- Within 15 days after the transfer of all or part of the Site, the new owner's name, contact representative, and contact information will be confirmed in writing.

2.5 CONTINGENCY PLAN

Emergencies may include injury to personnel, fire or explosion, environmental release, or serious weather conditions.

2.5.1 Emergency Telephone Numbers

In the event of any environmentally related situation or unplanned occurrence requiring assistance the Owner or Owner's representative(s) should contact the appropriate party from the contact list below. For emergencies, appropriate emergency response personnel should be contacted. Prompt contact should also be made to Donald Bello of Bell Environmental. These emergency contact lists must be maintained in an easily accessible location at the Site.

Emergency Contact Numbers

One Call Center:	(800) 272-4480
Poison Control Center:	(800) 222-1222
Pollution Toxic Chemical Oil Spills:	(800) 424-8802
NYSDEC Spills Hotline	(800) 457-7362

Contact Numbers

Donald Bello, Bell Environmental Project Manager	(973) 584-7777 x114
John Miller, NYSDEC Case Manager	(518) 402-9564
Fred Schwalb, Property Manager	(914) 271-5706

* Note: Contact numbers subject to change and should be updated as necessary

2.5.2 Map and Directions to Nearest Health Facility

Site Location: Blue Mountain Plaza Shopping Center, 20 Welcher Avenue, Peekskill, NY

Nearest Hospital Name: Hudson Valley Hospital Center

Hospital Location: 1980 Crompond Road, Peekskill, NY / Telephone: (914) 737-9000

Directions to the Hospital:

1. Make a left onto Welcher Avenue
2. Go under the Route 9 overpass and take the third left onto Washington Street
3. Continue on Washington Street for approximately 1.25 miles and make a right onto Central Avenue
4. Continue on Central Avenue (which becomes Park Street) to the end
5. Make a right onto Finch Street and a quick left onto Crompond Road. The hospital will be approximately 1.5 blocks on the left.

Total Distance: 3.31 miles / Total Estimated Time: 8 minutes / Map Showing Route from the Site to the Hospital can be found in Appendix 4.

2.5.3 Response Procedures

As appropriate, the fire department and other emergency response groups will be notified immediately by telephone of the emergency. The emergency telephone number list is found at the beginning of this Contingency Plan. The list will also be posted prominently at the Site and made readily available to all personnel at all times.

3.0 SITE MONITORING PLAN

3.1 INTRODUCTION

3.1.1 General

The Monitoring Plan describes the measures for evaluating the performance and effectiveness of the remedy to reduce or mitigate contamination at the Site, the soil cover system, and all affected site media identified below. Monitoring of other ECs is described in Chapter 4, Operation, Monitoring and Maintenance Plan. This Monitoring Plan may only be revised with the approval of NYSDEC.

3.1.2 Purpose and Schedule

This Monitoring Plan describes the methods to be used for:

- Sampling and analysis of all appropriate media (e.g., groundwater, indoor air, soil vapor, soils);
- Assessing compliance with applicable NYSDEC standards, criteria and guidance, particularly ambient groundwater standards and Part 375 SCOs for soil;
- Assessing achievement of the remedial performance criteria;
- Evaluating site information periodically to confirm that the remedy continues to be effective in protecting public health and the environment; and
- Preparing the necessary reports for the various monitoring activities.

To adequately address these issues, this Monitoring Plan provides information on:

- Sampling locations, protocol, and frequency;
- Information on all designed monitoring systems (e.g., well logs);
- Analytical sampling program requirements;
- Reporting requirements;
- Quality Assurance/Quality Control (QA/QC) requirements;
- Inspection and maintenance requirements for monitoring wells;
- Monitoring well decommissioning procedures; and
- Annual inspection and periodic certification.

Semi-annual monitoring of the performance of the remedy and overall reduction in contamination on-site will be conducted for the first four years. The frequency thereafter will be determined by NYSDEC. Trends in contaminant levels in air, soil, and/or groundwater in the affected areas, will be evaluated to determine if the remedy continues to be effective in achieving remedial goals. Monitoring programs are summarized in the Table below and outlined in detail in Sections 3.2 and 3.3 below.

Monitoring/Inspection Schedule

Monitoring Program	Frequency*	Matrix	Analysis
SSDS	Annual	Air	VOCs
Indoor Air	Annual	Air	VOCs
Monitoring Wells MW-1 thru MW-6	Annual	Water	VOCs

* The frequency of events will be conducted as specified until otherwise approved by NYSDEC and NYSDOH

3.2 MEDIA MONITORING PROGRAM

3.2.1 Groundwater Monitoring

Groundwater monitoring will be performed on a periodic basis to assess the performance of the remedy. The network of monitoring wells (Figure 1) has been installed to monitor both up-gradient and down-gradient groundwater conditions at the Site. The network of on-site wells has been designed based on the following criteria:

- Refer to Table 3 for monitoring well depths and units screened. Figure 2 provides a cross-section of the Site.
- Monitoring well construction details (Appendix 5).

The sampling frequency may be modified with the approval of NYSDEC. This Monitoring Plan will be modified to reflect changes in sampling plans approved by NYSDEC.

Deliverables for the groundwater monitoring program are specified below.

3.2.1.1 Sampling Protocol

All monitoring well sampling activities will be recorded in a field book and a groundwater sampling log presented in Appendix 6. Other observations (e.g., well integrity, etc.) will be noted on the well sampling log. The well sampling log will serve as the inspection form for the groundwater monitoring well network.

3.2.1.2 Monitoring Well Repairs, Replacement and Decommissioning

If biofouling or silt accumulation occurs in the on-site and/or off-site monitoring wells, the wells will be physically agitated/surged and redeveloped. Additionally, monitoring wells will be properly decommissioned and replaced (as per the Monitoring Plan), if an event renders the wells unusable.

Repairs and/or replacement of wells in the monitoring well network will be performed based on assessments of structural integrity and overall performance.

NYSDEC will be notified prior to any repair or decommissioning of monitoring wells for the purpose of replacement, and the repair or decommissioning and replacement process will be documented in the subsequent periodic report. Well decommissioning without replacement will be done only with the prior approval of NYSDEC. Well abandonment will be performed in accordance with NYSDEC's "Groundwater Monitoring Well Decommissioning Procedures." Monitoring wells that are decommissioned because they have been rendered unusable will be reinstalled in the nearest available location, unless otherwise approved by NYSDEC.

3.3 SITE-WIDE INSPECTION

Site-wide inspections will be performed on a regular schedule at a minimum of once a year. Site-wide inspections will also be performed after all severe weather conditions that may affect ECs or monitoring devices. During these inspections, an inspection form will be completed. The form will compile sufficient information to assess the following:

- Compliance with all ICs, including site usage;
- An evaluation of the condition and continued effectiveness of ECs;
- General site conditions at the time of the inspection;
- The site management activities being conducted including, where appropriate, confirmation sampling and a health and safety inspection;
- Compliance with permits and schedules included in the Operation and Maintenance Plan; and
- Confirm that site records are up to date.

3.4 MONITORING QUALITY ASSURANCE/QUALITY CONTROL

All sampling and analyses will be performed in accordance with the requirements of the Quality Assurance Project Plan (QAPP) prepared for the Site and listed below. Main components of the QAPP include:

- QA/QC Objectives for Data Measurement;
- Sampling Program:
 - Sample containers will be properly washed, decontaminated, and appropriate preservative will be added (if applicable) prior to their use by the analytical laboratory. Containers with preservative will be tagged as such.
 - Sample holding times will be in accordance with NYSDEC ASP requirements.
 - Field QC samples (e.g., trip blanks, coded field duplicates, and matrix spike/matrix spike duplicates) will be collected as necessary.
- Sample Tracking and Custody;
- Calibration Procedures:
 - All field analytical equipment will be calibrated immediately prior to each day's use. Calibration procedures will conform to manufacturer's standard instructions.

- The laboratory will follow all calibration procedures and schedules as specified in USEPA SW-846 and subsequent updates that apply to the instruments used for the analytical methods.
- Analytical Procedures;
- Preparation of a Data Usability Summary Report (DUSR), which will present the results of data validation, including a summary assessment of laboratory data packages, sample preservation and chain of custody procedures, and a summary assessment of precision, accuracy, representativeness, comparability, and completeness for each analytical method;
- Internal QC and Checks;
- QA Performance and System Audits;
- Preventative Maintenance Procedures and Schedules; and
- Corrective Action Measures.

3.5 MONITORING REPORTING REQUIREMENTS

Forms and any other information generated during regular monitoring events and inspections will be kept on file on-site. All forms, and other relevant reporting formats used during the monitoring/inspection events, will be: a) subject to approval by NYSDEC, and b) submitted at the time of the Periodic Review Report, as specified in the Reporting Plan of this SMP. All monitoring results will be reported to NYSDEC on a periodic basis in the Periodic Review Report. A letter report will also be prepared subsequent to each sampling event. The report will include, at a minimum:

- Date of event;
- Personnel conducting sampling;
- Description of the activities performed;
- Type of samples collected (e.g., sub-slab vapor, indoor air, outdoor air, etc.);
- Copies of all field forms completed (e.g., well sampling logs, chain-of-custody documentation, etc.);
- Sampling results in comparison to appropriate standards/criteria;
- A figure illustrating sample type and sampling locations;
- Copies of all laboratory data sheets and the required laboratory data deliverables required for all points sampled (to be submitted electronically in NYSDEC-identified format);
- Any observations, conclusions, or recommendations; and
- A determination as to whether groundwater conditions have changed since the last reporting event.

Data will be reported in hard copy or digital format as determined by NYSDEC. Monitoring program deliverables are summarized in the Table below.

Schedule of Monitoring/Inspection Reports

Task	Reporting Frequency*
Site Inspection	Annual
Periodic Review Report	Annual

* The frequency of events will be conducted as specified until otherwise approved by NYSDEC

4.0 OPERATION AND MAINTENANCE PLAN

4.1 INTRODUCTION

This Operation and Maintenance Plan (OMP) describes the measures necessary to operate, monitor and maintain the mechanical components of the remedy selected for the Site. This OMP:

- Includes the SSDS technical reports provided by RaData in Appendix 3.
- The SSDS will be annually inspected and maintained by Bell Environmental Consultants, Inc. and RaData. The results of the annual inspection will be documented in an Annual Inspection Report and submitted to NYSDEC.
- Will be updated periodically to reflect changes in site conditions or the manner in which the SSDS are operated and maintained.
- Since only Bell Environmental Consultants, Inc. and RaData will be responsible for maintaining the SSDS, the following sections are not applicable. Per agreement with the Site property owner, no one unfamiliar with the SSDS will be responsible for maintenance. All information related to the SSDS can be found in Appendix 3.

Information on non-mechanical ECs (i.e. soil cover system) is provided in Section 3 - Engineering and Institutional Control Plan. A copy of this OMP, along with this complete SMP, will be kept at the Site. This OMP is not to be used as a stand-alone document, but as a component document of this SMP.

Per the DER-31/Green Remediation plan, any future work at the Site will be in accordance with this NYSDEC program policy. Since the ECs and ICs are already in place, no changes will be made at this time. A copy of the program policy has been included as Appendix 7.

5. INSPECTIONS, REPORTING AND CERTIFICATIONS

5.1 SITE INSPECTIONS

5.1.1 Inspection Frequency

All inspections will be conducted at the frequency specified in the schedules provided in Section 3 Monitoring Plan and Section 4 Operation and Maintenance Plan of this SMP. At a minimum, a site-wide inspection will be conducted annually. Inspections of remedial components will also be conducted when a breakdown of any treatment system component has occurred or whenever a severe condition has taken place, such as an erosion or flooding event that may affect the ECs.

5.1.2 Inspection Forms, Sampling Data, and Maintenance Reports

All applicable inspection forms and other records, including all media sampling data and system maintenance reports generated for the Site during the reporting period, will be provided and submitted in paper and electronic format in the Periodic Review Report.

5.1.3 Evaluation of Records and Reporting

The results of the inspection and site monitoring data will be evaluated as part of the EC/IC certification to confirm that:

- EC/ICs are in place, are performing properly, and remain effective;
- The Monitoring Plan is being implemented;
- Operation and maintenance activities are being conducted properly and based on the above items; and
- The site remedy continues to be protective of public health and the environment and is performing as designed.

5.2 CERTIFICATION OF [ENGINEERING AND] INSTITUTIONAL CONTROLS

After the last inspection of the reporting period, a qualified environmental professional or Professional Engineer licensed to practice in New York State (depending on the need to evaluate engineering systems) will prepare the following certification:

For each IC or EC identified for the Site, I certify that all of the following statements are true:

- The inspection of the Site to confirm the effectiveness of the institutional and ECs required by the remedial program was performed under my direction;
- The institutional control and/or engineering control employed at this site is unchanged from the date the control was put in place, or last approved by the Department;

- Nothing has occurred that would impair the ability of the control to protect the public health and environment;
- Nothing has occurred that would constitute a violation or failure to comply with any site management plan for this control;
- Access to the Site will continue to be provided to the Department to evaluate the remedy, including access to evaluate the continued maintenance of this control;
- If a financial assurance mechanism is required under the oversight document for the Site, the mechanism remains valid and sufficient for the intended purpose under the document;
- Use of the Site is compliant with the environmental easement;
- The engineering control systems are performing as designed and are effective;
- To the best of my knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the Site remedial program [and generally accepted engineering practices]; and
- The information presented in this report is accurate and complete.
- I certify that all information and statements in this certification form are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law. I, [name], of [business address], am certifying as [Owner or Owner's Designated Site Representative] (and if the Site consists of multiple properties): [I have been authorized and designated by all site owners to sign this certification] for the Site.

The signed certification will be included in the Periodic Review Report described below.

- For each institutional identified for the Site, I certify that all of the following statements are true:
- The institutional control employed at this site is unchanged from the date the control was put in place, or last approved by the Department;
- Nothing has occurred that would impair the ability of the control to protect the public health and environment;
- Nothing has occurred that would constitute a violation or failure to comply with any site management plan for this control;
- Access to the Site will continue to be provided to the Department to evaluate the remedy, including access to evaluate the continued maintenance of this control;
- If a financial assurance mechanism is required under the oversight document for the Site, the mechanism remains valid and sufficient for the intended purpose under the document;
- Use of the Site is compliant with the environmental easement.
- The information presented in this report is accurate and complete.
- I certify that all information and statements in this certification form are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law. I, [name], of [business address], am certifying as [Owner or Owner's Designated Site Representative] (and if the Site consists of multiple properties): [and I have been authorized and designated by all site owners to sign this certification] for the Site.

- No new information has come to my attention, including groundwater monitoring data from wells located at the Site boundary, if any, to indicate that the assumptions made in the qualitative exposure assessment of off-site contamination are no longer valid; and

Every five years the following certification will be added:

- The assumptions made in the qualitative exposure assessment remain valid.
- The signed certification will be included in the Periodic Review Report described below.

5.3 PERIODIC REVIEW REPORT

A Periodic Review Report will be submitted to the Department every year, beginning eighteen months after the COC or equivalent document (e.g., Satisfactory Completion Letter, No Further Action Letter, etc.) is issued. In the event that the Site is subdivided into separate parcels with different ownership, a single Periodic Review Report will be prepared that addresses the Site described in Appendices 1 and 2 (Metes and Bounds). The report will be prepared in accordance with NYSDEC DER-10 and submitted within 45 days of the end of each certification period. Media sampling results will also be incorporated into the Periodic Review Report. The report will include:

- Identification, assessment and certification of all ECs/ICs required by the remedy for the Site;
- Results of the required annual site inspections and severe condition inspections, if applicable;
- All applicable inspection forms and other records generated for the Site during the reporting period in electronic format;
- A summary of any discharge monitoring data and/or information generated during the reporting period with comments and conclusions;
- Data summary tables and graphical representations of contaminants of concern by media (groundwater, soil vapor), which include a listing of all compounds analyzed, along with the applicable standards, with all exceedances highlighted. These will include a presentation of past data as part of an evaluation of contaminant concentration trends;
- Results of all analyses, copies of all laboratory data sheets, and the required laboratory data deliverables for all samples collected during the reporting period will be submitted electronically in a NYSDEC-approved format;
- A site evaluation, which includes the following:
 - The compliance of the remedy with the requirements of the Site-specific RAWP, ROD or Decision Document;
 - The operation and the effectiveness of all treatment units, etc., including identification of any needed repairs or modifications;
 - Any new conclusions or observations regarding site contamination based on inspections or data generated by the Monitoring Plan for the media being monitored;
 - Recommendations regarding any necessary changes to the remedy and/or Monitoring Plan; and
 - The overall performance and effectiveness of the remedy.

- A performance summary for all treatment systems at the Site during the calendar year, including information such as:
 - The number of days the system was run for the reporting period;
 - The average, high, and low flows per day;
 - The contaminant mass removed;
 - A description of breakdowns and/or repairs along with an explanation for any significant downtime;
 - A description of the resolution of performance problems;
 - A summary of the performance, effluent and/or effectiveness monitoring; and
 - Comments, conclusions, and recommendations based on data evaluation.

The Periodic Review Report will be submitted, in hard-copy format, to NYSDEC Central Office and Regional Office in which the Site is located, and in electronic format to NYSDEC Central Office, Regional Office and the NYSDOH Bureau of Environmental Exposure Investigation.

5.4 CORRECTIVE MEASURES PLAN

If any component of the remedy is found to have failed, or if the periodic certification cannot be provided due to the failure of an IC or EC, a corrective measures plan will be submitted to NYSDEC for approval. This plan will explain the failure and provide the details and schedule for performing work necessary to correct the failure. Unless an emergency condition exists, no work will be performed pursuant to the corrective measures plan until it is approved by NYSDEC.

TABLES

TABLE 1
AIR SAMPLING RESULTS SUMMARY - APRIL 7, 2005
PEEKSKILL PLAZA
PEEKSKILL, WESTCHESTER COUNTY, NEW JERSEY

Sample Designation: BELL Sample Number: Lab ID: Sample Date:	Sub-Slab (Cleaners) (AS-1) 9001 614456 4/7/2005			Basement Floor (Cleaners) (AS-2) 9002 614457 4/7/2005			First Floor (Cleaners) (AS-3) 9003 614458 4/7/2005			Rear of Building Outdoor (AS-4) 9004 614459 4/7/2005			Background EPA Database ¹		NYSDOH Database ²	
	PQL	CONC	Q	PQL	CONC	Q	PQL	CONC	Q	PQL	CONC	Q	Indoor ³	Outdoor ³	Indoor ³	Outdoor ³
VOLATILE ORGANIC COMPOUNDS (mcg/m³)																
Dilution Factor:		1			1			1			1					
Targeted VOCs Detected:																
Acetone		116.35			23.03			14.01			17.10		10. - 27.	ND - 6.7	NA	NA
Tetrachloroethene (PCE)		12.88			40.68			18.31			ND		1.7 - 11	0.82 - 5.9	< 1.5 - 10.	< 1.5 - <6.7
Dichlorodifluoromethane		2.82			2.57			2.97			ND		NA	1.6 - 1.7	< 1.0	< 1.0
1,2-Dichloroethene		ND			ND			ND			ND		NA	NA	NA	NA
Chloromethane		1.40			1.51			1.47			1.38		NA	1.3 - 1.5	< 1.0	< 1.0 - 1.4
2-Chlorotoluene		ND			ND			2.17			ND		NA	NA	NA	NA
Cyclohexane		0.89			ND			2.03			ND		NA	NA	NA	NA
Ethylbenzene		19.53			1.22			2.17			1.22		NA	NA	NA	NA
4-Ethyltoluene		4.91			2.16			1.77			ND		NA	NA	NA	NA
Trichlorofluoromethane		1.18			1.40			1.18			1.24		NA	1.1 - 1.2	< 1.0 - 3.8	< 1.0
Trichloroethene (TCE)		1.18			2.79			ND			ND		< 1.2 - 1.2	< 1.5	< 0.25	< 0.25
Isopropyl Alcohol		2.04			12.78			ND			ND		NA	NA	NA	NA
Methyl Butyl Ketone		ND			4.10			ND			ND		NA	NA	NA	NA
Methylene Chloride		5.21			2.64			2.71			ND		NA	1.1 - 6.3	< 3.0 - 5.6	< 1.0 - 3.8
4-Methyl-2-pentanone (MIBK)		2.74			ND			ND			ND		NA	NA	NA	NA
MTBE		7.21			3.60			23.06			10.09		NA	NA	< 1.0 - 4.3	< 1.0
n-Heptane		3.07			1.23			3.11			1.31		NA	NA	NA	NA
N-hexane		3.52			2.47			10.57			3.10		ND - 4.0	2.9 - 10	< 1.0 - 3.6	< 1.0 - < 3.5
2-Butanone		47.17			3.83			3.24			3.54		4.1 - 14	ND	NA	NA
Chloroform		2.64			3.90			4.88			ND		ND - 3.4	0.05 - 0.88	< 1.0 - 4.3	< 1.0
Benzene		2.43			2.68			5.43			2.49		3.3 - 21	2.0 - 11	< 3.2 - 5	< 1.6 - 4.7
Toluene		22.98			7.16			15.44			7.16		NA	0.6 - 20	6.5 - 25	1.0 - 6.1
Tetrahydrofuran		22.41			ND			ND			ND		NA	NA	NA	NA
Styrene		15.33			ND			ND			ND		ND - 2.8	ND - 1.4	< 1.0 - < 10	< 1.0 - < 10
1,3,5-Trimethylbenzene		1.47			ND			ND			ND		ND - 5.4	0.2 - 2.5	< 1.0 - < 10	< 1.0 - < 10
1,2,4-Trimethylbenzene		5.41			2.21			1.82			1.03		0.6 - 4.0	2.8 - 7.4	2.2 - 7.4	< 1.0
2,2,4-Trimethylpentane		14.94			1.03			1.68			ND		NA	NA	NA	NA
Xylenes (total)		129.77			8.20			16.97			8.38		< 2.4 - 12	< 1.4 - 7.3	0.39 - 4.7	< 0.25 - 0.74
Total Targeted VOCs		449.48			131.19			134.99			58.04					
Total Non-Targeted VOCs																

Notes:
 ND = Not Detected
 PQL = Practical Quantitation Limit

93042 - 040705 Air Sampling Results Table

¹The United States Environmental Protection Agency Volatile Organic Compounds Database (EPA database) was published in March 1988. This database is a compilation of indoor and outdoor data from studies across the United States.

²The New York State Department of Health Database (NYSDOH Database) is a summary of indoor and outdoor air sample results in control homes collected and analyzed by the NYSDOH from 1989 through 1996.

³The levels are the 25th percentile to 75th percentile, (middle half), of the data from the EPA and NYSDOH database. These databases are comprised of air testing results from studies where there were no known sources of chemicals or chemical spills.

*Compilation of data from ongoing background studies of residences and schools in New York State, not yet published.

< = Means "less than". The number following a "less than sign" (<) is the lowest level the laboratory test can reliably measure (detection limit). If there is a "<" before any number then the chemical was NOT detected in your sample.

pl = Present, but less than the level indicated.

TABLE 1
AIR SAMPLING RESULTS SUMMARY - APRIL 7, 2005
PEEKSKILL PLAZA
PEEKSKILL, WESTCHESTER COUNTY, NEW JERSEY

Sample Designation: BELL Sample Number: Lab ID: Sample Date:	Sub-Slab (Pizzeria) (AS-5) 9005 614460 4/7/2005			Basement Floor (Pizzeria) (AS-6) 9006 614461 4/7/2005			First Floor (Pizzeria) (AS-7) 9007 614462 4/7/2005			Background EPA Database ¹		NYSDOH Database ²	
	PQL	CONC	Q	PQL	CONC	Q	PQL	CONC	Q	Indoor ³	Outdoor ³	Indoor ³	Outdoor ³
VOLATILE ORGANIC COMPOUNDS (mcg/m³)													
Dilution Factor:		1			1			1					
Targeted VOCs Detected:													
Acetone		23.74			20.66			14.01		10. - 27.	ND - 6.7	NA	NA
Tetrachloroethene (PCE)		21.69			155.93			1.49		1.7 - 11	0.82 - 5.9	< 1.5 - 10.	< 1.5 - <6.7
Dichlorodifluoromethane		3.21			4.75			2.67		NA	1.6 - 1.7	< 1.0	< 1.0
1,2-Dichloroethene		ND			2.38			ND		NA	NA	NA	NA
Chloromethane		1.69			1.53			1.47		NA	1.3 - 1.5	< 1.0	< 1.0 - 1.4
2-Chlorotoluene		ND			ND			ND		NA	NA	NA	NA
Cyclohexane		1.14			ND			ND		NA	NA	NA	NA
Ethylbenzene		2.04			1.69			1.69		NA	NA	NA	NA
4-Ethyltoluene		2.65			4.91			1.97		NA	NA	NA	NA
Trichlorofluoromethane		1.24			1.29			1.18		NA	1.1 - 1.2	< 1.0 - 3.8	< 1.0
Trichloroethene (TCE)		1.50			3.98			ND		< 1.2 - 1.2	< 1.5	< 0.25	< 0.25
Isopropyl Alcohol		ND			16.46			ND		NA	NA	NA	NA
Methyl Butyl Ketone		ND			ND			ND		NA	NA	NA	NA
Methylene Chloride		ND			1.87			ND		NA	1.1 - 6.3	< 3.0 - 5.6	< 1.0 - 3.8
4-Methyl-2-pentanone (MIBK)		ND			ND			ND		NA	NA	NA	NA
MTBE		9.01			6.13			5.05		NA	NA	< 1.0 - 4.3	< 1.0
n-Heptane		1.80			1.60			1.56		NA	NA	NA	NA
N-hexane		3.88			3.06			2.82		ND - 4.0	2.9 - 10	< 1.0 - 3.6	< 1.0 - < 3.5
2-Butanone		4.13			3.54			1.95		4.1 - 14	ND	NA	NA
Chloroform		2.64			7.81			2.64		ND - 3.4	0.05 - 0.88	< 1.0 - 4.3	< 1.0
Benzene		2.84			2.52			3.19		3.3 - 21	2.0 - 11	< 3.2 - 5	< 1.6 - 4.7
Toluene		8.29			8.66			9.04		NA	0.6 - 20	6.5 - 25	1.0 - 6.1
Tetrahydrofuran		ND			ND			ND		NA	NA	NA	NA
Styrene		ND			ND			ND		ND - 2.8	ND - 1.4	< 1.0 - < 10	< 1.0 - < 10
1,3,5-trimethylbenzene		ND			1.67			ND		ND - 5.4	0.2 - 2.5	< 1.0 - < 10	< 1.0 - < 10
1,2,4-trimethylbenzene		3.24			6.88			2.11		0.6 - 4.0	2.8 - 7.4	2.2 - 7.4	< 1.0
2,2,4-Trimethylpentane		1.12			1.03			1.26		NA	NA	NA	NA
Xylenes (total)		15.45			15.58			13.06		< 2.4 - 12	< 1.4 - 7.3	0.39 - 4.7	< 0.25 - 0.74
Total Targeted VOCs		111.30			273.93			67.16					
Total Non-Targeted VOCs													

Notes:

ND = Not Detected

PQL = Practical Quantitation Limit

¹The United States Environmental Protection Agency Volatile Organic Compounds Database (EPA database) was published in March 1988. This database is a compilation of indoor and outdoor data from studies across the United States.

²The New York State Department of Health Database (NYSDOH Database) is a summary of indoor and outdoor air sample results in control homes collected and analyzed by the NYSDOH from 1989 through 1996.

³The levels are the 25th percentile to 75th percentile, (middle half), of the data from the EPA and NYSDOH database.

These databases are comprised of air testing results from studies where there were no known sources of chemicals or chemical spills.

⁴Compilation of data from ongoing background studies of residences and schools in New York State, not yet published.

< = Means "less than". The number following a "less than sign" (<) is the lowest level the laboratory test can reliably measure (detection limit).

If there is a "<" before any number then the chemical was NOT detected in your sample.

pl = Present, but less than the level indicated.

TABLE 2
POST EXCAVATION SOIL SAMPLING RESULTS SUMMARY - NOVEMBER 7, 2002
PEEKSKILL PLAZA
PEEKSKILL, WESTCHESTER COUNTY, NEW JERSEY

Sample Designation: BELL Sample Number: Lab ID: Sample Depth (ft): Sample Date:	PE-1 6002 389572 6.0'-6.5' 11/7/2002			PE-1(Dup) 6102 389573 6.0'-6.5' 11/7/2002			PE-2 6003 389574 6.0'-6.5' 11/7/2002			PE-3 6004 389575 6.0'-6.5' 11/7/2002			Trip Blank 1001 389576 -- 11/7/2002			Soil Cleanup Objectives to Protect Ground Water Quality (mg/kg)	Recommended Soil Cleanup Objective (mg/kg)
	PQL	CONC	Q	PQL	CONC	Q	PQL	CONC	Q	PQL	CONC	Q	PQL	CONC	Q		
VOLATILE ORGANIC COMPOUNDS (mg/kg) Dilution Factor:		1			1			1			1			1			
Targeted VOCs Detected:																	
Acetone	0.0045	0.0230	(J)	0.0047	0.0240	J	0.005	0.0240	(J)	0.0048	0.0180		0.005	ND (R)		0.11	0.2
Bromoform	0.0036	0.0041		0.0037	0.0023	J	0.004	0.0022	J	0.0039	0.0007	J	0.004	ND		--	--
cis-1,2-Dichloroethene	0.0045	0.0027	J	0.0047	0.0047		0.005	0.0099		0.0048	0.0051		0.005	ND		--	--
Methylene Chloride	0.0027	0.001(0.0027)	J (U)	0.0028	0.008 (0.0028)	J (U)	0.003	ND		0.0029	ND		0.003	ND		0.1	0.1
Tetrachloroethene (PCE)	0.0009	0.0500	(J)	0.0009	0.0650	(J)	0.001	0.0800	(J)	0.0010	0.0590		0.001	ND		1.4	1.4
Toluene	0.0045	0.0006	J	0.0047	ND		0.005	ND		0.0048	ND		0.005	ND		1.5	1.5
Trichloroethene	0.0009	0.0014	(J)	0.0009	0.0019	(J)	0.001	0.0032	(J)	0.0010	0.0017		0.001	ND		0.7	0.7
Total Targeted VOCs		0.0828 (0.0845)			0.0987 (0.1007)			0.1193			0.0845			ND			
Total Non-Targeted VOCs		ND			0.0049	(a)		ND			ND			ND			
SEMIVOLATILE COMPOUNDS (mg/kg) Dilution Factor:		1			1			1			1			--			
Targeted SVOCs Detected:																	
2-Methylnaphthalene	0.360	0.022	J	0.360	0.019	J	0.360	0.0098	J	0.360	0.014	J		NA		36.4	36.4
Acenaphthene	0.360	ND		0.360	ND		0.360	0.011	J	0.360	ND			NA		90	50
Acenaphthylene	0.360	0.048	J	0.360	0.054	J	0.360	0.048	J	0.360	0.064	J		NA		41	41
Phenanthrene	0.360	0.086	J	0.360	0.088	J	0.360	0.11	J	0.360	0.14	J		NA		220	50
Anthracene	0.360	0.039	J	0.360	0.045	J	0.360	0.042	J	0.360	0.044	J		NA		700	50
Carbazole	0.360	0.0072	J	0.360	ND		0.360	0.01	J	0.360	0.0078	J		NA		--	--
Fluoranthene	0.360	0.29	J	0.360	0.22	J	0.360	0.33	J	0.360	0.22	J		NA		1,900	50
Pyrene	0.360	0.35	J	0.360	0.3	J	0.360	0.41	J	0.360	0.32	J		NA		665	50
Benzo(a)Anthracene	0.036	0.19		0.036	0.19		0.036	0.23		0.036	0.15			NA		3	0.224 or MDL
Chrysene	0.360	0.24	J	0.360	0.19	J	0.360	0.2	J	0.360	0.19	J		NA		0.4	0.4
Benzo(b)Fluoranthene	0.036	0.27		0.036	0.27		0.036	0.31		0.036	0.17			NA		1.1	1.1
Benzo(k)Fluoranthene	0.036	0.14		0.036	0.12		0.036	0.13		0.036	0.082			NA		1.1	1.1
Benzo(a)Pyrene	0.036	0.22		0.036	0.21		0.036	0.26		0.036	0.15			NA		11	0.061 or MDL
Indeno(1,2,3-cd)Pyrene	0.036	0.14		0.036	0.14		0.036	0.19		0.036	0.11			NA		3.2	3.2
Dibenzo(a,h)Anthracene	0.036	0.045		0.036	ND		0.036	0.058		0.036	ND			NA		165,000	0.014 or MDL
Benzo(g,h,i)Perylene	0.360	0.16	J	0.360	0.18	J	0.360	0.18	J	0.360	0.13	J		NA		800	50
Total Targeted SVOCs		2.2482			2.026			2.5288			1.7918			NA			
Total Non-Targeted SVOCs		ND			ND			ND			ND			NA			

Notes:

ND = Not Detected, PQL = Practical Quantitation Limit, NA = Not Analyzed.

J = Data indicates the presence of a compound that meets the identification criteria.

The result is less than the quantitation limit but greater than zero. The concentration given is an approximate value.

R = Unusable result; analyte may or may not be present in this sample.

U = The compound was not detected at the indicated concentration.

Alternatively, this should be considered "not-detected" because it was detected in an associated blank at a similar level.

a = Lab artifact.

() = Value has been added or changed as per Environmental Standards DUSR.

93042 - 110702 PE Soil Sampling Results Table

Page 1 of 1

TABLE 3
PEEKSKILL PLAZA
PEEKSKILL, WESTCHESTER COUNTY, NEW YORK
HISTORICAL GROUND WATER CONCENTRATIONS

Well ID	NY	MW-1	MW-1	MW-1	MW-1	MW-1 (Filtered)	MW-1
Sampling Date	AWQS	06/04/98	01/26/99	11/13/01	04/07/05	04/07/05	05/06/09
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Iron	300*	12,300	2,670	15,900	5,330	ND	NA
Manganese	300*	417	ND	365	231	9.4	NA
Sodium	20,000	31,000	50,600	54,200	74,100	73,000	NA

NYAWQS = New York Ambient Water Quality Standards.

ND = Compound was not detected

NA = Compound was not analyzed.

 Exceeds the NYAWQS (all concentration units ug/L).

TABLE 3
PEEKSKILL PLAZA
PEEKSKILL, WESTCHESTER COUNTY, NEW YORK
HISTORICAL GROUND WATER CONCENTRATIONS

Well ID	NY	MW-2	MW-2	MW-2	MW-2	MW-2(Filtered)	MW-2
Sampling Date	AWQS	06/04/98	01/26/99	11/13/02	04/07/05	04/07/05	05/06/09
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
1,2-Dichloroethane	0.6	ND	18	ND	ND	NA	0.46
Tetrachloroethene	5	87	81	76	61	NA	22
Cadmium	5	ND	ND	1.6	22.4	2.5	NA
Iron	300*	14,200	9,060	5,370	14,500	575	NA
Manganese	300*	1,170	999	354	536	51.1	NA
Sodium	20,000*	126,000	157,000	42,700	80,800	77,000	NA

NYAWQS = New York Ambient Water Quality Standards.

ND = Compound was not detected

NA = Compound was not analyzed.

Exceeds the NYAWQS (all concentration units ug/L).

TABLE 3
PEEKSKILL PLAZA
PEEKSKILL, WESTCHESTER COUNTY, NEW YORK
HISTORICAL GROUND WATER CONCENTRATIONS

Well ID	NY	MW-3	MW-3	MW-3	MW-3	MW-3 (Filtered)	MW-3
Sampling Date	AWQS	06/04/98	01/26/99	11/13/02	04/07/05	04/07/05	05/06/09
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Tetrachloroethene	5	2	ND	ND	ND	NA	ND
Cadmium	5	ND	3.2	13.2	21.1	1.1	NA
Iron	300*	23,700	1,680	4,970	17,000	ND	NA
Lead	25	18	ND	6.7	27.8	ND	NA
Manganese	300*	1,390	127	230	887	29.5	NA
Sodium	20,000*	9,990	18,900	15,800	18,900	19,100	NA

NYAWQS = New York Ambient Water Quality Standards.

ND = Compound was not detected

NA = Compound was not analyzed

J = Estimated Value.

18,900 Exceeds the NYAWQS (all concentration units ug/L).

TABLE 3
PEEKSKILL PLAZA
PEEKSKILL, WESTCHESTER COUNTY, NEW YORK
HISTORICAL GROUND WATER CONCENTRATIONS

Well ID	NY	MW-4	MW-4	MW-4	MW-4	MW-4(Filtered)	MW-4
Sampling Date	AWQS	06/04/98	01/26/99	11/13/02	04/07/05	04/07/05	05/06/09
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
1,2-Dichloroethane	0.6	3	ND	ND	ND	NA	ND
Tetrachloroethene	5	13	15	11	5.1	NA	15.6
Cadmium	5	ND	2.4	47.1	5.9	1.9	NA
Iron	300*	17,000	5,380	5,700	10,100	ND	NA
Lead	25	47	4.7	6.7	13.9	ND	NA
Manganese	300*	3420	1050	503	991	137	NA
Sodium	20,000*	74,300	189,000	44,300	78,800	81,300	NA

NYAWQS = New York Ambient Water Quality Standards.

ND = Compound was not detected

NA = Compound was not analyzed.

J = Estimated Value.

Exceeds the NYAWQS (all concentration units ug/L).

TABLE 3
PEEKSKILL PLAZA
PEEKSKILL, WESTCHESTER COUNTY, NEW YORK
HISTORICAL GROUND WATER CONCENTRATIONS

Well ID	NY	MW-5	MW-5	MW-5	MW-5	MW-5(Filterd)
Sampling Date	AWQS	06/04/98	01/26/99	11/13/02	04/07/05	04/07/05
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Antimony	3	5.9	ND	ND	ND	ND
Arsenic	25	ND	ND	50.5	ND	ND
Barium	1,000	53.5	91.1	1,010	31.6	9
Cadmium	5	ND	ND	5.4	61.6	2.5
Chromium	50	11.2	14.6	415	6.2	ND
Copper	200	11.7	17.7	323	14.5	ND
Iron	300*	10,700	13,700	280,000	5,260	ND
Lead	25	7.4	6.3	147	10.7	ND
Manganese	300*	199	287	5,540	91.9	ND
Nickel	100	10.2	11.7	353	5.3	ND
Sodium	20,000*	31,400	27,400	21,900	11,000	11,900

NYAWQS = New York Ambient Water Quality Standards.

ND = Compound was not detected

NA = Compound was not analyzed.

J = Estimated Value.

Exceeds the NYAWQS (all concentration units ug/L).

TABLE 3
PEEKSKILL PLAZA
PEEKSKILL, WESTCHESTER COUNTY, NEW YORK
HISTORICAL GROUND WATER CONCENTRATIONS

Well ID	NY	MW-6	MW-6	MW-6	MW-6(Filtered)	MW-6
Sampling Date	AWQS	11/13/02	02/04/04	04/07/05	04/07/05	05/06/09
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
cis-1,2-Dichloroethene	5	7.1	3	1.3	NA	3.8
Tetrachloroethene	5	140	100	140	NA	68.7
Cadmium	5	ND	ND	102	8.1	NA
Iron	300*	3,890	65.3	4,460	49.4	NA
Manganese	300*	704	12.1	649	43	NA
Sodium	20,000*	505,000	96,500	115,000	175,000	NA

NYAWQS = New York Ambient Water Quality Standards.

ND = Compound was not detected

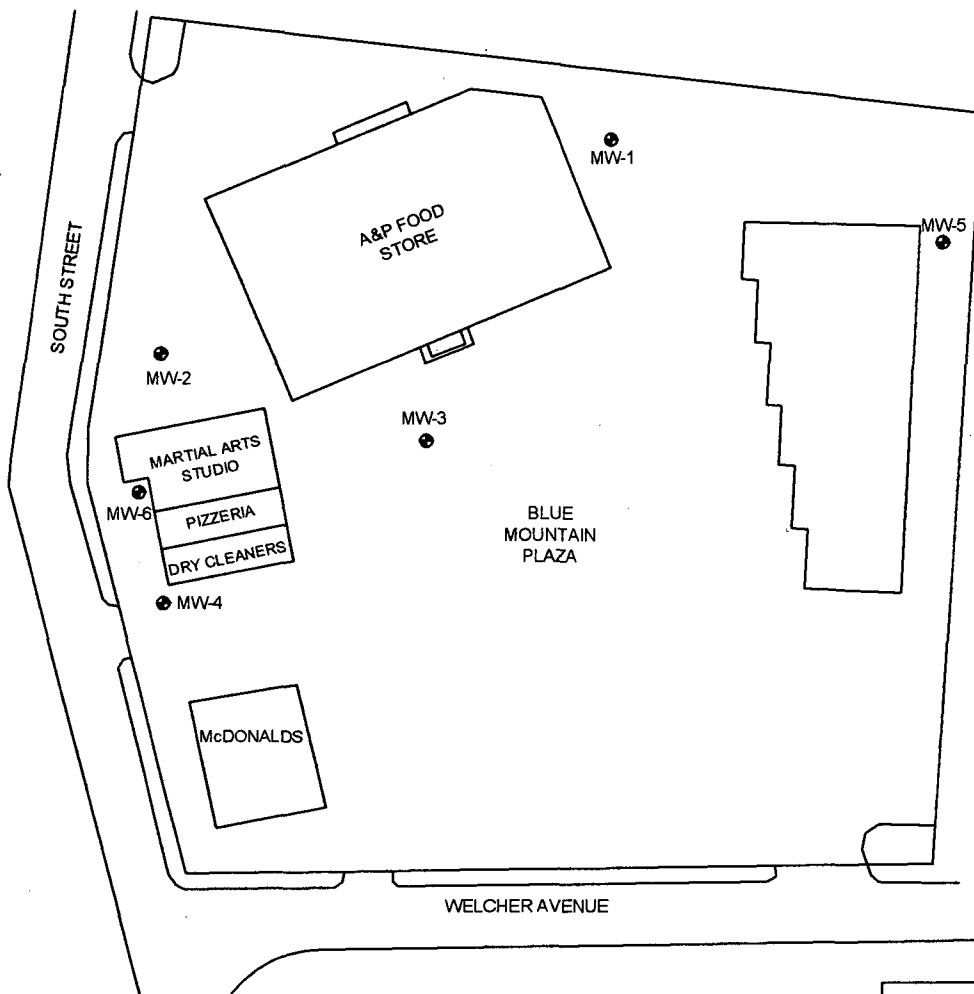
NA = Compound was not analyzed.

J = Estimated Value.

Exceeds the NYAWQS (all concentration units ug/L).

FIGURES

KARTA
CONTAINER
&
RECYCLING, INC.



ENGELHARD FACILITIES

ENGELHARD FACILITIES

WELCHER AVENUE

A&P FOOD
STORE

MW-1

MW-3

MW-2

MW-6

MARTIAL ARTS
STUDIO

PIZZERIA

DRY CLEANERS

MW-4

McDONALDS

MW-5

LEGEND

● EXISTING MONITORING WELL LOCATION

FIGURE
1
SITE
PLAN

No.	Revision/Version	Date

Prepared by:
BELL ENVIRONMENTAL
CONSULTANTS, INC.
230 ROUTE 206
SUITE 205
FLANDERS, NJ 07836

Project Name and Address:
PEEKSKILL PLAZA
20 WELCHER AVENUE
PEEKSKILL, NEW YORK

Project No.	93042-01	Sheet	
Date	SEPT., 2011		
Scale	1" = 116'		

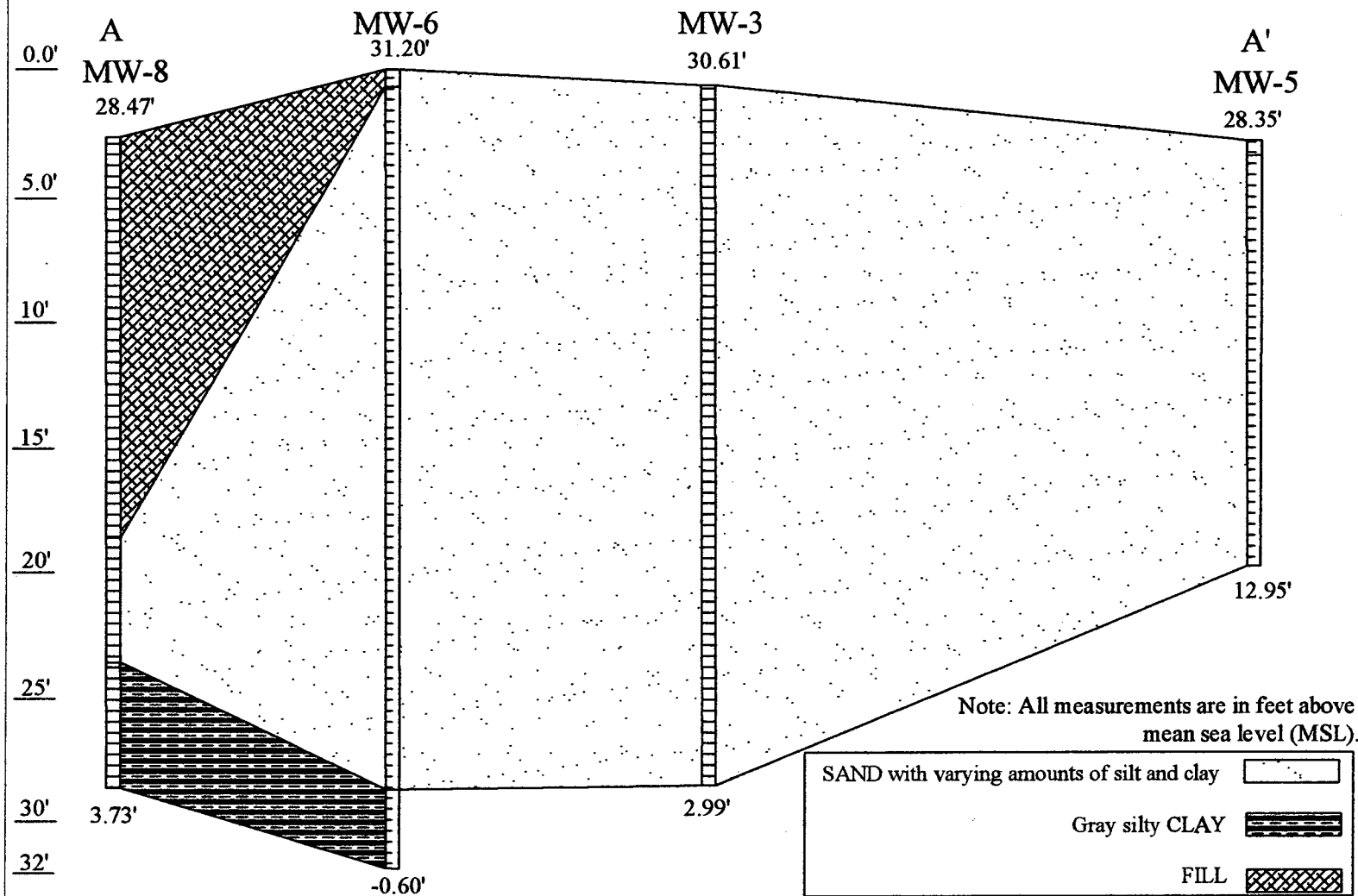


FIGURE
2
SITE
SOIL
CROSS
SECTION

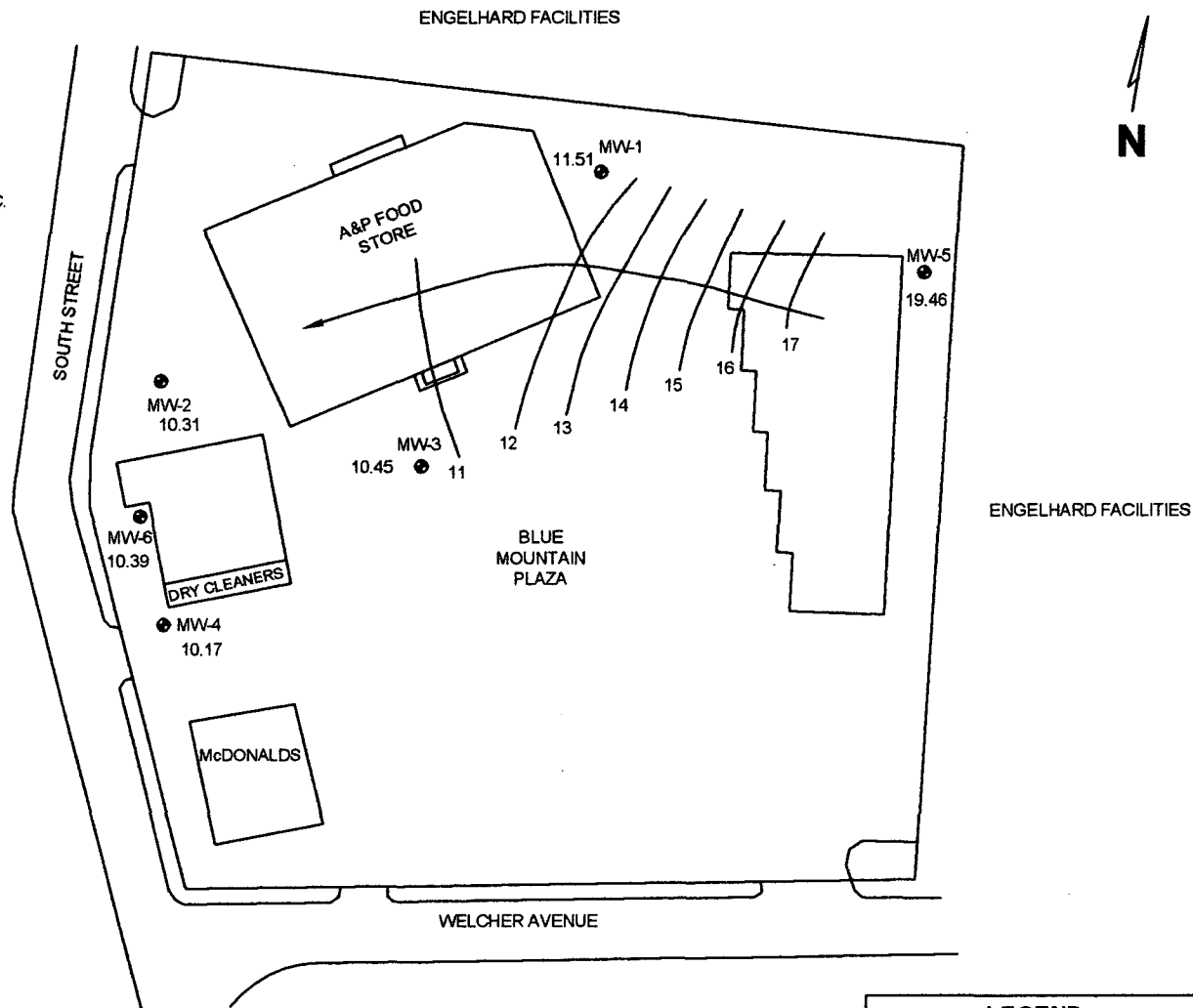
No.	Revision/Version	Date

BELL ENVIRONMENTAL
CONSULTANTS, INC.
230 ROUTE 206, SUITE
205
FLANDERS, NJ 07836

PEEKSKILL PLAZA
20 WELCHER AVENUE
PEEKSKILL, NEW YORK

Project 93042-07
JAN 2003
1" = 92'

KARTA
CONTAINER
&
RECYCLING, INC.



LEGEND

● EXISTING MONITORING WELL LOCATION

FIGURE

3

INTERPRETED

GROUND

WATER

CONTOUR

MAP

4/7/05

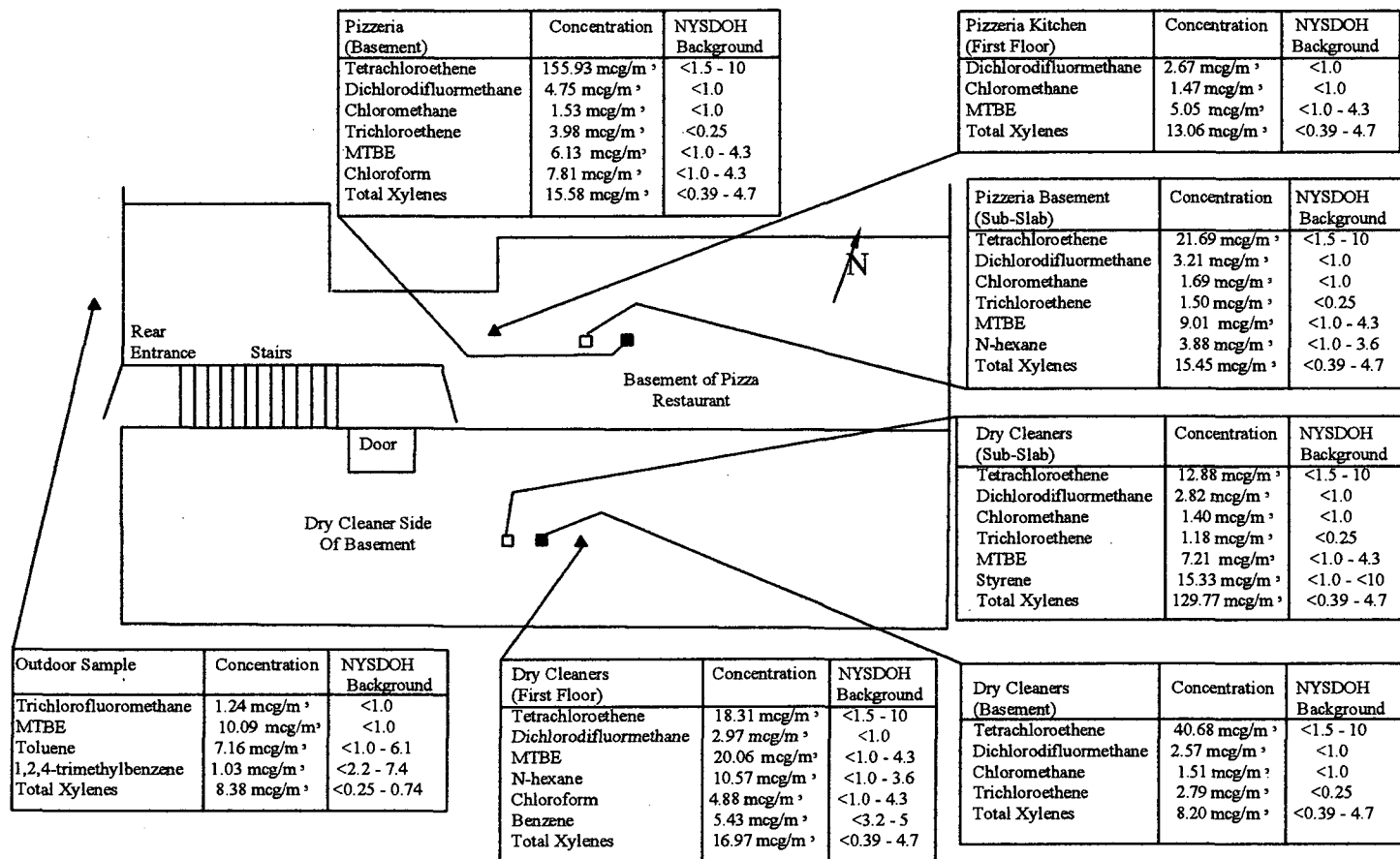
No.	Revision/Notes	Date

Site Name and Address
BELL ENVIRONMENTAL
295 C ROUTE 46
BUDD LAKE, NJ 07828

Project Name and Address
PEEKSKILL PLAZA
20 WELCHER AVENUE
PEEKSKILL, NEW YORK

Project Number 93042-01
Date December, 2002

Scale 1" = 116'



LEGEND

- ▲ Approximate Location of Air Sample Collected at Ground Level
- Approximate Location of Air Sample Collected from Basement
- Approximate Location of Air Sample Collected from Basement Sub-Slab

FIGURE

4

AIR
SAMPLE

RESULTS

DETECTED

ABOVE

NYSDOH

DATABASE

LEVELS

4/7/05

No.	Revision/Name	Date

Prepared and Issued:
BELL ENVIRONMENTAL
CONSULTANTS, INC.
230 ROUTE 206, SUITE
205
FLANDERS, NJ 07836

Project Name and Address:
PEEKSKILL PLAZA
20 WELCHER AVENUE
PEEKSKILL, NEW YORK

Project No: 93042-01
Date: October, 2003
Scale: 1" = 17.5'

BUILDING CONTAINING DRY CLEANERS

PE-2 (6-6.5')	CONC.	SCOPGWQ	RSCO
Benzo(a)anthracene	0.23 mg/kg	3.0 mg/kg	0.224 mg/kg
Benzo(a)pyrene	0.26 mg/kg	11 mg/kg	0.061 mg/kg
Dibenzo(a)anthracene	0.058 mg/kg	165,000 mg/kg	0.014 mg/kg

GRATE

DUMPSTER
AREA

PE-3 (6-6.5')	CONC.	SCOPGWQ	RSCO
Benzo(a)anthracene	0.15 mg/kg	3.0 mg/kg	0.224 mg/kg
Benzo(a)pyrene	0.15 mg/kg	11 mg/kg	0.061 mg/kg

PE-1 (6-6.5')	CONC.	SCOPGWQ	RSCO
Benzo(a)anthracene	0.19 mg/kg	3.0 mg/kg	0.224 mg/kg
Benzo(a)pyrene	0.22 mg/kg	11 mg/kg	0.061 mg/kg
Dibenzo(a)anthracene	0.046 mg/kg	165,000 mg/kg	0.014 mg/kg
PE-1 (DUP) (6-6.5')	CONC.	SCOPGWQ	RSCO
Benzo(a)anthracene	0.19 mg/kg	3.0 mg/kg	0.224 mg/kg
Benzo(a)pyrene	0.21 mg/kg	11 mg/kg	0.061 mg/kg

EXCAVATION
AREA

SOUTH STREET

LEGEND

- Soil Sample Location

Note: SCOPGWQ = Soil Cleanup Objectives to Protect Ground Water Quality

RSCO = Recommended Soil Cleanup Objective

General Notes

FIGURE

5

PE

SAMPLE

LOCATIONS

&

EXCEEDENCES

11/7/02

No.	Revision/Notes	Date

Prepared by:
BELL ENVIRONMENTAL
CONSULTANTS, INC.
230 ROUTE 206, SUITE
205
FLANDERS, NJ 07834

Project Name and Address:
PEEKSKILL PLAZA
20 WELCHER AVENUE
PEEKSKILL, NEW YORK

Project: 93042-07

Date: JAN., 2003

Scale: 1" = -14'

APPENDIX 1

Referer's Deed in Foreclosure:

CORRECTION DEED

THIS IS A LEGAL INSTRUMENT AND SHOULD BE EXECUTED UNDER SUPERVISION OF AN ATTORNEY

THIS DEED, made the 14th day of May nineteen hundred and ninety-one
 BETWEEN JOHN J. SHERLOCK, ESQ., 149 Grand Street, White Plains, New York

referee

duly appointed in the action hereinafter mentioned, grantor and
 KURTSM REALTY CORP., a domestic corporation, organized and existing under
 and by virtue of the laws of the State of New York, with offices at
 Suite 245, 1301 Franklin Avenue, Garden City, New York 11530

grantee

WITNESSETH, that the grantor, the referee appointed in an action between

KURTSM REALTY CORP.

plaintiff,

and MICHAEL N. APPELL, BERNARD KOSTER, FRED FELSON, FRANK ZELLER, PEERSKILL PLAZA
 PARTNERSHIP, GOLDEN'S TREE SERVICE, INC., and "JOHN DOE", "JANE DOE", "RICHARD
 ROE", and "MARY ROE", the names of the last mentioned defendants being fictitious, their
 true names being unknown to the Plaintiff, it being intended to designate tenants or
 persons in possession of the hereinafter described mortgaged premises, or some part
 or parts thereof, all persons who claim interest therein acquired after the filing of
 the Notice of Pendency

foreclosing a mortgage recorded on the third day of March 19 86 by the office of the
 Clerk of the County of Westchester in (Liber) ~~X(XXXXXX)~~ 9736 of mortgages,
 at page 250 * in pursuance of judgment entered at a motion of mortgages,
 Supreme Court of State of N.Y. on the 10th day of May 19 90, Index # 7008/89
 and in consideration of ONE HUNDRED THOUSAND AND 00/100 (\$100,000.00)

Dollars paid by the grantee, being the highest sum bid

it the sale under said judgment does hereby grant and convey unto the grantee,
 ALL that lot, piece or parcel of land with the buildings and improvements thereon, situate
 lying and being in the City of Peekskill, County of Westchester and State of New York, at
 the intersection of the highway known as the New York and Albany Post Road, with the high-
 way known as Walcher Avenue, being bounded and described as follows:
 BEGINNING at a point at the corner formed by the intersection of the easterly side of Lower
 South Street and the northerly side of Walcher Avenue as widened and now laid out;
 THENCE running along the northerly side of Walcher Avenue as widened and now laid out, North
 79°50'20" East 470.90 feet to the westerly line of land now or formerly of James W. Husted
 and a stone wall;
 THENCE running along said last mentioned land and the center line of said stone wall, North
 63° West 321.31 feet and North 4°24' West 172.54 feet to the southerly line of land now or
 formerly of Atlantic and Pacific Novelty Co. and a stone wall;
 RUNNING along said last mentioned land and the center line of said stone wall, South 88°17'50"
 West 337.38 feet, and South 87°09'50" West 190.43 feet to the easterly side of Lower South
 Street
 THENCE running along said easterly side of Lower South Street South 0°08'00" East 266.88 feet,
 South 10°42'00" East 38.41 feet, and South 22°59'20" East 271.82 feet to the point of BEGINNING

* along with a certain mortgage recorded on the 17th day of September, 1987 in Liber 11630
 of mortgages at p. 279, both mortgages having been consolidated and modified to form a single
 lien on the premises, said Consolidation and Modification Agreement was recorded on the 17th
 day of September, 1987 in Liber 11630 of Mortgages at p. 301. Both these recorded documents
 were filed in the office of the Clerk of the County of Westchester (div. of Land Records.)

THIS IS A CORRECTION DEED EXECUTED TO CORRECT A CERTAIN REFEREE'S DEED IN FORECLOSURE FILED
 IN THE 20th DAY OF JUNE, NINETEEN HUNDRED AND NINETY IN THE OFFICE OF THE CLERK OF THE
 COUNTY OF WESTCHESTER (DIV. OF LAND RECORDS) IN LIBER 9832 OF MORTGAGES AT PAGE 112

O HAVE AND TO HOLD the premises herein granted unto the grantees

and assigns forever,

IN WITNESS WHEREOF, the grantor has hereunto set his hand and seal, the date first above written.

John J. Sherlock
 L.S.
 Referee

STATE OF New York, COUNTY OF Westchester

On the 17th day of May

1921

before me came

John J. Sherlock, Esq.

to me known and known to me to be the individual

described in, and who executed, the foregoing instrument, and acknowledged to me that he executed the same.

Joseph Louis Latwin
JOSEPH LOUIS LATWIN
Notary Public, State of New York
No. 60-4643238
Qualified in Westchester County
Commission Expires 7/31/1921

Referee's Deed
in
Foreclosure

File No. 201W498

John J. Sherlock, Esq, referee

TO

Kurtsam Realty Corp.

SECTION 42.8

formerly sec 31

BLOCK 1

bl 1, lot 2, 2.1

LOT 1, 2

COUNTY OF Westchester
City of Peekskill

Recorded At Request of

First American Title Insurance Company of New York

RETURN BY MAIL TO:

STANDARD FORM OF NEW YORK BOARD OF TITLE UNDERWRITERS
distributed by
First American Title Insurance Company
of New York



CR 59624

Kurtsam Realty
P.O. BOX 353
CROTON ON HUDSON, NY

Zip No. 12520

APPENDIX 2



Office of the Westchester County Clerk



2013013100117001001Y

Payment Cover Page

Submitter Information

Name: Office of the Westchester County Clerk Customer Ser Phone: 9149953111
Address 1: 110 Dr. Martin Luther King Jr. Blvd. Fax:
Address 2: Email: email@westchestergov.com
City/State/Zip: White Plains NY 10601 Reference for Submitter: KURT SAM REALTY CORP

Payment Due

Control Number	Document Type	Fees	Transfer Tax	Mortgage Tax	Total
530313237	Declaration (DLR)	\$230.50	\$0.00	\$0.00	\$230.50
Total Due :					\$230.50

Payment Details

Fees	CHECK # 2625 (Check, Uncertified)	PENDING	\$230.50
Total Amount :			\$230.50



530313237DLR001R

Westchester County Recording & Endorsement Page

Prepared: 1/31/2013 12:22:37 PM

Submitter Information

Name: Office of the Westchester County Clerk Customer Ser Phone: 9149953111
Address 1: 110 Dr. Martin Luther King Jr. Blvd. Fax:
Address 2: Email: email@westchestergov.com
City/State/Zip: White Plains NY 10601 Reference for Submitter: KURTSAM REALTY CORP

Document Details

Control Number: 530313237 Document Type: Declaration (DLR)
Package ID: 2013013100117001000 Document Page Count: 37 Total Page Count: 38

Parties

☐ Additional Parties on Continuation page

1st PARTY

2nd PARTY

1: KURTSAM REALTY CORP - Other 1: KURTSAM REALTY CORP - Other
2: 2:

Property

☐ Additional Properties on Continuation page

Street Address: 20 WELCHER AVENUE Tax Designation: 42.8-1-1 & 2
City/Town: PEEKSKILL Village:

Cross-References

☐ Additional Cross-Refs on Continuation page

1: 10032/00124 2: 3: 4:

Supporting Documents

Recording Fees

Statutory Recording Fee: \$40.00
Page Fee: \$190.00
Cross-Reference Fee: \$0.50
Mortgage Affidavit Filing Fee: \$0.00
RP-5217 Filing Fee: \$0.00
TP-584 Filing Fee: \$0.00
Total Recording Fees Paid: \$230.50

Transfer Taxes

Consideration: \$0.00
Transfer Tax: \$0.00
Mansion Tax: \$0.00
Transfer Tax Number:

Mortgage Taxes

Document Date:
Mortgage Amount: \$0.00
Basic: \$0.00
Westchester: \$0.00
Additional: \$0.00
MTA: \$0.00
Special: \$0.00
Yonkers: \$0.00
Total Mortgage Tax: \$0.00

Dwelling Type: Exempt: ☐
Serial #:

Record and Return To

☐ Pick-up at County Clerk's office

KURTSAM REALTY CORP
PO BOX 383

CROTON ON HUDSON, NY 10520

DECLARATION of COVENANTS and RESTRICTIONS

THIS COVENANT is made the 23rd day of August 2011, by Kurtsam Realty Corporation and having an office for the transaction of business at 2114 Quaker Ridge Road, Croton-On-Hudson, New York 10520.

WHEREAS, Blue Mountain Shopping Center is the subject of Voluntary Agreement executed by Division of Environmental Remediation as part of the New York State Department of Environmental Conservation's (the "Department's") Voluntary Cleanup (#V00160-3, namely that parcel of real property located on 20 Welcher Avenue in the City of Peekskill, County of Westchester, State of New York, which is part of lands conveyed by John J. Sherlock, Esq. to Kurtsam Realty Corporation by deed dated May 14, 1991 and recorded in the Westchester County Clerk's Office on May 14, 1991 in Book ~~10032~~ of Deeds at Page ~~24~~ and being more particularly described in Appendix "A," attached to this declaration and made a part hereof, and hereinafter referred to as "the Property"; and

WHEREAS, the Department approved a remedy to eliminate or mitigate all significant threats to the environment presented by the contamination disposed at the Property and such remedy requires that the Property be subject to restrictive covenants.

NOW, THEREFORE, Kurtsam Realty Corporation for itself and its successors and/or assigns, covenants that:

First, the Property subject to this Declaration of Covenants and Restrictions is as shown on a map attached to this declaration as Appendix "B" and made a part hereof.

Second, unless prior written approval by the Department or, if the Department shall no longer exist, any New York State agency or agencies subsequently created to protect the environment of the State and the health of the State's citizens, hereinafter referred to as "the Relevant Agency," is first obtained, where contamination remains at the Property subject to the provisions of the Site Management Plan ("SMP"), there shall be no construction, use or occupancy of the Property that results in the disturbance or excavation of the Property which threatens the integrity of the engineering controls or which results in unacceptable human exposure to contaminated soils.

Third, the owner of the Property shall not disturb, remove, or otherwise interfere with the installation, use, operation, and maintenance of engineering controls required for the Remedy, are described in the SMP, unless in each instance they first obtain a written waiver of such prohibition from the Department or Relevant Agency.

Fourth, the owner of the Property shall prohibit the Property from ever being used for purposes other than for commercial use without the express written waiver of such prohibition by the Relevant Agency.

Fifth, the owner of the Property shall prohibit the use of the groundwater underlying the Property without treatment rendering it safe for drinking water or industrial purposes, as appropriate, unless the user first obtains permission to do so from the Department or Relevant Agency. [If no groundwater restriction is necessary, use the corresponding template, which omits this clause and renumbers subsequent paragraphs]

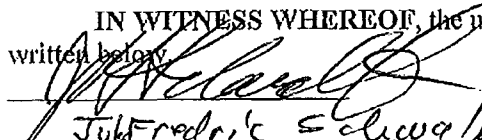
Sixth, the owner of the Property shall provide a periodic certification, prepared and submitted by a professional engineer or environmental professional acceptable to the Department or Relevant Agency, which will certify that the institutional and engineering controls put in place are unchanged from the previous certification, comply with the SMP, and have not been impaired.

Seventh, the owner of the Property shall continue in full force and effect any institutional and engineering controls required for the Remedy and maintain such controls, unless the owner first obtains permission to discontinue such controls from the Department or Relevant Agency, in compliance with the approved SMP dated [not yet approved] which is incorporated and made enforceable hereto subject to modifications as approved by the Department or Relevant Agency.

Eighth, this Declaration is and shall be deemed a covenant that shall run with the land and shall be binding upon all future owners of the Property, and shall provide that the owner and its successors and assigns consent to enforcement by the Department or Relevant Agency of the prohibitions and restrictions that the Voluntary Agreement require to be recorded, and hereby covenant not to contest the authority of the Relevant Agency to seek enforcement.

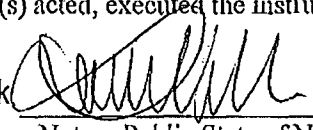
Ninth, any deed of conveyance of the Property, or any portion thereof, shall recite, unless the Department or Relevant Agency has consented to the termination of such covenants and restrictions, that said conveyance is subject to this Declaration of Covenants and Restrictions.

IN WITNESS WHEREOF, the undersigned has executed this instrument the day written before


Jules F. Schwalb - Authorized Signature
Kurtzman Realty Corp.
STATE OF NEW YORK)

) s.s.:
COUNTY OF Westchester)

On the 16th day of January, in the year 2013, before me, the undersigned, personally appeared Jules F. Schwalb, personally known to me or proved to me on the basis of satisfactory evidence to be the individual(s) whose name is (are) subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their capacity(ies), and that by his/her/their signature(s) on the instrument, the individual(s), or the person upon behalf of which the individual(s) acted, executed the instrument.

Livia Villa
Notary Public - State of New York
Qualified in Westchester County
My Commission Expires 06/09/2016
No. 01VI6188714

Notary Public State of New York

APPENDIX A

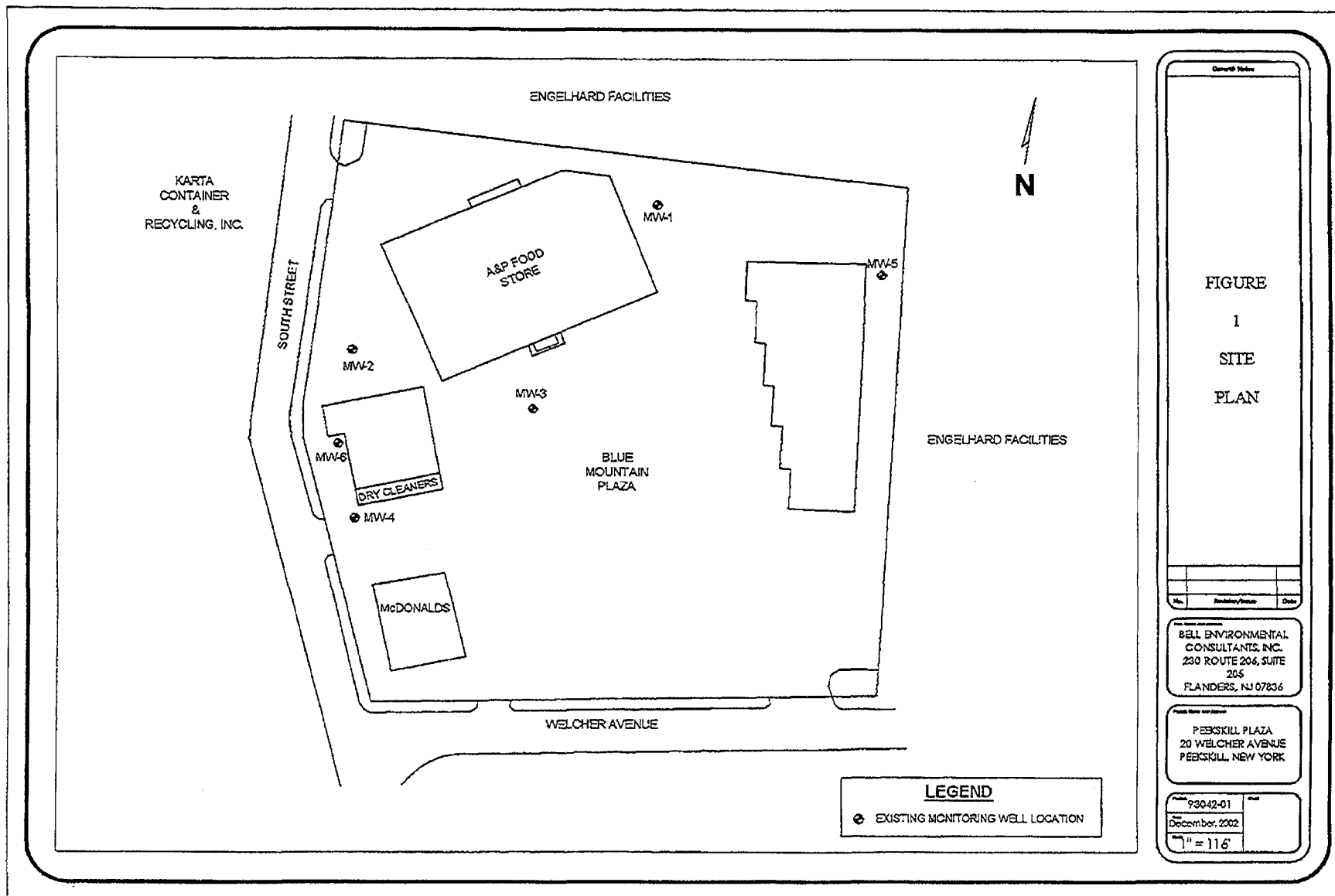


FIGURE
1
SITE
PLAN

Site	Regulatory Authority	Date

BELL ENVIRONMENTAL
CONSULTANTS, INC.
230 ROUTE 206, SUITE
205
FLANDERS, NJ 07836

PEESKILL PLAZA
20 WELCHER AVENUE
PEESKILL, NEW YORK

Project: 93042-01
Date: December, 2002
Scale: 1" = 116'

APPENDIX B

Referer's Deed in Foreclosure:

CORRECTION DEED

THIS IS A CORAL INSTRUMENT AND SHOULD BE EXECUTED UNDER SUPERVISION OF AN ATTORNEY

THIS DEED, made the 14th day of May, nineteen hundred and ninety-one
 BETWEEN JOHN J. SHERLOCK, ESQ., 149 Grand Street, White Plains, New York

referee

duly appointed in the action hereinafter mentioned, grantor and
 KURTSM REALTY CORP., a domestic corporation, organized and existing under
 and by virtue of the laws of the State of New York, with offices at
 Suite 245, 1391 Franklin Avenue, Garden City, New York 11530

grantee

WITNESSETH, that the grantor, the referee appointed in an action between

KURTSM REALTY CORP.

plaintiff,

and MICHAEL N. APPELL, BERNARD KOSTER, FRED FELSON, FRANK ZELLER, PEESKILL PLAZA
 PARTNERSHIP, GOLDEN'S TREE SERVICE, INC., and "JOHN DOE", "JANE DOE", "RICHARD
 ROE", and "MARY ROE", the names of the last mentioned defendants being fictitious, their
 true names being unknown to the Plaintiff, it being intended to designate tenants or
 persona in possession of the hereinafter described mortgaged premises, or some part
 or parts thereof, all persons who claim interest therein acquired after the filing of
 the Notice of Pendency

foreclosing a mortgage recorded on the third day of March, 19 86, in the office of the
 Clerk of the County of Westchester, in (Liber) XXXXXXXX 9736 of mortgages,
 at page 250, in pursuance of a judgment entered at a motion term of the
 Supreme Court of State of N.Y. on the 10th day of May, 19 90, Index # 7008/89
 and in consideration of ONE HUNDRED THOUSAND AND 00/100 (\$100,000.00)

Dollars paid by the grantee, being the highest sum bid

it the sale under said judgment does hereby grant and convey unto the grantee,
 ALL that lot, piece or parcel of land with the buildings and improvements thereon, situate
 lying and being in the City of Peekskill, County of Westchester and State of New York, at
 the intersection of the highway known as the New York and Albany Post Road, with the high-
 way known as Welcher Avenue, being bounded and described as follows:
 BEGINNING at a point at the corner formed by the intersection of the easterly side of Lower
 South Street and the northerly side of Welcher Avenue as widened and now laid out;
 THENCE running along the northerly side of Welcher Avenue as widened and now laid out, North
 79°50'20" East 470.90 feet to the westerly line of land now or formerly of James W. Husted
 and a stone wall;
 THENCE running along said last mentioned land and the center line of said stone wall, North
 6°34' West 321.31 feet and North 4°24' West 172.54 feet to the southerly line of land now or
 formerly of Atlantic and Pacific Novelty Co. and a stone wall;
 RUNNING along said last mentioned land and the center line of said stone wall, South 88°17'50"
 West 337.38 feet, and South 87°09'50" West 190.43 feet to the easterly side of Lower South
 Street
 THENCE running along said easterly side of Lower South Street South 0°08'00" East 266.88 feet,
 South 10°42'00" East 38.41 feet, and South 22°59'20" East 271.82 feet to the point of BEGINNING

* along with a certain mortgage recorded on the 17th day of September, 1987 in Liber 11630
 of mortgages at p. 279, both mortgages having been consolidated and modified to form a single
 lien on the premises, said Consolidation and Modification Agreement was recorded on the 17th
 day of September, 1987 in Liber 11630 of Mortgages at p. 301. Both these recited documents
 were filed in the office of the Clerk of the County of Westchester (div. of Land Records.)

THIS IS A CORRECTION DEED EXECUTED TO CORRECT A CERTAIN REFEREE'S DEED IN FORECLOSURE FILED
 IN THE 20th DAY OF JUNE, NINETEEN HUNDRED AND NINETY IN THE OFFICE OF THE CLERK OF THE
 COUNTY OF WESTCHESTER (DIV. OF LAND RECORDS) IN LIBER 9832 OF MORTGAGES AT PAGE 112

O HAVE AND TO HOLD the premises herein granted unto the grantee

and assigns forever,

IN WITNESS WHEREOF, the grantor has herunto set his hand and seal, the date first above written.

Presence of
 [Signature]

[Signature]
 L.S.
 Referee

STATE OF New York, COUNTY OF Westchester ss.:

On the 14th day of May 1991

before me came

John J. Sherlock, Esq.

to me known and known to me to be the individual

described in, and who executed, the foregoing instrument, and acknowledged to me that he executed the same.

Joseph Louis Latwin
JOSEPH LOUIS LATWIN
Notary Public, State of New York
No. 60-4643238
Qualified in Westchester County
Commission Expires 7/31/1991

Referee's Deed
in
Enclosure

File No. 201WM498

John J. Sherlock, Esq, referee

TO

Kurtsam Realty Corp.

SECTION 42.8 formerly sec 31
BLOCK 1 bl 1, lot 2, 2.1
LOT 1, 2
COUNTRY VILLAGE OF Westchester
City of Peekskill

Recorded At Request of
First American Title Insurance Company of New York
RETURN BY MAIL TO:

STANDARD FORM OF NEW YORK BOARD OF TITLE UNDERWRITERS
Digitized by
First American Title Insurance Company
of New York.
 CR 59624

Kurtsam. Realty
P.O. BOX 383
CROTON ON HUDSON, NY
Zip No. 12520

LIBER 10032 PAGE 126



WESTCHESTER COUNTY RECORDING AND ENDORSEMENT PAGE
(THIS PAGE FORMS PART OF THE INSTRUMENT)

ADDITIONAL COMMENTS

RECORD AND RETURN

TITLE COMPANY NUMBER

THE FOREGOING INSTRUMENT WAS ENDORSED FOR THE RECORD AS FOLLOWS:

TYPE OF INSTRUMENT SDE
(SEE CODES FOR DEFINITIONS)

THE PROPERTY IS SITUATED IN
WESTCHESTER COUNTY, N.Y. IN
THE

- 02 TOWN OF BEDFORD
- 06 TOWN OF CORTLANDT
- 09 TOWN OF EASTCHESTER
- 11 TOWN OF GREENBURGH
- 12 TOWN OF HARRISON
- 16 TOWN OF LEWISBORO
- 17 TOWN OF MAMARONECK
- 19 TOWN OF MT. KISCO
- 20 TOWN OF MT. PLEASANT
- 21 CITY OF MT. VERNON
- 22 TOWN OF NEW CASTLE
- 23 CITY OF NEW ROCHELLE
- 24 TOWN OF NORTH CASTLE
- 26 TOWN OF NORTH SALEM
- 28 TOWN OF OSSINING
- 30 CITY OF PEEKSKILL
- 31 TOWN OF PELHAM
- 36 TOWN OF POUND RIDGE
- 36 CITY OF RYE
- 37 TOWN OF RYE
- 38 TOWN OF SCARSDALE
- 39 TOWN OF SOMERS
- 42 CITY OF WHITE PLAINS
- 43 CITY OF YONKERS
- 44 TOWN OF YORKTOWN

LIBER 10032
PAGE 124

STAT'Y CHARGE 5.25

REC'ING CHARGE 6

REC. MGT. FUND 4.75

CROSS REFERENCE 1.50

CERT/RECEIPT

TOTAL 17.50

\$ None CONSIDERATION

RECEIVED
EXEMPT
MAY 17 1991

10177

REAL ESTATE
TRANSFER TAX
WESTCHESTER COUNTY

MORTG. DATE

MORTG. AMOUNT

EXEMPT YES NO

REC'D TAX ON ABOVE MTGE:

BASIC \$

ADDTL \$

SUBTOTAL \$

SPECIAL \$

TOTAL \$

SERIAL No.

DWELLING: ☐ 1-6 ☐ OVER

☐ DUAL TOWN

☐ DUAL COUNTY/STATE

☐ HELD

☐ NOT HELD

ANDREW J. SPANO
WESTCHESTER COUNTY CLERK

TERMINAL No. DATE RETURNED

EXAMINED BY
WITNESS BY HAND AND OFFICIAL SEAL

RECEIVED
91 MAY 17 AM 11:07
ANDREW J. SPANO
WESTCHESTER COUNTY CLERK



*First American Title Insurance Company
of New York*

1 North Broadway P.O. Box 832 White Plains, New York 10601
(914) 997-1444

November 22, 1985

William Groh, Esq.
143 East State Street
Trenton, NJ 00619

Re: Title No. 201-W-4498
Premises: South St & Welcher Ave
Purchaser/Mortgagor: Peekskill Plaza
Partnership

Gentlemen:

Enclosed please find the following in connection with
the above-referenced title:

- (XX) Survey
- (XX) Survey reading Amended
- () Housing & Building
- () Certificate of Occupancy
- () Fire Department
- () Emergency Repairs
- () Board of Health
- () Fuel Oil Permit
- () Air Pollution
- () Copy of Certificate of Occupancy
- () Dept of Highways

Kindly attach same to report previously sent to you
and make it a part thereof.

Very truly yours,

MM:rs
cgt Michael Zients, Esq.

Margaret Miller
Assistant Vice President

Member of New York Board of Title Underwriters—New York State Land Title Association



*First American Title Insurance Company
of New York*

1 North Broadway P.O. Box 832 White Plains, New York 10601
(914) 997-1444

1,500.00 - First
1,500.00 - R.L.
1,500.00 - R.L.

November 14, 1985.

William Groh, Esq.
143 East State Street
Trenton, NJ 08619

Re: 201-W-4498
Peekskill Plaza Partnership -to-
US Trust Company

Dear Mr. Groh:

In confirmation of my telephone conversation with your office today, please be advised that the survey submitted by Salvatore Romeo is not suitable for title insurance purposes.

An inspection of the premises under examination reveals that variation(s) which may effect our insurance are missing from the survey map.

Should you have any questions concerning this matter, please do not hesitate to contact the undersigned.

Very truly yours,

Margaret Miller
Assistant Vice President

cc: Robinson, Silverman, Pearce,
Aronsohn & Berman, Esqs.
Att.: Michael Zients, Esq.

MM/ss



First American Title Insurance Company of New York

Proposed Insured:

Title No.: 201-W-4498

Purchaser

Effective Date: 10/9/85

Redated: 1/20/86 ~~1/24/86~~ 1-37-86

Mortgagee *Emil Landau*
Trust Company, its successors and assigns

Amount of Insurance

Fee \$

Mortgage ~~\$2200,000.00~~ 1,400,000

THIS COMPANY CERTIFIES that a good and marketable title to the premises described in Schedule A, subject to the liens, encumbrances and other matter, if any, set forth in this certificate may be conveyed and/or mortgaged by:

AS TO THE LAND:

MICHAEL N. APPELL; BERNARD KOSTER; FRED EELSON; AND FRANK ZELLER,
(Title acquired by deed from Peekskill Plaza Partnership dated 6/27/80, recorded 7/9/80 in Liber 7642 cp 90.)

AS TO THE BUILDINGS:

PEEKSKILL PLAZA PARTNERSHIP

(Title acquired by deed from Emil Landau dated 6/27/80, recorded 7/9/80 in Liber 7642 cp 94.)

Premises described in Schedule "A" are known as:

Address:

County: Westchester

City: Peekskill

District:

Town:

Section: 31

Block: 1

Lot: 2, 2.1

1. FINANCING STATEMENT is presented to a Filing Officer for filing pursuant to the Uniform Commercial Code.

2. Debtor(s) (Last Name First) and Address(es): **PEEKSKILL PLAZA PARTNERSHIP**
Whiteshead Road
Wrenceville, NJ

3. Secured Party(ies) Name(s) and Address(es): **EMIL LANDAU**
One Pamela Lane
New Rochelle, NY 10804

4. The Debtor is a transmitter.

5. For Filing Officer: Data, Tick, No. Filing Office

6. This Financing Statement covers the following types (or items) of property:

All fixtures and articles of personal property, including but not limited to steam and hot-water boilers, glass registers, radiators, water closets, refrigerators, and electrical fixtures, pipes, carpets, rugs, shades and all other furnishings in the building erected upon the premises, now or hereafter attached to, or used in connection with the premises, shall be deemed to be and remain and form a part of the realty and are covered by the lien of said mortgage, together with all replacements of any of the above described articles of personal property, electrical or fixtures, and all additions thereto to be permanently installed in and attached to the building or building as part of the real property.

7. Products of the Collateral are also covered.

8. Describe Real Estate Here: ☐ This statement is to be indexed in the Real Estate Records.

9. Name of a Record Owner

10. This statement is filed without the debtor's signature to perfect a security interest in collateral (check appropriate box)

☒ under a security agreement signed by debtor authorizing secured party to file this statement, or

☐ which is proceeds of the original collateral described above in which a security interest was perfected, or

☐ acquired after a change of name, identity or corporate structure of the debtor, or ☐ as to which the filing has lapsed, or

☐ already subject to a security interest in another jurisdiction:

☐ when the collateral was brought into the state, or ☐ when the debtor's location was changed to this state.

Peekskill Plaza Partnership

Signature(s) of Debtor(s) Gen. Partner

Signature(s) of Secured Party(ies)

Filing Officer Copy Numerical

STANDARD FORM - FORM UCC-1 - Approved by Secretary of State of New York, Pennsylvania & Texas

RECEIVED
 WESTCHESTER COUNTY CLERK

80-03853

253398

250A-1001

000901
 7-9-80

(4)

NOTICE UNDER MECHANIC'S LIEN LAW

To the Clerk of the County of Westchester
and to all others to whom it may concern:

PLEASE TAKE NOTICE, that KING ELECTRICAL CONTRACTORS, INC., a New York corporation having its principal place of business at 532 North High Street, Mount Vernon, New York as lienor, has and claims a lien for the principal and interest of the price and value of the labor and materials hereinafter mentioned upon the buildings and appurtenances and upon the real property upon which the same may stand, or be intended to stand, hereinafter described pursuant to the Lien Law of the State of New York and hereby states upon information and belief:

1. The name and address of lienor's attorneys are Ross & Cohen, Esqs., 655 Third Avenue, New York, New York 10017.

2. The owner of the real property is Peekskill Plaza Partnership, c/o Arthur Schwartz, 690 Whitehead Road, Lawrenceville, New Jersey, and the interest of the owner as far as known to the lienor is owner in fee.

3. The name of the person by whom the lienor was employed and with whom the contract was made is Master

On 11

Environmental Business Corporation d/b/a Mebco Industries, Inc.,
136-23 34th Avenue, Flushing, New York.

3a. The name of the person to whom the lienor furnished materials and for whom the lienor performed services is Master Environmental Business Corporation d/b/a Mebco Industries, Inc.

4. The labor performed included, but was not limited to, electrical wiring and modifications.

The materials furnished included, but was not limited to, electrical conduit, wire, fuses, circuit breakers and related hardware and electrical supplies.

5. The agreed price and value of the labor performed and materials furnished by the lienor is \$94,404.00.

6. The amount unpaid to the lienor for said labor performed and material furnished is \$32,404.00 for which amount this lien is filed.

7. The date upon which the first item of work and labor was performed was May 29, 1984. The date upon which the first item of material was furnished was May 29, 1984. The date upon which the last item of work and labor was performed was

September 21, 1984. The date upon which the last item of material was furnished was September 21, 1984.

8. The property subject to the lien is known and described as the A&P Food Store, Peekskill Plaza Mall on Welcher Avenue and South Street, Peekskill, New York being in Section 31, Block 1, Lots 2 and 2-1 as shown on the Land and Tax Map of the County of Westchester.

9. The said labor and materials were performed and furnished for and used in the improvement of the real property hereinbefore described. That eight months have not elapsed, dating from the last item of work performed, or from the last items of materials furnished, or since the completion of the contract, or since the final performance of the work, or since the final furnishing of the materials for which this lien is claimed.

Dated: New York, New York
November 12, 1984

KING ELECTRICAL CONTRACTORS, INC.

By: Steven Corrado

0450B

STATE OF NEW YORK)
COUNTY OF WESTCHESTER) ss.:

Steven Corrado being duly sworn, deposes and says:

That deponent is the President of KING ELECTRICAL CONTRACTORS, INC. the lienor herein; that deponent has read the foregoing Notice of Lien and knows the contents thereof, and that the same are true to deponent's own knowledge, except as to the matters therein stated to be alleged upon information and belief, and that as to those matters deponent believes them to be true.

The reason this verification is made by deponent is that deponent is an officer to wit, the President of KING ELECTRICAL CONTRACTORS, INC. which is a domestic corporation and deponent is familiar with the facts and circumstances herein.

The sources of deponent's information and the grounds of deponent's belief as to all matters not herein stated upon deponent's knowledge are as follows: books and records of the corporation.

Steven Corrado
Steven Corrado

Sworn to before me this
day of November, 1984

[Signature]
Notary Public

DOMINIO J. LOFARO
Notary Public, State of New York
No. 60-7584350
Qualified in Westchester County
Term Expires March 30, 1985

KING ELECTRICAL CONTRACTORS, INC.,
a New York corporation.

-against- Lienor,

BEESKILL PLAZA PARTNERSHIP, c/o
Arthur Schwartz, 690 Whitehead
Road, Lawrenceville, New Jersey,

-and- Owner.

ENVIRONMENTAL BUSINESS CORPORATION
c/o/a MEBCO INDUSTRIES, INC.,
136-23 34th Avenue, Flushing, New
York.

Contractor.

Amount of Lien: \$32,404

NOTICE UNDER MECHANIC'S LIEN LAW

ROSS & COHEN
ATTORNEYS AT LAW
653 THIRD AVENUE
NEW YORK, N. Y. 10017

FILED
1984 NOV 28 AM 9:08
ANDREW J. SPANO
WESTCHESTER COUNTY CLERK

FILED
1984 NOV 28 AM 2:18
ANDREW J. SPANO
WESTCHESTER COUNTY CLERK

First American Title Insurance Company of New York

TAX SEARCH

Title No:
201-W-4498

Assessed Valuation:

Land ² \$55,440. ^{2.1} 10,500.
Total \$263,835. 74,287.

Please see
tax map attached.

Assessed To: Peekskill Plaza Partnership

Address : South St. & Welcher

County of Westchester

Town

School District: Hendrick Hudson

Section 31 Block 1 Lot 2, 2.1

CITY COMPTROLLER

1985 City Tax ² \$32,591.53 ^{2.1} 9,176.67 Year: 1/1-12/31
1st \$16,295.77 Pd. 4,588.34 Pd. Lien: 4/1
2nd \$16,295.76 ~~Open~~ 4,588.33 ~~Open~~ Due : 4/1-10/1

1985/86 School \$17,199.32 4,842.74 Year: 7/1-6/30
1st \$ 8,599.66 Pd. 2,421.37 Pd. Lien: 8/1
2nd \$ 8,599.66 Open 2,421.37 Open Due : 8/1-2/1

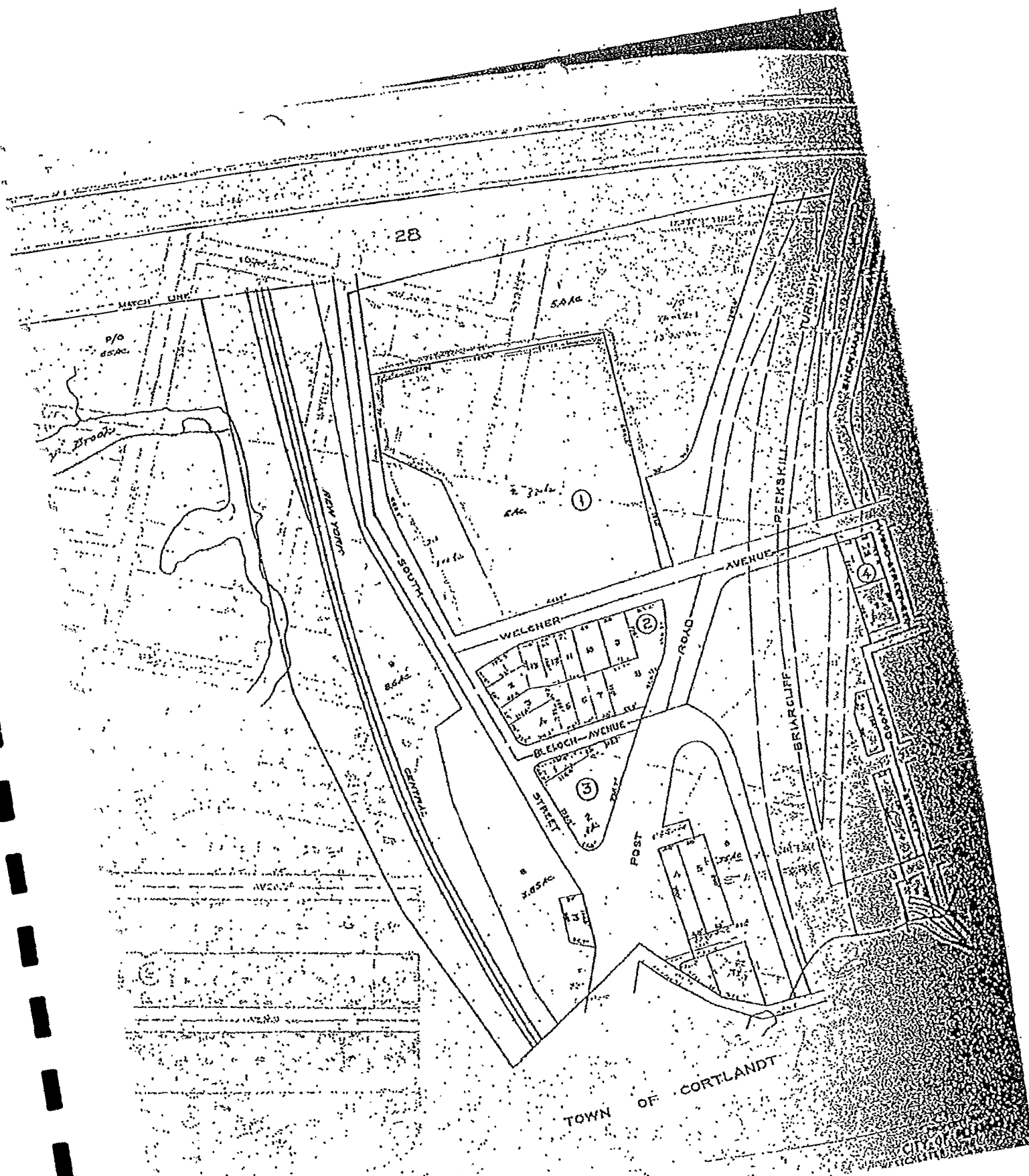
Water Account # 21-1083.01 Water to 7/19/85 \$ 20.25 Open 10/28/85
.02 \$151.54 Open 120.25 open
.03 \$208.37 Open 132.86 open
.04 \$ 20.25 Open 202.42 open
.05 \$ 52.20 Open 20.25 open
.06 \$181.10 Open 28.15 open
.08 \$ 20.25 Open 367.31 open
.09 \$ 20.25 Open 20.66 open
.10 \$100.44 Open 21.07 open
37.26 open

Our policy does not insure against such items which have not become a lien up to the date of closing, or installments due after such date. Neither our tax search nor our policy covers any part of streets on which the premises to be insured abut.

If the tax lots above mentioned cover more lots than the premises under examination, this fact will be noted herein. In such case, the interested parties should take the necessary steps to make the tax map conform to the description to be insured;

11
13

2025 open
146.32 open



Westchester County

City Taxes

City	Tax	Fiscal Year Begins	Due Dates	Lien Dates
Mount Vernon	City	January 1	January and July 1	January 1
	School	July 1	July and January 1	July 1
	County & Sewer	January 1	April 1	January 1
New Rochelle	City	January 1	January and July 1	When confirmed
	School	July 1	October and April 1	When confirmed
Peekskill	City	January 1	February, April, July and October 1	February 1
	School	July 1	July and February 1	July 1
Rye	City	January 1	February and May 1	February 1
	City School District	July 1	August and November 1	August 1
	School District #1	July 1	August and November 1	August 1
White Plains	City	July 1	July and January 1	July and January 1
	School	July 1	July and January 1	July 1
Yonkers	Sewer	January 1	April 1	January 1
	City Sewer	July 1	July, October and January 1	When confirmed

*State, County and Sewer District Taxes levied by the County of Westchester, but collected by the Cities of White Plains and Yonkers. In the City of Yonkers, such taxes become a lien when confirmed and are due April 1, with a fiscal period of January 1 to December 31.

TOWN AND SCHOOL TAXES (except in the above listed Cities)

In all towns School Taxes are due in two payments, the first payment due September 1, and the second due January 1, except. The School Taxes for Eastchester and Scarsdale are due in one payment on September 1. In the Village of Bronxville they are payable with the Village Tax on June 1 and December 1. They become a lien in all Towns on September 1 unless directed otherwise by resolution of the Town Board. The Fiscal Year for all School Taxes will commence on July 1.

The Town Tax for the Town of Harrison becomes a lien on February 1 and is payable in two payments. These payments become due on February and June 1. They also obtain payment for the State, County and Sewer District Taxes for a Fiscal Year beginning on January 1—Due Date and Lien Date of April 1. In all other Towns, the Town Tax is Due and becomes a Lien on April 1. In all Towns, the Fiscal Year begins on January 1.

Village Taxes

Village	Fiscal Year	Due Dates	Lien Dates
Ossining	January 1 to December 31	January and July 1	January 1
Portchester	April 1 to March 31	May and November 1	May 1
Scarsdale	June 1 to May 31	July 1	July 1
Eighteen Other Villages	June 1 to May 31	July 1	June 1

The entire annual Village Tax is due on June 1 for the following Villages: Buchanan, Crotch, Dobbs Ferry, Elmford, Larchmont, Pesham, Pesham Manor, The Village Tax is to be paid in two payments on June and December 1 for the following Villages: Ardsley, Briarcliff Manor, Bronxville, Hastings, Irvington, Mamaroneck, Mount Kisco, Tuckahoe, North Tarrytown, Pleasantville and Tarrytown.

Westchester Taxes Penalties are added if the tax is not paid within 30 days from the date it is payable. Inquiry should be made as to interest and penalties.

*The School Taxes for the Town of Eastchester are now permitted to be paid in halves. The first half is due September 1, and the second half is due on January 1.

THIS INFORMATION IS BELIEVED TO BE ACCURATE BUT IS NOT GUARANTEED.

*First American Title Insurance Company
of New York*

Title No.
201-W-4498

MUNICIPAL DEPARTMENT SEARCHES AND STREET REPORT

Any searches or returns reported herein are furnished FOR INFORMATION ONLY. They will not be insured and the company assumes no liability for the accuracy thereof. They will *not be continued* to the date of closing.

Search made by Department of Buildings:

Shows no violations found. No C. of O. found for this Bldg.
by City of Peekskill Bldg. Dept. Copy of C. of O. herewith
for shed.

Search made by Fire Department:

Shows no violations found.



Street Report:

Main St. & Gran Ave. are public streets.

STREET VAULTS

In New York City, if there is a STREET VAULT, it is suggested that applicant investigate possible unpaid license fees by the City of New York for the use of such vault, because the right to maintain it IS NOT INSURED, nor does the Company insure that the vault charges have been paid.

No. 138

CITY OF PEEKSKILL, N. Y.

Certificate Of Occupancy and Compliance

Issued 8/1 1963 To Evelyn Miller
Permit No. 2947 Location 1701 Main St Peekskill
Tax Map _____ Section 30 Block 13 Lot 2
Use District C-3 General Commercial

This Certifies that the

(Description of Bldg.) 1 Story Open Shed

situated on the above mentioned premises has been completed and complies with the provisions of the Building Code and Zoning Ordinance of the City of Peekskill and permission is hereby granted for its occupancy for the purpose specified below

Storage and Display

or that permission for such use has been granted by the Zoning Board of Appeals by order dated _____ 19____

Type of Variance _____

Special Conditions Subject to construction of Dry well for Roof
Drains as Required by Westchester County Dept. of Public
Works

Dry well ok
9/5/63
James C. McAloney
Building Commissioner

Sealed

MEMORANDUM OF LEASE

LESSOR:

Frank Zeller 12.5% interest
Michael N. Appell 35% interest
Bernard Koster 26.25% interest
Fred Felson 26.25% interest

Dated: 6/27/80
Recd: 7/22/80
Liber 7643 mp 793

LESEE: Peekskill Lava Partnership

First American Title Insurance Company of New York

Title No. _____

REPORT OF CLOSING

By whom closed _____ Date Closed _____

Transaction closed at office of _____

The persons present were:

Name

Address

Interest

The identity of the persons executing the papers delivered on closing was established by the following evidence:

This policy is to be sent

Check Box if
Mlge. Policy
delivered on closing

(See) To _____
Address _____

(Mlge.) - To _____

Address _____

The following instruments were executed and delivered:

1. Kind of instrument _____

By _____

To or With _____

Dated _____ Recorded _____

L. _____ P. _____

Consideration or amount \$ _____

CLOSER: (a) Always PRINT Name of Insured fully and completely and write all other names legibly. (b) Where there are two persons, indicate whether husband or wife. (c) If first names are unusual indicate whether male or female. Abstract fully terms of payment of any mortgage delivered on closing. Show addresses of all grantees and individual mortgagees.

Recitals in instrument, and other pertinent information or instructions must be noted here.

(See Over)

Continuation - Page 2

As to Lease recorded in L 7643, of 793
~~Lease~~ DATED 6-27-40

Lessee: MICHAEL N. APPEL

BERNARD KOSTER

FRED FELSON

FRANK ZELLEN

LESSEE: PECKKILL PLAZA PARTNERSHIP

*First American Title Insurance Company
of New York*

Title No. 201-W-4498

SCHEDULE A

ALL of their undivided right, title and interest in all that lot, piece or parcel of land with the buildings and improvements thereon, situate lying and being in the City of Peekskill, County of Westchester and State of New York, at the intersection of the highway known as the New York and Albany Post Road, with the highway known as Welcher Avenue, being bounded and described as follows:

Insure
BEGINNING at a point at the corner formed by the intersection of the easterly side of Lower South Street, and the northerly side of Welcher Avenue as widened and now laid out;

thence running along the northerly side of Welcher Avenue as widened and now laid out, North $79^{\circ} 50' 20''$ East 470.90 feet to the Westerly line of land now or formerly of James W. Husted and a stone wall;

thence running along said last mentioned land and the center line of said stone wall, North $6^{\circ} 34'$ West 321.31 feet, and North $4^{\circ} 24'$ West 172.54 feet to the southerly line of land now or formerly of Atlantic and Pacific Novelty Co. and a stone wall;

running along said last mentioned land and the center line of said stone wall, South $88^{\circ} 17' 50''$ West 337.38 feet, and South $87^{\circ} 09' 50''$ West 190.43 feet to the easterly side of Lower South Street;

thence running along said easterly side of Lower South Street South $0^{\circ} 08' 00''$ East 266.88 feet, South $10^{\circ} 42' 00''$ East 38.41 feet, and South $22^{\circ} 59' 20''$ East 271.82 feet to the point of BEGINNING.

The policy to be issued under this report will insure the title to such buildings and improvements erected on the premises which by law constitute real property.

FOR
CONVEYANCING
ONLY

TOGETHER with all the right, title and interest of the party of the first party, of, in and to the land lying in the street in front of and adjoining said premises.



Hereinafter set forth are additional matters which will appear in our policy as exceptions from coverage unless disposed of to our satisfaction prior to the closing or delivery of the policy.

- A) Liber 7351 cp 646;
B) Liber 7351 cp 657;
C) Liber 7351 cp 688;
D) Liber 7351 cp 679;
E) Liber 7351 cp 600;
F) Liber 7388 cp 342; and
G) Liber 7354 cp 183.

-CONTINUED-

*First American Title Insurance Company
of New York*

Title No. 201-W-4498

SCHEDULE B (Continued)

The following judgment must be satisfied of record in the Westchester County Clerk's Office:

JUDGMENT

Dawes, a Division of May Sports Inc. Amount: \$2,366.83
850 Sherman Avenue Dock: 10/12/83
Hamden, CT Perf.: 18008/83
V. Court: Westchester
County
Michael Appel, d/b/a North Ave. Bicycles Atty: Corwin & Friedman,
556 North Avenue Esqs.
New Rochelle, New York 84 South Broadway
Vol. 172 White Plains, NY

Title to personal property is not insured, but the U.C.C. Financing Statement shown on the attached schedule must be satisfied and discharged of record as it is filed so as to affect the real property. (See photocopy annexed).

One (1) Mechanics Lien shown on the attached schedule must be discharged of record in the County Clerk's Office. (See photocopy annexed)

Proof is required as to the date of formation of Peekskill Plaza Partnership, a partnership, and as to the names of all parties or persons interested as partners therein and proof shown that there has been no change in the composition of the partnership by either adding or dropping partners since its formation.

10. The Articles (Agreement) of Partnership of Peekskill Plaza Partnership must be submitted to the Title Company for consideration prior to closing. In the absence of articles all of the partners must consent in writing or join in the execution of the closing deed or mortgage.

NOTE - Deed to Michael N. Appel, et al, recorded in Liber 7642 cp 99 contains a recital conveying land only and NOT the buildings or improvements situated on the premises therein.

12. Memorandum of Lease recorded in Liber 7643 cp 793 and the Terms and conditions of the underlying lease referred to therein.

*First American Title Insurance Company
of New York*

Title No.

SCHEDULE B (Continued)

Except 13.. Memorandum of Lease in Liber 6931 cp 147 and Amendments thereto (Lessee is the Great Atlantic and Pacific Tea Company, Inc.)

except 14. The Chase Manhattan Bank, N.A. must consent to the mortgage and must subordinate its lease to the Mortgage to be insured herein.

except 15. The Great Atlantic and Pacific Tea Company, Inc. must consent to the Mortgage and must subordinate its lease to the Mortgage to be insured herein.

16. If the ~~amount~~ ^{amount} insured hereunder is to be insured for the full amount of the ~~amount~~ ^{amount} the following exceptions will be added:

except A) Estopped ~~the~~ ^{the} to be procured from the holders of prior mortgages.

omit B) The insured mortgagee must join in the mortgage for the express purpose of assuming the obligations of paying the principal and interest indebtedness owing on the prior mortgages.

omit C) Liability hereunder is limited to the amount disbursed by the mortgagee, and interest thereon, but such liability shall not include disbursements made subsequent to the date of the policy:

1) Unless such disbursement increased the debt under the insured mortgage and are made by the mortgagee out of its own funds pursuant to an obligation to disburse or protect the lien of the insured mortgage and

2) Unless the insured mortgage provides that such disbursements are secured thereby and, as to obligations or rights of prior lienors, that the mortgagee shall be subrogated to the right of said prior lienors:

Note: Upon review with policy to the Company, Exceptions # 14, 15 & 16 A will be omitted per clearing.

*First American Title Insurance Company
of New York*

Title No.

SCHEDULE B (Continued)

AMENDED SURVEY READING

Survey made by John Salvatore Romeo dated 3/9/85, last brought to date 11/18/85 shows premises are improved by Three (3) 1 story brick buildings; also shows the following:

- Ext
- A) Curbs partly on southerly and westerly portions of premises herein and partly on Welcher Avenue and Lower South Street; Policy excepts rights and easements of others by reason thereof;
 - B) Overhead wires, poles and vent on Lower South Street; said wires cross westerly portion of premises; Policy excepts rights and easements of others by reason thereof;
 - C) Open drain grate inside southerly record line; Policy excepts rights and easements of others by reason thereof;
 - D) Chain link fence generally on northerly line;
 - E) Chain link fence east of easterly line an undisclosed distance;
 - F) Edge of macadam pavement south of northerly line and west of easterly line an undisclosed distance;
 - G) Utility poles south of northerly line. Note - Inspection made 11/22/85 shows an additional pole and utility wires extending from said poles to premises adjoining on the north; Policy excepts rights and easements of others by reason thereof;
 - H) Transformer inside easterly record line; Policy excepts rights and easements of others by reason thereof;
 - I) Manholes within record lines; Policy excepts rights and easements of others by reason thereof;
 - J) Light poles inside southerly, westerly and easterly record lines; Policy excepts rights and easements of others by reason thereof;
 - K) Drainage intakes, pipes and storage pit throughout premises;
 - L) Macadam extends onto Welcher Avenue and Lower South Street.

*First American Title Insurance Company
of New York*

Title No. 201-4498

SCHEDULE B (Continued)

SURVEY READING

Until survey is received and read into title, policy will
except any state of facts an accurate survey may show.

The distances, dimensions and locations of the boundary lines
of the premises herein described cannot be guaranteed without
a survey acceptable and approved by the Law Department of
this Company.

Superseded

*First American Title Insurance Company
of New York*

Title No. 201-W-4498

MORTGAGES

A
Mortgagor: E. Landau Industries, Inc.

Amount: \$ 450,000.00

Dated: 5/7/74

Mortgagee: Prudential Savings Bank

Recorded: 5/20/74

Liber: 7593

Record:

Page: 340

Reel:

Except

-continued-

*First American Title Insurance Company
of New York*

Title No. 201-W-4498

**MORTGAGES
(continued)**

B
Mortgagor: Emil Landau

Amount: \$ 400,000.00

Dated: 8/3/76

Mortgagee: Prudential Savings Bank

Recorded: 8/9/76

Liber: 7759

Record:

Page: 628

Reel:

Consolidated with mortgage in Liber 7593 mp 340 to form
a lien for \$838,909.13.

Exapt

-continued-

First American Title Insurance Company
of New York

Title No. 201-W-4498-

MORTGAGES
(continued)

Mortgagor: Peekskill Plaza Partnership

Amount: \$ 2,100,000.00

Dated: 6/27/80

Mortgagee: Michael N. Appell - 35%;
Bernard Koster - 26.25%;
Fred Felson - 26.25%; and
Frank Zeller - 12.50%

Recorded: 7/9/80

Liber: 8168

Record: Page: 116

Reel:

*This is a second mortgage which includes in its jurisdiction
the assignment of the first mortgage recorded in L 7547, pg 340, L 7759, pg 624, L 8168, pg 116*

ASSIGNMENT OF MORTGAGE

Michael N. Appell - 35%;
Bernard Koster - 26.25%;
Fred Felson - 26.25%; and
Frank Zeller - 12.50%

Dated: 11/30/80

Recorded: 1/5/81

Liber: 8215

Page: 335

to

Bank Leumi Trust Company
of New York
579 5th Avenue
New York, NY

Assigns mortgage recorded in Liber 8168 pg 116 x

as collateral security

-continued-

*On it for
This transaction may
be confirmed*

*First American Title Insurance Company
of New York*

201-W-4498

MORTGAGES OF RECORD
(continued)

B
Mortgagor: Peekskill Plaza Partnership Amount: \$ 675,000.00

Dated: 6/27/80

Mortgagee: Emil Landau

Recorded: 6/27/80

Liber: 8168

Page: 153

MODIFICATION AGREEMENT

Michael N. Appell, Bernard J. Koster, Fred H. Felson,
Frank Zeller, and Arthur Schwartz

Dated: 11/2/81

Recorded: 8/23/82

Liber: 8366

Page: 311

with

Emil Landau

Modifies mortgage recorded in Liber 8168 mp 153

ASSIGNMENT OF MORTGAGE

Emil Landau

Dated: 8/27/82

to

Recorded: 9/13/83

Gertrude Landau

Liber: 8372

Page: 571

Assigns mortgage recorded in Liber 8168 mp 153

*On 11/19/81 for Phil
Transferee only
Subordinated*

ASSIGNMENT OF LEASE

E Landau Industries Inc. and
John Saekel

Dated: 5/1/74

Recorded: 9/16/76

to

Liber: 7351

Prudential Savings Bank

Page: 679

As additional security for consolidated mortgages for \$850,000 to the party of the first part assigns to the party of the third part all rights, title and interest in and to lease dated 3/10/65 made by Peekskill Plaza Corporation to the party of the second part.

ASSIGNMENT OF LEASE

E Landau Industries Inc. and
On-The-Dot Cleahers, Inc.

Dated: 5/6/74

Recorded: 9/16/76

to

Liber: 7351

Prudential Savings Bank

Page: 690

As additional security for consolidated mortgages for \$850,000 to the party of the first part assigns to the party of the third part all rights, title and interest in and to lease dated 3/18/60 made by Peekskill Plaza Corporation to the party of the third part.

ASSIGNMENT OF LEASE

E Landau Industries Inc. and
On-The-Dot Cleaners Inc.

Dated: 5/6/74

Recorded: 4/28/77

to

Liber: 7388

Prudential Savings Bank

Page: 342

Re: Recording of Liber 7351 op 690 to add corporate seal of the party of the second part.

ASSIGNMENT OF LEASE

E Landau Industries Inc. and Great
Atlantic & Pacific Tea Company Inc.

Dated: 5/6/74

Recorded: 9/29/76

to

Liber: 7354

Prudential Savings Bank

Page: 183

Assigns right title and interest in and to lease to the party of the second part.

ASSIGNMENT OF LEASE

E Landau Industries Inc. and
Benjamin Martorano

Dated: 5/5/74

to

Recorded: 9/16/74

Prudential Savings Bank

Liber: 7351

Page: 646

As additional security for consolidated mortgage for \$850,000 to the party of the first part assigns to the party of the third part all rights, title and interest in and to lease made by Peekskill Corporation to Benjamin Martarano dated 3/30/67.

ASSIGNMENT OF LEASE

E Landau Industries Inc. and
George Olson

Dated: 5/6/74

to

Recorded: 9/16/74

Prudential Savings Bank

Liber: 7351

Page: 657

As additional security for consolidated mortgage for \$850,000 to the party of the first part to the party of the third part rights, title and interest in and to lease dated 5/1/72 made by Peekskill Plaza Company to James T. Kell.

ASSIGNMENT OF LEASE

E Landau Industries Inc. and
Chase Manhattan Bank N.A.

Dated: 5/6/74

to

Recorded: 9/16/74

Prudential Savings Bank

Liber: 7351

Page: 668

As additional security for consolidated mortgages for \$850,000 to the party of the first part assigns to the party of the third part all right, title and interest in and to lease dated 11/5/73 made by Peekskill Plaza Corp. to the party of the second part.

-continued-

APPENDIX 3

**FINAL PROJECT REPORT FOR THE
INSTALLATION OF ACTIVE
SOIL DEPRESSURIZATION SYSTEMS AT
THE BLUE MOUNTAIN PLAZA 20
WELCHER AVENUE, PEEKSKILL, NEW
YORK**

Prepared for:

Kurtsam Realty
Box 383 Quaker Ridge Road
Croton On Hudson, New York 10520

Prepared by:

Mr. David Grammer
RAdata, Inc.
27 Ironia Road
Flanders, New Jersey
Phone: (973) 927-7303 Fax: (973) 927-4980
E-Mail: dg@radata.com

December 27, 2007

ACTIVE SOIL DEPRESSURIZATION SYSTEMS

THE BLUE MOUNTAIN PLAZA, 20 WELCHER AVENUE, PEEKSKILL, NEW YORK

1.0 INTRODUCTION AND BACKGROUND

RAdata, Inc. has completed the installation of Active Soil Depressurization Systems (ASDS) at the Blue Mountain Plaza located at 20 Welcher Avenue in Peekskill, New York owned by Kurtsam Realty. This work commenced on November 13, 2007 and was completed on November 14, 2007.

Indoor air sampling was previously conducted at the site by Bell Environmental, 230 Route 206, Flanders, New Jersey. Analytical data from indoor air and soil gas samples are from September 2002, June 2003 and April 2005, and were provided to the client. These samples were collected from the sub-slab area, in the basement, and first floor of the Mountain Dry Cleaners and Anthony's Family Restaurant. One outdoor location adjacent to Anthony's Family Restaurant basement window was also collected. The Mountain Dry Cleaners and Anthony's Family Restaurant have been impacted by the vapor intrusion of contaminants emanating from ground water and soil contamination. The results of these samplings show numerous volatile organic compounds (VOCs) that exceed the New York State Department of Health (NYDOH) background concentrations at all three sample depths; sub-slab, basement and first floor.

1.1 Site Description

The subject facility is a one-story masonry building with a basement. The basement is partitioned into two sections, one beneath The Mountain Dry Cleaners and one beneath Anthony's Family Restaurant, by drywall over wooden studs. Each section of the basement is approximately 80 feet long and 20 feet wide. There is a concrete slab with masonry outer walls. The facility is a one story building approximately 18 feet high with a brick exterior. The age of the foundation is unknown. The building has a flat roof. Total square footage of indoor space is approximately 3,300 square feet.

1.2 Site Contaminants

Air sampling conducted at the Blue Mountain Plaza property prior to the installation of the Active Soil Depressurization Systems detected the following contaminants exceeding the New York State Department of Health (NYDOH) background concentrations.

Benzene	Carbon Tetrachloride
Chloroform	Chloromethane
Ethylbenzene	Ethyl Alcohol
Styrene	cis-1,2-dichloroethene
Dichlorodifluoromethane	MTBE
N-hexane	Tetrachloroethene
Toluene	Trichloroethene
Trichlorofluoromethane	Total Xylenes
1,2,4 - trimethylbenzene	

2.0 MITIGATION APPROACH

The primary method for reducing soil borne pollutants is Active Soil Depressurization Systems (ASDS). Active Soil Depressurization Systems prevent soil borne pollutants entry into the building by creating a negative pressure (vacuum) beneath the slab through fan activated PVC pipe routed to the exterior of the building and vented above the roofline. It is at this location where these pollutants are quickly diluted by the ambient air. The Active Soil Depressurization Systems also removes moisture and other soil pollutants that enter the building, therefore, improving the overall air quality of the building.

The Active Soil Depressurization Systems are installed so as to coordinate with other building components especially those that require maintenance or clearance of any type. All mitigation components are installed to facilitate servicing, maintenance and repair or replacement of other equipment components both inside and outside of the building. All systems, materials and equipment were installed level, plumb, parallel or perpendicular to other building systems and components unless otherwise specified. All fan components are UL or equivalent rated.

3.0 INSTALLATION OF PERMANENT ACTIVE SOIL DEPRESSURIZATION SYSTEMS

Based on data gathered during the sub-slab vacuum testing the decision was made by RAdata, Inc. to install a total of two (2) permanent ASDS systems. One (1) ASDS system is being used to treat Mountain Dry Cleaners and one (1) system is being used to treat Anthony's Family Restaurant. Systems locations can be found on the As Built Drawing (Attachment 1). After four-inch (4") holes where core drill cut through the concrete floor, about one cubic foot of soil was removed from beneath the slab using a shop vac.

Soil was placed in a 55-gallon drum for future disposal. These holes were piped with three-inch (3") Schedule 40 PVC pipe routed through the window at the rear of the Mountain Dry Cleaners. Window was replaced using plywood. Split-ring hangers, clevis hangers and two-hole straps were used to attach the pipe securely to the building. The exhaust of three-inch (3") Schedule 40 PVC pipe was routed above the roofline at that location. The vent fans are mounted directly to the PVC pipe slightly below the roofline using rubber couplers. Fans units are two (2) Dynavac GP 501 fans (70-140 Watts), maximum pressure of 4.00 Inches of Water, capable of evacuating 95 Cubic Feet Per Minute at 1" static pressure (Attachment 2). Conte Electric, 34 Brook Street, Croton-On-Hudson, New York 10520 (914-271-6636) provided electrical service to the fan units. Each fan unit is wired to circuit Number 14 in the electrical box found in the Mountain Dry Cleaners. Electrical service disconnects are located on the exterior of the building directly next to the fan units. To provide constant evaluation of system performance Mini-magnehelic pressure gauges were installed in a conspicuous location on the PVC pipe along with audio alarms, which sound when fan failure has occurred. All components of the ASDS systems are clearly labeled as to their function. RAdata, Inc. contact information labels are attached to each system and are clearly visible.

3.1 Vacuum and Air Stream Measurements of Permanent Active Soil Depressurization Systems

Bell Environmental conducted sub-slab vacuum measurements using a digital Micro manometer after systems installation to determine sphere of influence of the two ASDS systems. Six locations were used to determine this sphere of influence within the buildings, three locations in the Mountain Drycleaners and three locations in Anthony's Family Restaurant, and one location outside of Anthony's Family Restaurant (Attachment 3). The goal of a successful ASDS system is to create a negative pressure of between -.015 and -.02 Inches of Water Column. Bell Environmental also conducted measurements of the outbound effluent air-stream, the purpose of which was to determine whether operation of the ASDS requires a New York State Department of Health (NYDOH) air permit for discharge of volatile organic compounds (VOCs). There results are found on Attachment 4.

3.2 Conclusions of Vacuum and Air-Stream Measurements for Permanent Active Soil Depressurization Systems

The sub-floor vacuum created by the two (2) ASDS systems was found to be at or slightly below the goal of a successful ASDS system, which is to create a negative pressure of between -.015 and -.02 Inches of Water Column. Only one of the sub-floor vacuum results met the criteria of the desired vacuum to produce a reversal of the sub-slab soil gas.

Raw emission rates for VOCs were calculated by Bell Environmental to determine whether or not the ASDS had a potential to emit compounds above the NYDOH

Threshold Reporting Limits during normal operating conditions. Based on the results of their investigation and the operating parameters at the time of site inspection, the ASDS operation may meet the requirements for an NYDOH air permit (Attachment 4).

4.0 DISPOSAL OF SOIL AND CONSTRUCTION DEBRIS

The one 55-gallon container of soil removed from beneath the floor, as well as construction debris, was disposed of by Clean Ventures, 2001 South First Street, Elizabeth, New Jersey, (908-355-5800). The drums were removed from the site on December 19, 2007. A copy of the disposal manifest can be found as Attachment 5.

5.0 PERMITS

A copy of the City of Peekskill Building and Electrical permits for the installation of the ASDS can be found as Attachment 6.

6.0 WORKER HEALTH AND SAFETY

A copy of our Worker Health Plan For Installing the Active Soil Depressurization Systems can be found as Attachment 7. Phase Associates, LLC, 316 Eisenhower Parkway, Livingston, New Jersey, 973-597-0750, prepared this document for RAdat, Inc.

7.0 OPERATIONS AND MAINTENANCE

The building Owner is responsible for ongoing system monitoring and maintenance as well as verification sampling of indoor air quality. RAdat, Inc. should conduct an inspection at six-month intervals after the installation has been completed. After the first year, a reduced inspection frequency may be appropriate and changed to once a year. Comprehensive maintenance procedures can be found as Attachment 8.

8.0 WARRANTIES

RAdat, Inc. warranties all system components and workmanship for a period of three (3) years from the date of installation.

9.0 CONCLUSION

The goal of a successful ASDS system is to create a negative pressure of between -.02 and -.015 Inches of Water Column. Sub floor vacuum measurements reflect an acceptable vacuum in only one of the six interior test holes (Attachment 3). However, all vacuum readings are very close to the established goal. Post treatment test results will be the defining factor as to the success of the ASDS systems.

10.0 CONTACT INFORMATION

GENERAL CONTRACTOR

Radata, Inc.
27 Ironia Road
Flanders, New Jersey 07836
973-927-7303 Telephone
973-917-4980 Fax
dg@radata.com

SUB CONTRACTORS

Electrical Service

Conti Electric, Inc.
34 Brook Street
Croton-on-Hudson 10520
914-271-6636

Environmental Consulting

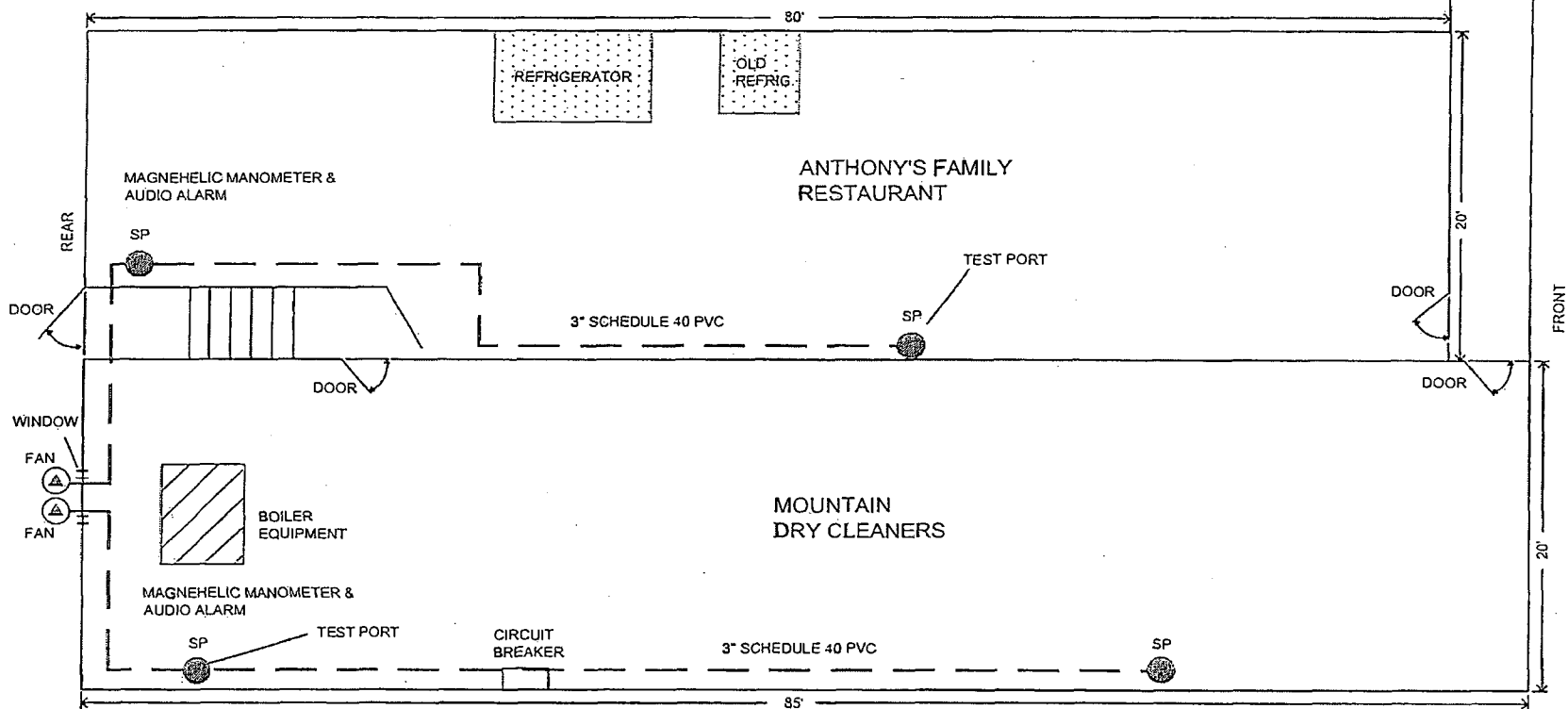
Brownfield Associates, Inc.
P.O. Box 600
Belmar, New Jersey 07719
732-280-1420

Waste Disposal

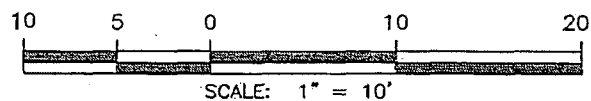
Clean Ventures, Inc.
201 South 1st Street
Elizabeth, NJ 07206
908-355-5800

ATTACHMENT

1



NOTES: FANS ARE APPROXIMATELY
15' ABOVE GRADE



LEGEND

-  3" SCHEDULE 40 PVC
-  FAN LOCATION (RADON AWAY-GP501)
-  SUCTION POINT LOCATION (SP)

FIGURE 1

AS-BUILT DRAWING
20 WELCHER AVENUE
PEEKSKILL, NEW YORK



Equity Environmental Engineering LLC
4 Gold Mine Road
Flanders, NJ 07836
Phone: (973) 527-7451

CHK	REV	DWG BY	DATE
		TAF	12-10-07

RAdata, Inc.

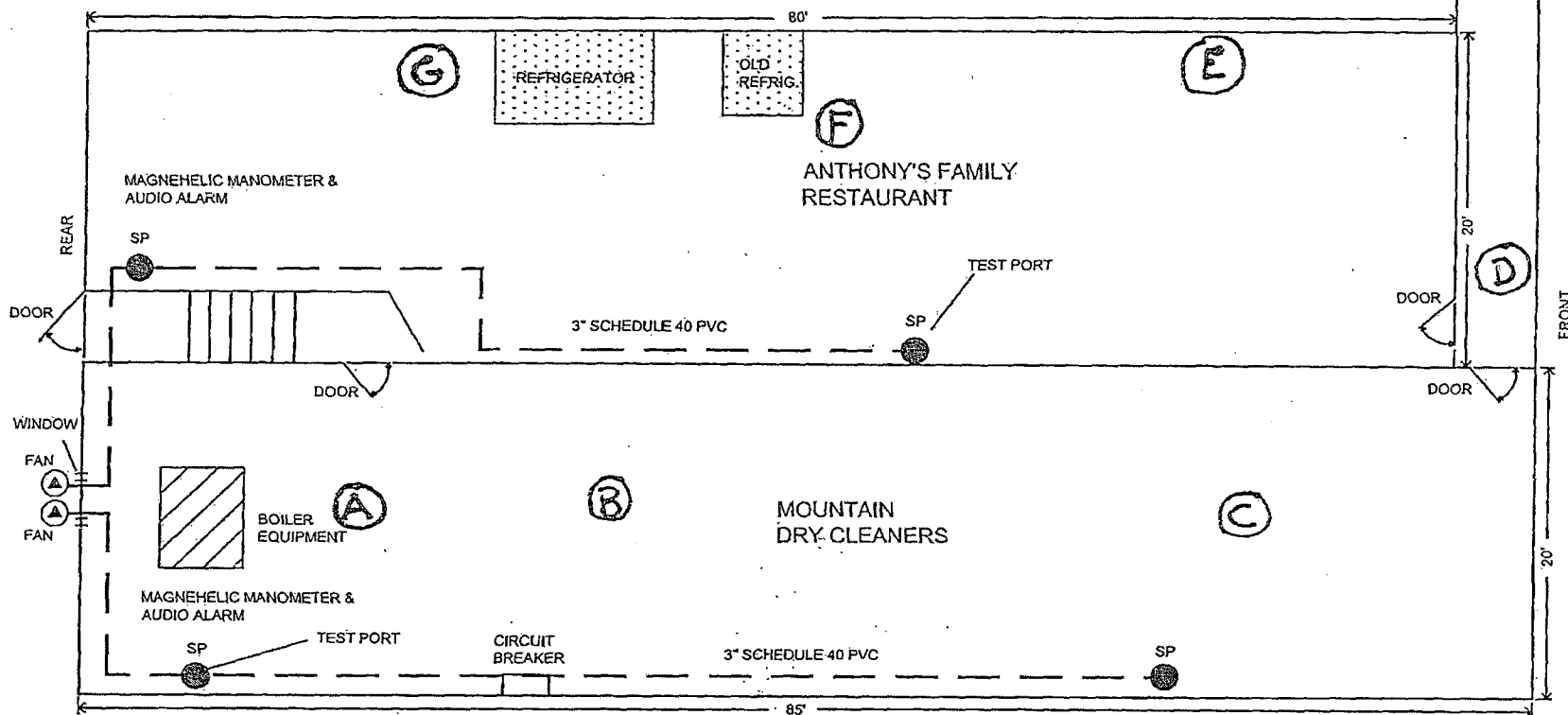
27 Ironia Road, Unit 2
Flanders, NJ 07836
973-927-7303

ATTACHMENT

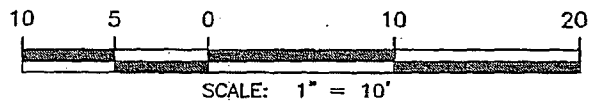
2



Vacuum Testing Locations



NOTES: FANS ARE APPROXIMATELY
15' ABOVE GRADE



LEGEND

- 3" SCHEDULE 40 PVC
- ⊙ FAN LOCATION (RADON AWAY-GP501)
- SUCTION POINT LOCATION (SP)

FIGURE 1

AS-BUILT DRAWING
20 WELCHER AVENUE
PEEKSKILL, NEW YORK



Equity Environmental Engineering LLC
4 Gold Mine Road
Flanders, NJ 07836
Phone: (973) 527-7451

DATE
12-10-07

RAdata, Inc.

27 Ironia Road, Unit 2
Flanders, NJ 07836
973-927-7303

ATTACHMENT

3

**POST TREATMENT SUBFLOOR
VACUUM TESTING FOR THE BLUE
MOUNTAIN PLAZA 20 WELCHER
AVENUE, PEEKSKILL, NEW YORK**

Test Hole # A	-0.29 inches of water column
Test Hole # B	-0.14 inches of water column
Test Hole # C	-0.12 inches of water column
Test Hole # D	-0.04 inches of water column
Test Hole # E	-0.08 inches of water column
Test Hole # F	-0.13 inches of water column
Test Hole # G	-0.14 inches of water column

ATTACHMENT

4

THESE RESULTS ARE
UNAVAILABLE IN
RADATA'S JOB FOLDER.
PLEASE REFER TO BELL
ENVIRONMENTAL'S FILES
ON THIS PROJECT

ATTACHMENT

5

Cycle Chem, Inc

201 South First Street Elizabeth, NJ 07206 PHONE: 908-355-5800, FAX: 908-355-0562

Land Disposal Restriction Notification and Certification Form

Generator: BLUE MOUNTAIN PLAZA SHOPPING CENTER
EPAID: NYR000064378

Manifest Number: 227231

Manifest Tracking

Number: 00112682 1076

The EPA hazardous wastes identified below must be treated to the applicable treatment standards Set forth In 40 CFR 268.40.

EPA Waste Code Information

Manifest Line	Waste-water?	EPA Codes
Page 1 Line 1	No	F002, F003, F005

Spent Solvent Constituents

Manifest Line	Solvents
Page 1 Line 1	F002: tetrachloroethylene F003: xylene F005: benzene

Underlying Hazardous Constituents

(None present unless identified below.)

Manifest Line	Constituents
---------------	--------------

I certify that all information submitted On this Land Disposal Restriction and Certification Form is accurate and complete, to the best of my knowledge and information.

Signature: 

Name: John Conely

Title: Mitigation Specialist

Date: 12/19/07

ATTACHMENT

6

TO BE KEPT ON THE WORK

CITY OF PEEKSKILL
DEPARTMENT OF PUBLIC WORKS
BUILDING DEPT.

Municipal Building, Peekskill, N. Y.

No 10933

PERMIT

Fee 125⁰⁰/₁₀₀

Permission is hereby granted to INSTALL AN ACTIVE Soil Depressurization System
Location 20 Welch Ave Peekskill NY 10566
Owner Kurtam Realty 383 Quaker Ridge Road Cortor or Hudson NY Address
Contractor RADATA INC Address 27 Ironia Rd Amherst NJ
Dimensions (overall) 40' x 40' Materials Schedule 40 PVC

Foundations { Thickness below grade Materials below grade
Thickness above grade Materials above grade

Footings: Dimensions Depth below grade ft. in.

Thickness of { Outside Walls 1st 2nd 3rd 4th 5th 6th
Division Walls

Stories High Distance from Street line

Kind of Roof Material of Roof

Size of joists 1st 2nd 3rd 4th 5th 6th

Special Conditions issued subject to notes on plan and field inspections

Date of issue Nov 1 2027 Expiration date Nov 1 2028

Director of Public Works

This Permit is granted upon the express condition that every person acting under same shall conform to the representations of the application thereof as well as all Building, Zoning and other Ordinances of the City of Peekskill and Statutes of this State. This permit must be kept on the work to which it applies at all times during working hours, and may be revoked at any time for a breach of its conditions.

ALL PLUMBING, GAS, PLUMBING
INSTALLATIONS SHALL BE DONE
BY PLUMBER - LICENSED WITH
WESTCHESTER CO. UNDER
CITY OF PEEKSKILL PERMIT.

SHALL BE DONE BY ELECTRICIAN
LICENSED WITH WESTCHESTER CO.
UNDER CITY OF PEEKSKILL PERMIT.

*No oversight, error or omission on
the part of the Building Inspector or
his Representative shall legalize the
erecting, construction, alteration,
removal, use or occupancy of a building
or structure that does not conform to
the provisions of the Building Code
and the Building Zone Ordinance.

System for

Mt. Cleaners

Anthony Family Restaurant
20 Welcher Av.

ADJACENT
STORE

80'

Refrigerator

OFFICE

ANTHONY'S
FAMILY
RESTAURANT

FRONT
LOT

SIDE
LOT

IF FANS ARE IN
VEHICLE TRAFFIC AREAS (Delivery Trucks)
They may need to be protected or lit-up

MT. CLEANERS
need Ltr with "as built" certify installation complies with the
provisions of the NYS mechanical, plumbing & Building codes

FAN
LOCATION

FANS
Mounted
Approx.
10' Above
grade

PIPE WILL BE SCHEDULE 40 3" or 4"

CAST IRON PIPE WILL
BE USED IN OCCUPIED
SPACE

DRIVE

Permit # 10933

11/07 KB

X Suction Points
Proposed Suction Points

BY THIS CERTIFICATE OF COMPLIANCE THE
NEW YORK ELECTRICAL INSPECTION SERVICES

150 White Plains Road, Suite 104, Tarrytown, NY 10591

CERTIFIES THAT

Upon the application of:

Conte Electric Inc. - Victor Conte
34 Brook Street
Croton-on-Hudson, NY 10520

Upon premises owned by:

Kurtsam Realty Corp -
20 Welcher Avenue
Peekskill, NY 10566

Located at: 20 Welcher Avenue, Peekskill, NY 10566

Application Number: 10067092

Certificate Number: 10067092

Section: 42.8

Block: 1

Lot: 1

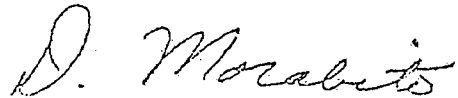
BDC: 144

Permit Number: 10934

A visual inspection of the electrical system at this premise described as a Commercial occupancy, wherein the premises electrical system consisting of electrical devices and wiring, described below, located in/on the premises at: 20 Welcher Avenue, Peekskill, NY 10566

Basement, Outside, was inspected in accordance with the NYS and NFPA 70-99 and the detail of the installation, as set forth below, was founded to be in compliance therewith on the 11 Day of December 2007.

Name	Date	Quantity	Rating	Circuit	Type
Receptacle		2			Convenience
Switch		2			A/C



Officer: Nick Morabito

This certificate may not be altered in any way and is validated only by the presence of a raised seal at the location indicated.
This certificate is valid for work performed before date of inspection only.

jmccue

4

Friday, December 14, 2007

Page 1 of 1



David Greener
Director of City Services

Edward A. Khuns III
Water Superintendent

Howard D. Wessells Jr.
General Foreman / Deputy Director

CITY OF PEEKSKILL
DEPARTMENT OF CITY SERVICES
Bureau of Public Works

Vince Powell
Asst. Water Superintendent

Victor Pizzella
Building Inspector

Cert. Number 1492

Fee \$50.00 Ck# 26468

**CERTIFICATE
OF
COMPLIANCE**

DATE ISSUED	December 24, 2007	TO	Radata, Inc.		
PERMIT NUMBER	10938	LOCATION	20 Welcher Avenue		
	SECTION 42.8	BLOCK	1	LOT	1
USE DISTRICT	C - 1 A				

The following described construction project complies with all applicable laws and permission is hereby granted for its

USE: Soil depressurization system.

APPROVED


Brian O. Havranek

Building Inspector

ATTACHMENT

7

PROVIDED AS
A SEPARATE
DOCUMENT

ATTACHMENT

8



RAdata, Inc.

27 Ironia Road, Unit 2
Flanders, New Jersey 07836
973-927-7303 973-927-4980 fax
1-800-447-2366

OPERATIONS AND MAINTENANCE SCHEDULE FOR THE ACTIVE SOIL DEPRESSURIZATION SYSTEMS FOR THE BLUE MOUNTAIN PLAZA PEEKSKILL, NEW YORK

The blower units used in the active soil vapor depressurization systems are maintenance free and require no attention until the U-Tube manometers indicate the fan unit has failed.

90 DAY SERVICE: RAdata, Inc. recommends that the magnehelic gauges be observed and checked for proper blower functions every 90 days to ensure the proper function of the fan units. Refer to As Built Drawings provided by RAdata, Inc. for system locations

YEARLY SERVICE: It is recommended that the active soil depressurization systems be serviced on a yearly basis. That work will consist of:

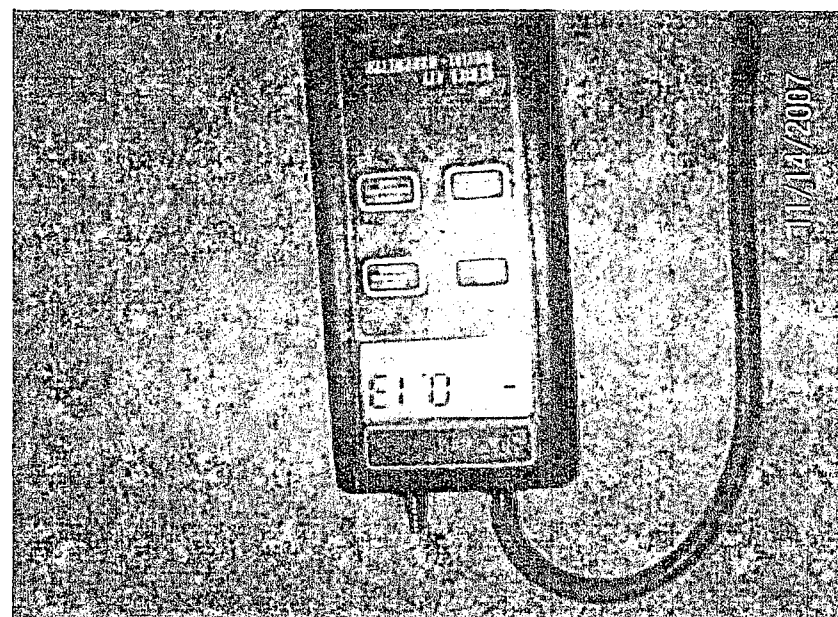
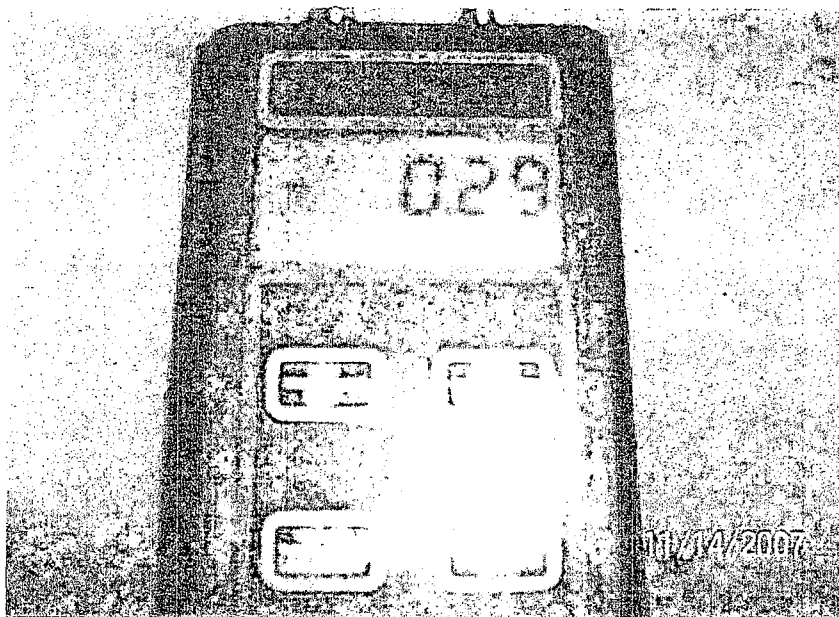
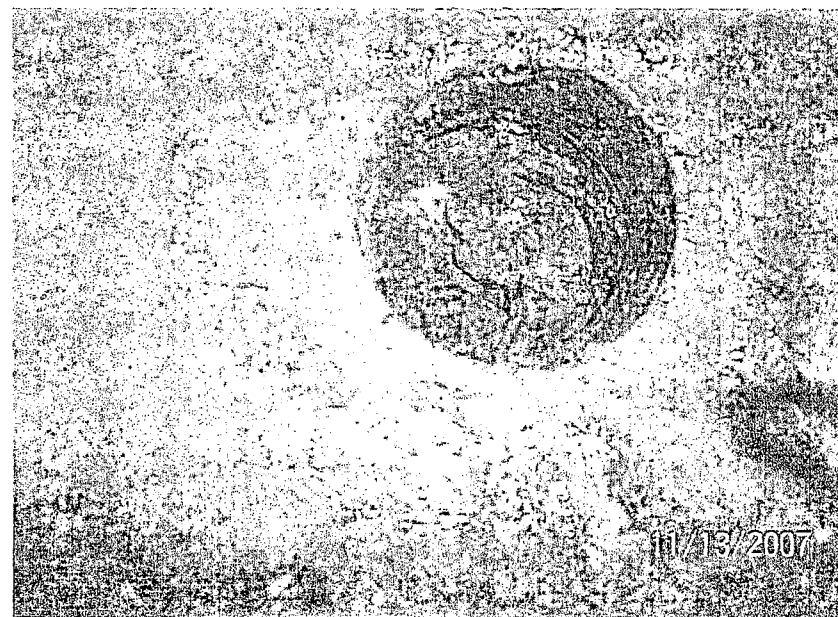
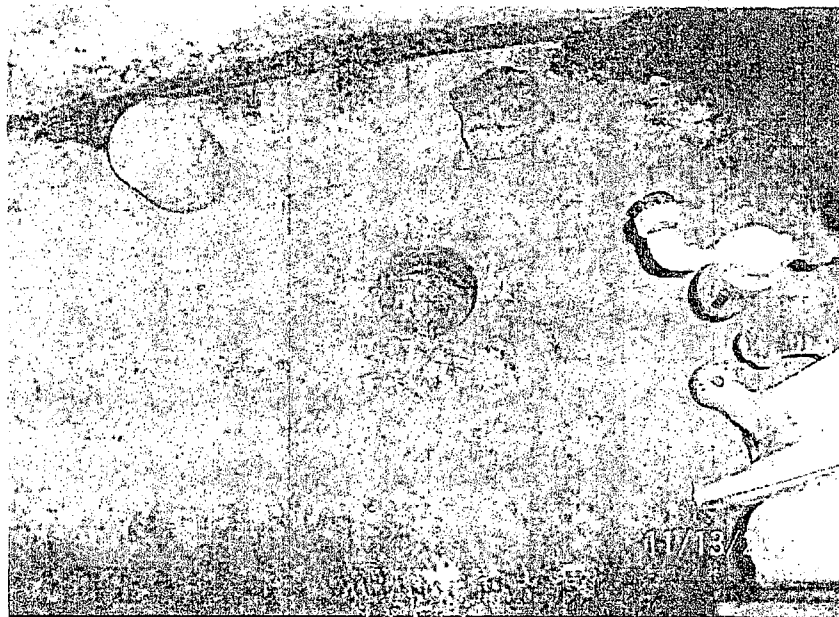
- Removing and cleaning fan, note fans condition
- Adjust worm drive
- Check pipe clamps for breakage
- Check for moisture in pipe and make corrective adjustments if necessary
- Re-caulk all floor penetrations where accessible
- Check magnehelic manometers. Replace if necessary
- Register vacuum measurements
- Check electrical connections
- Measurement sub-floor communication
- Add system labeling if necessary
- Check all fire barriers
- Check for moisture under floor

Please contact our office for additional information regarding service on the active soil depressurization systems.

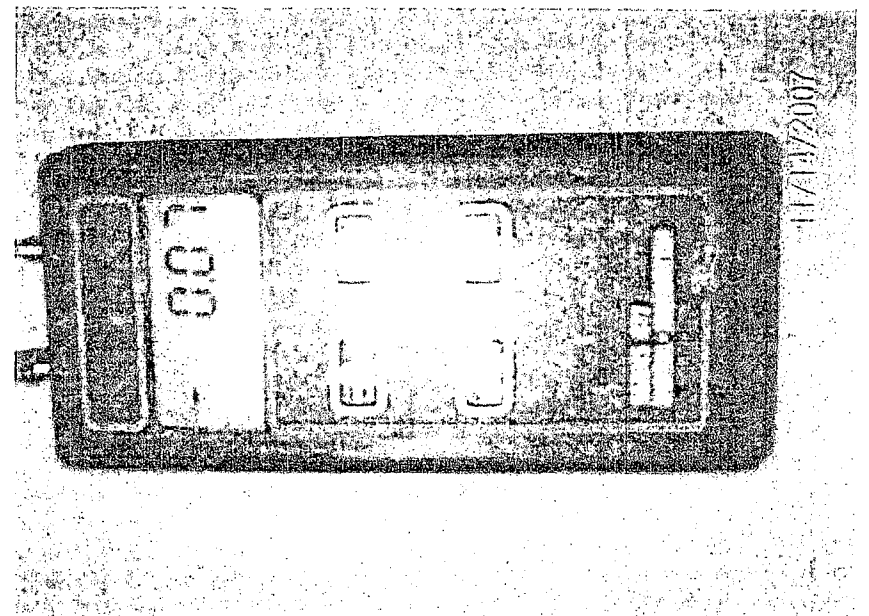
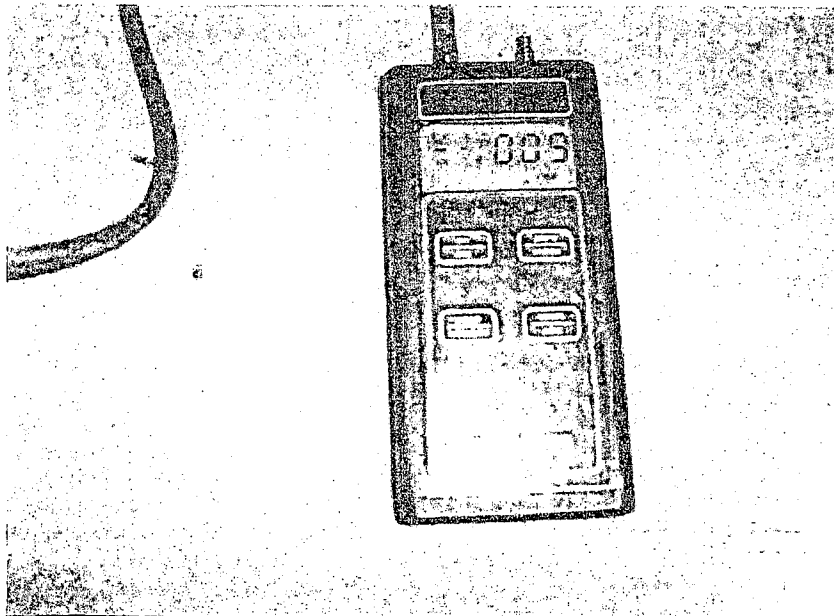
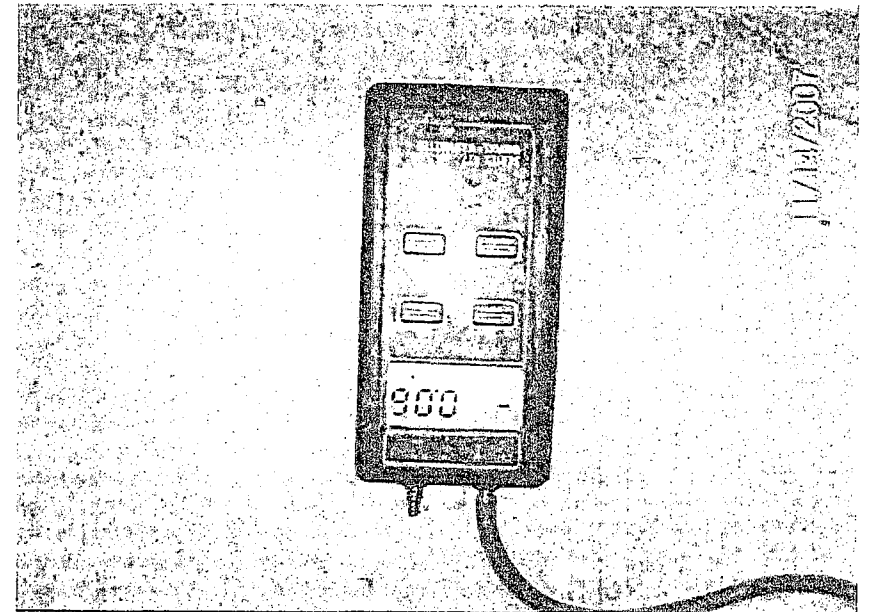
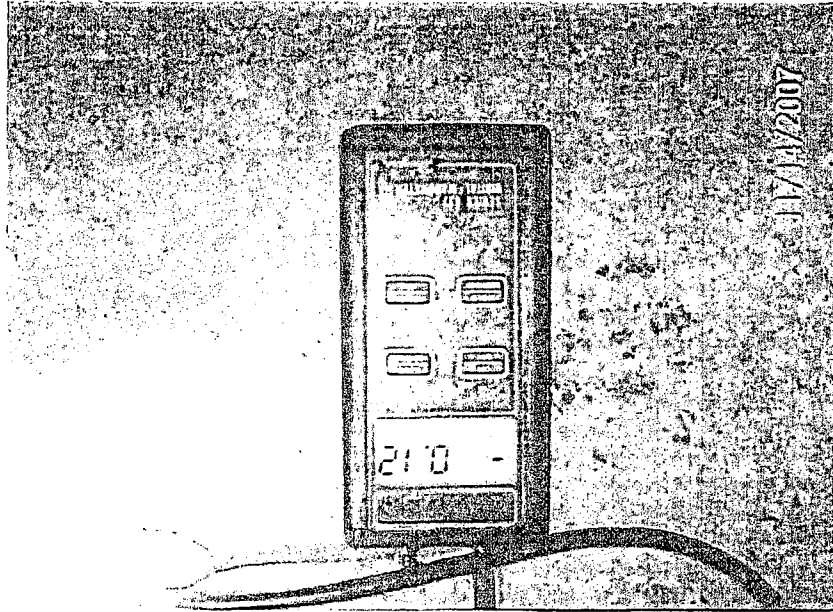
ATTACHMENT

9

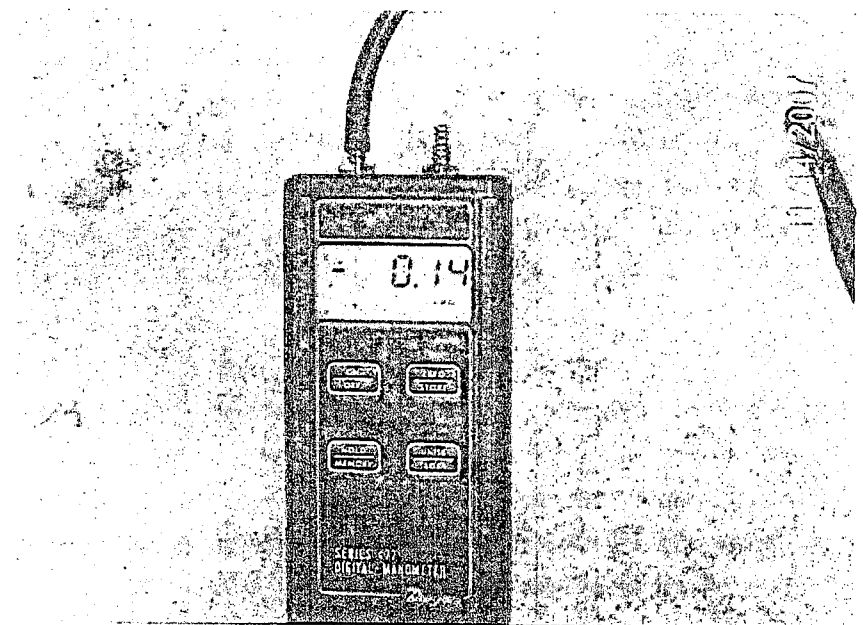
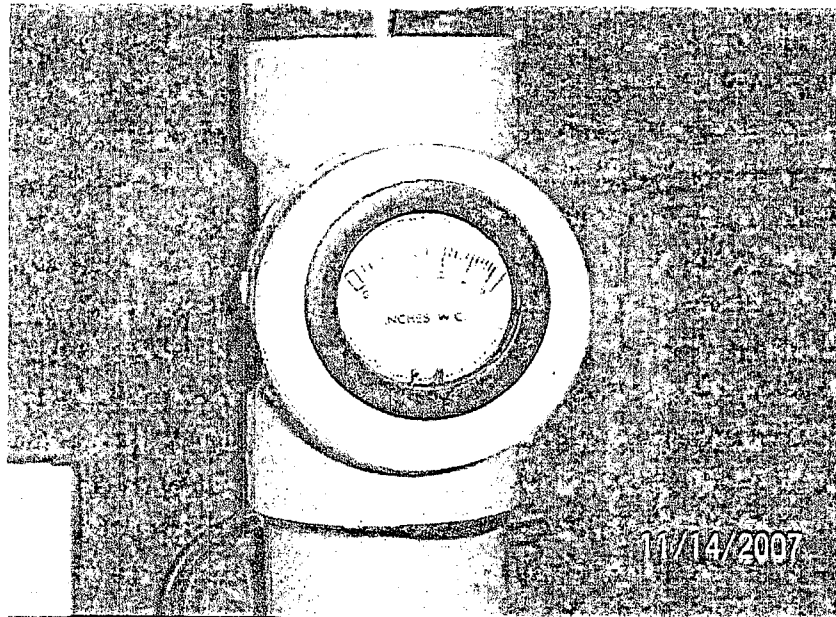
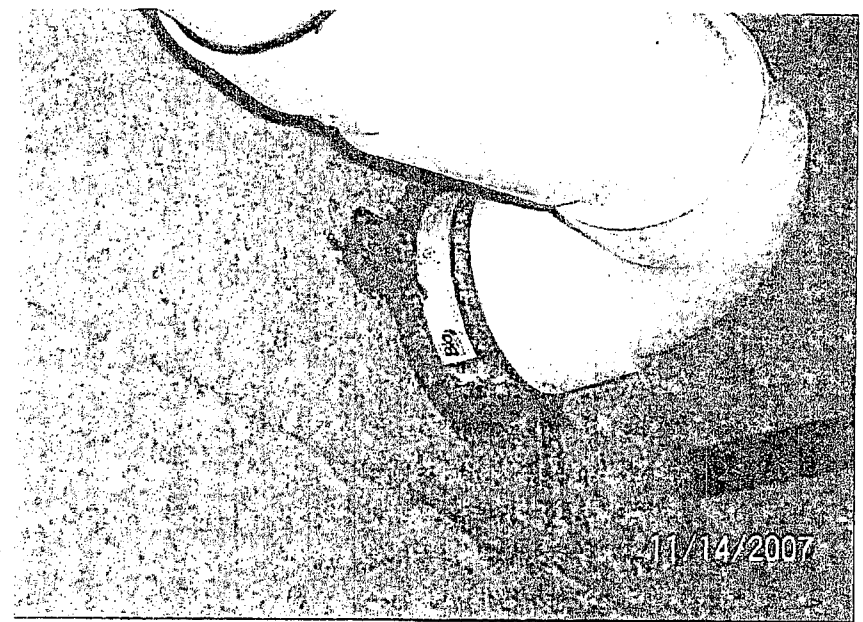
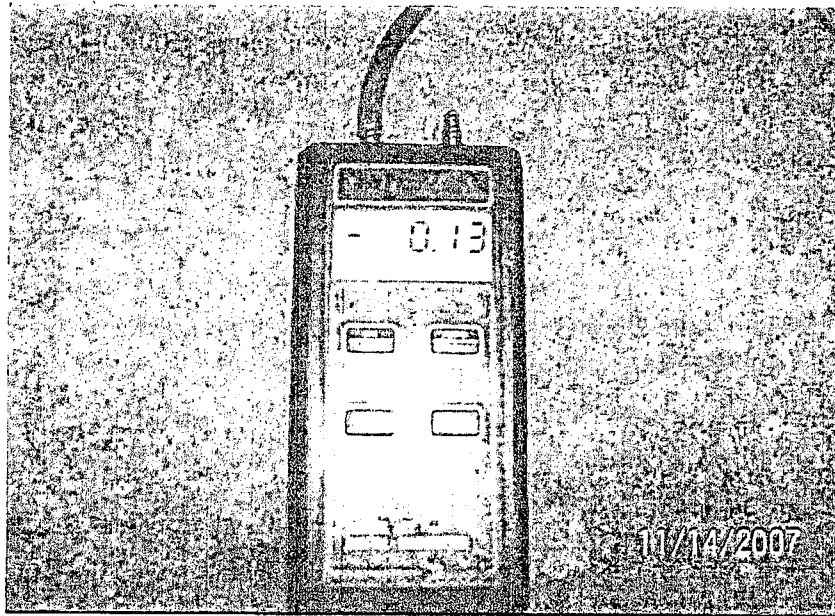
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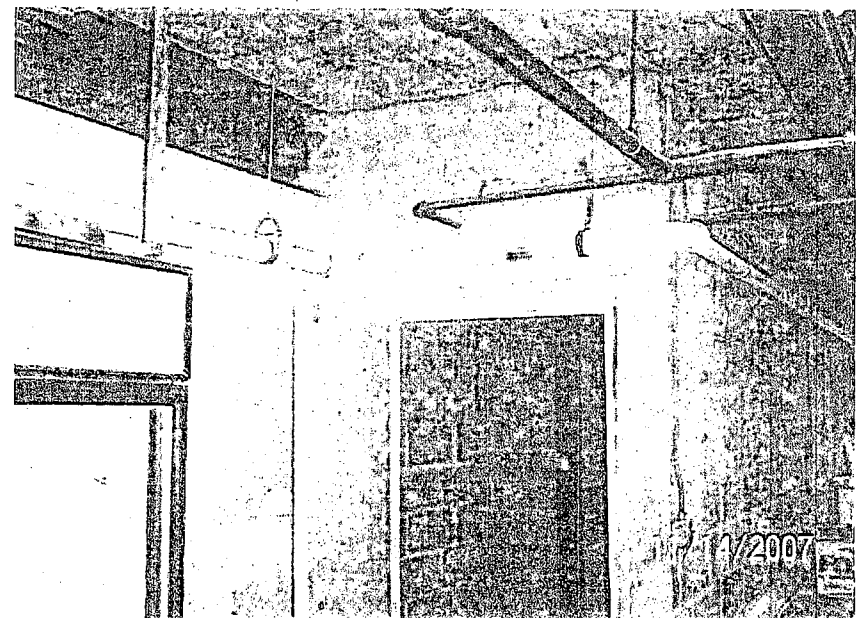
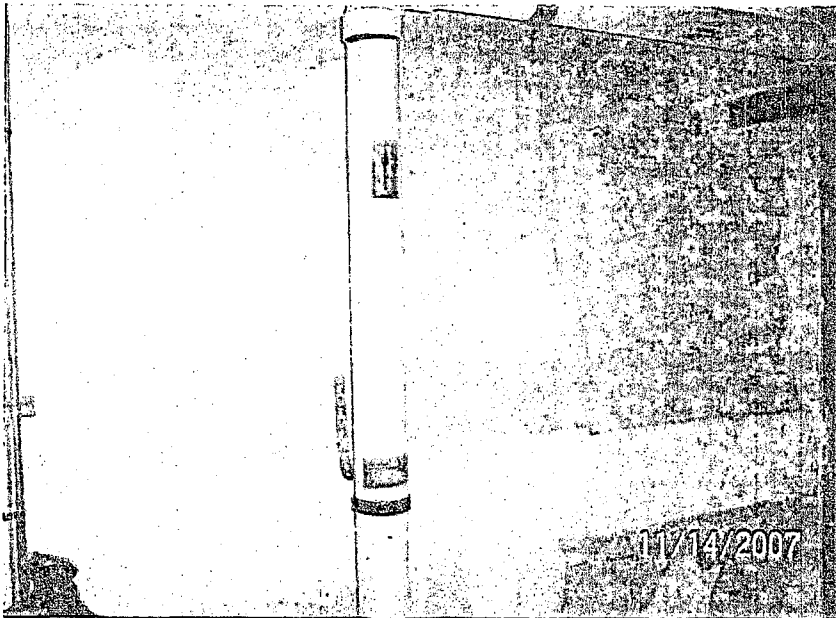
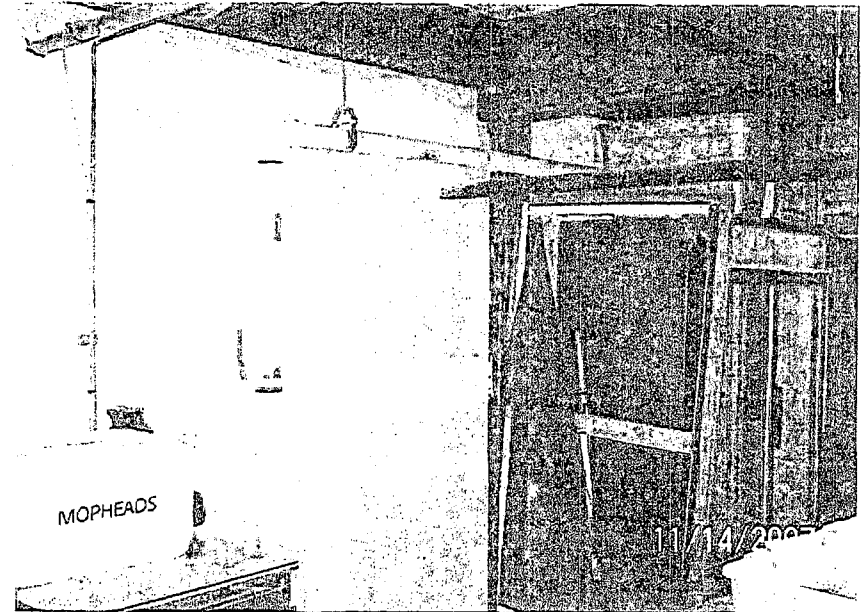
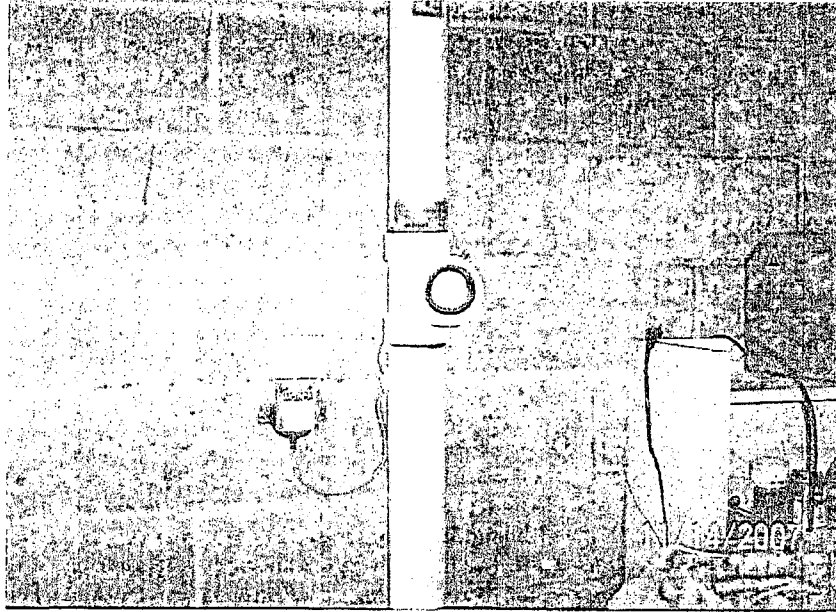
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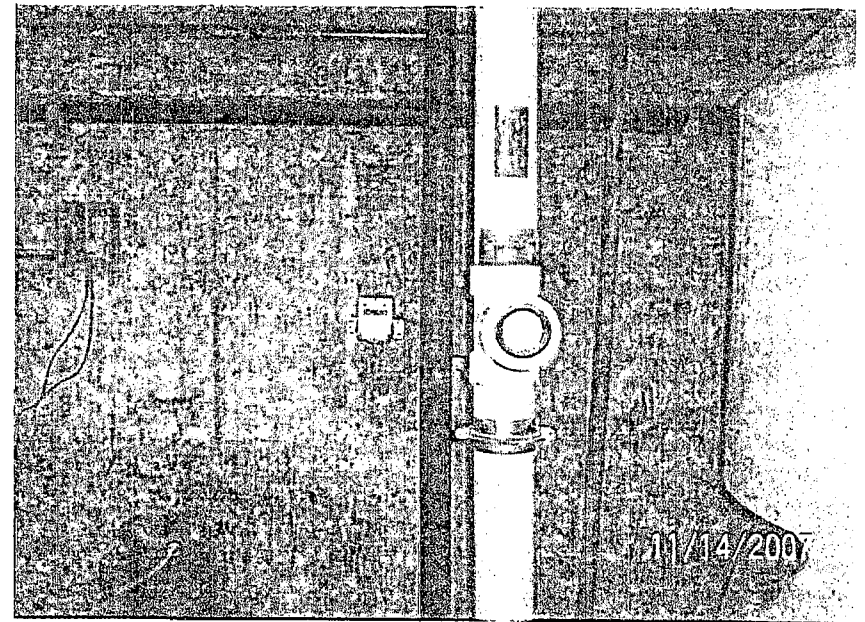
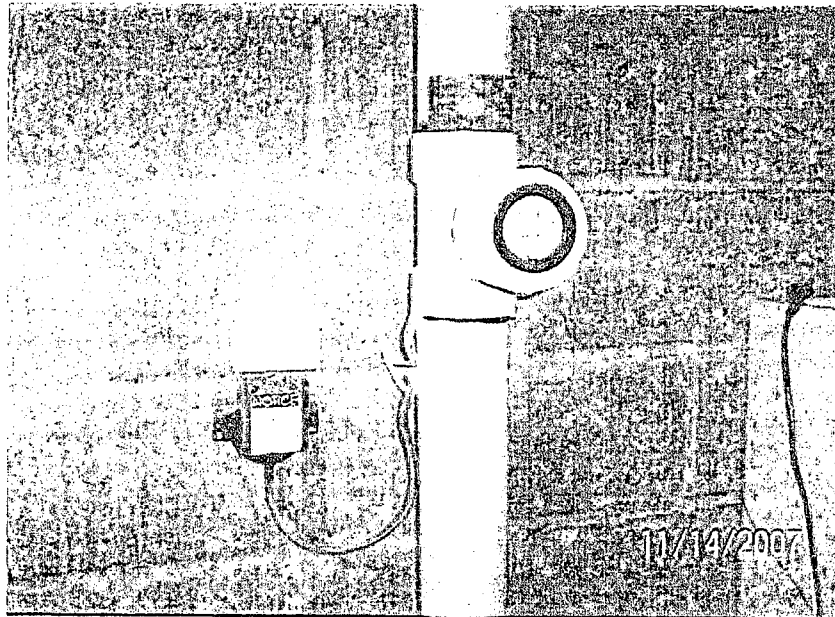
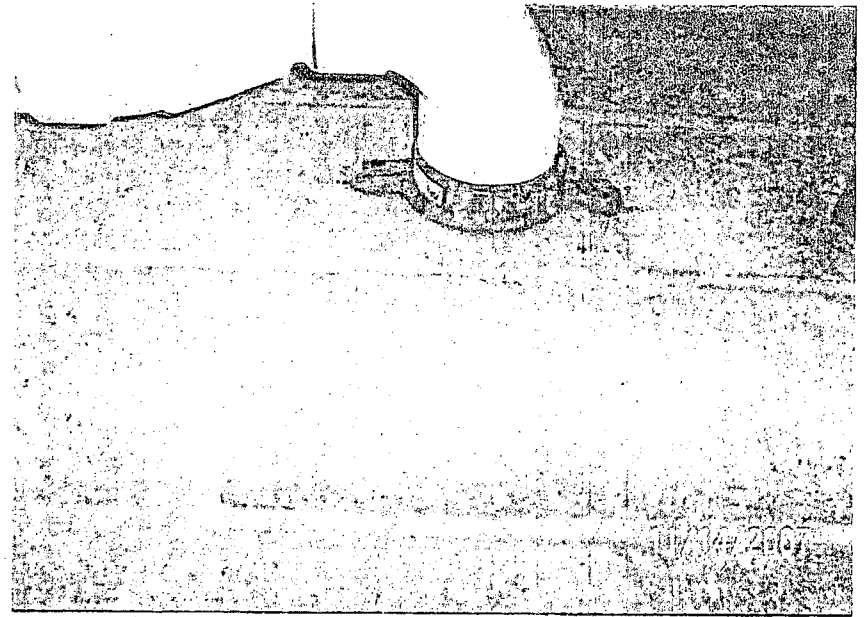
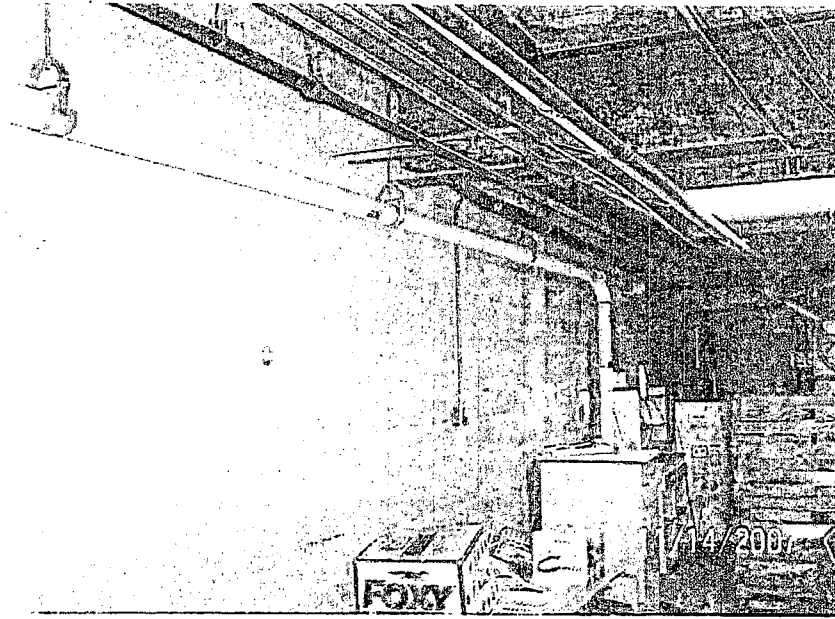
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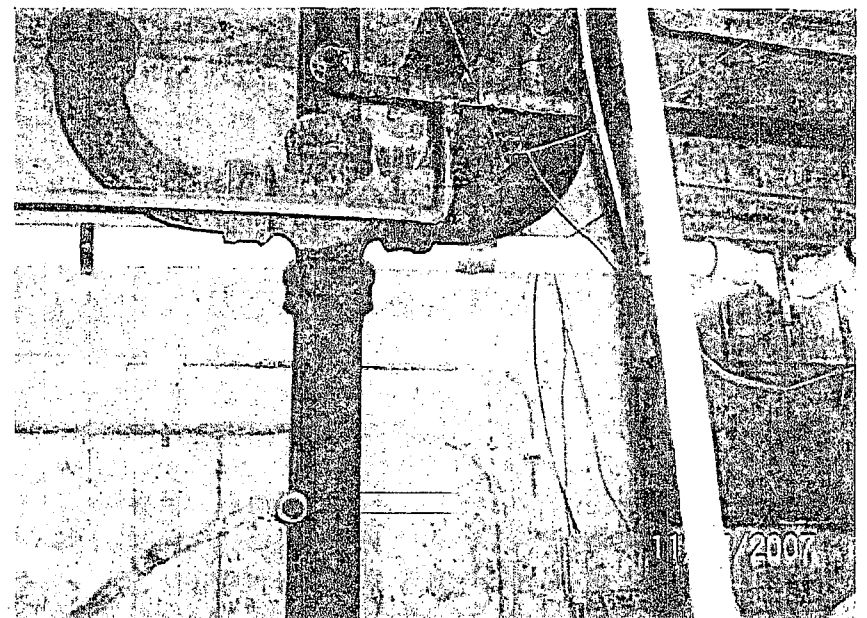
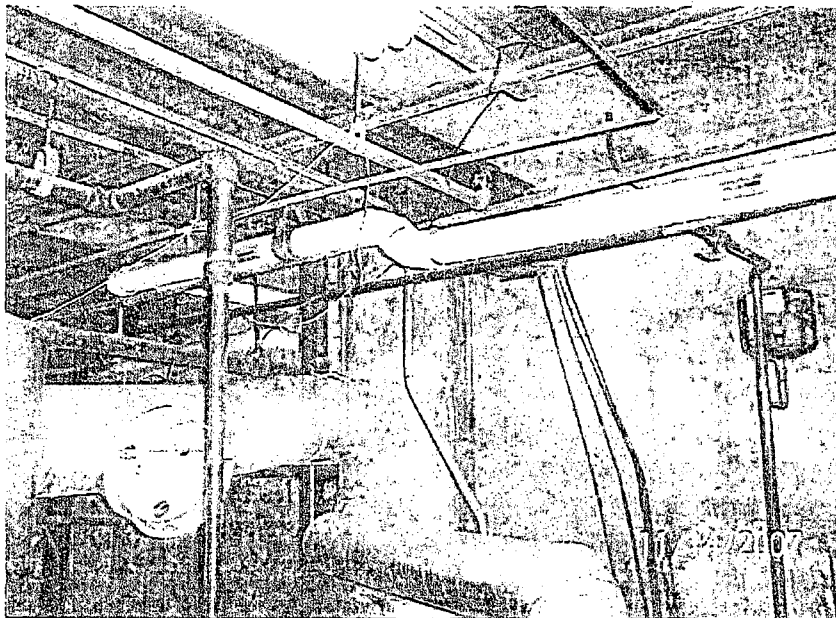
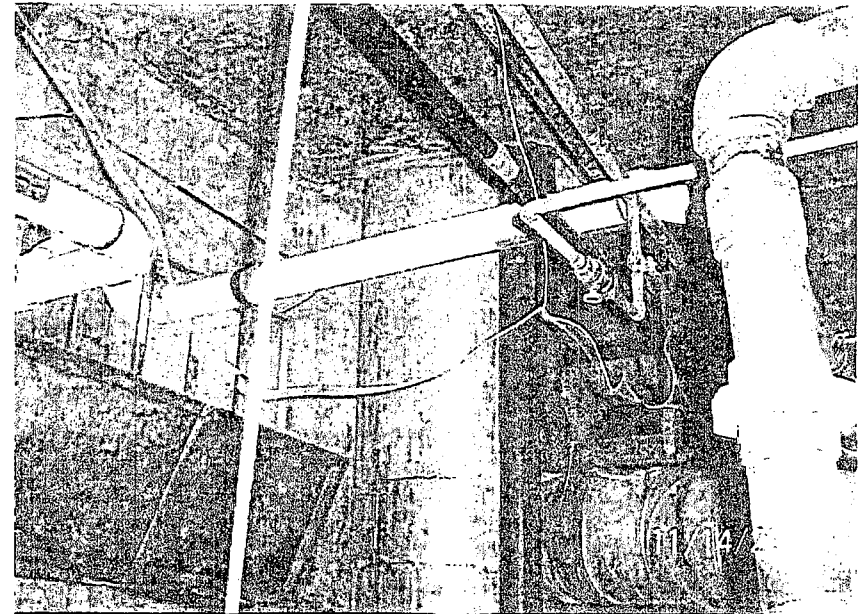
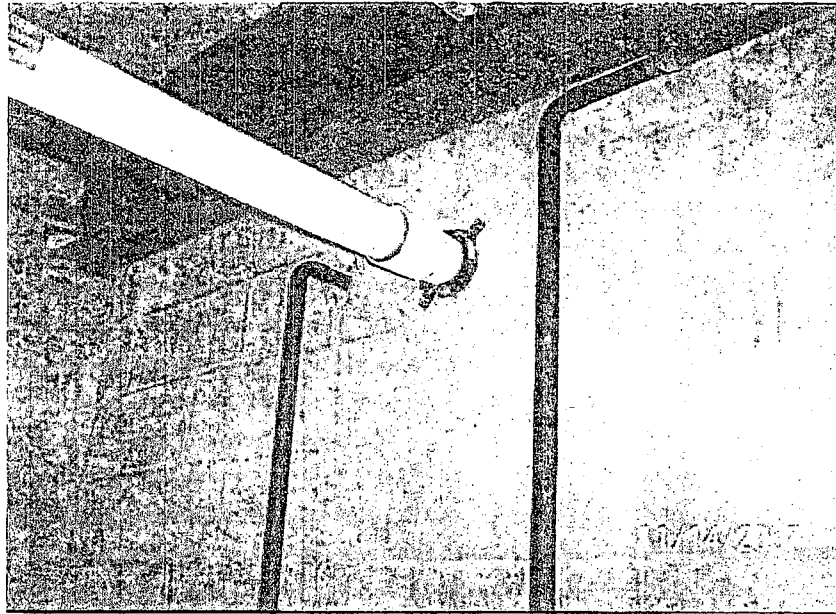
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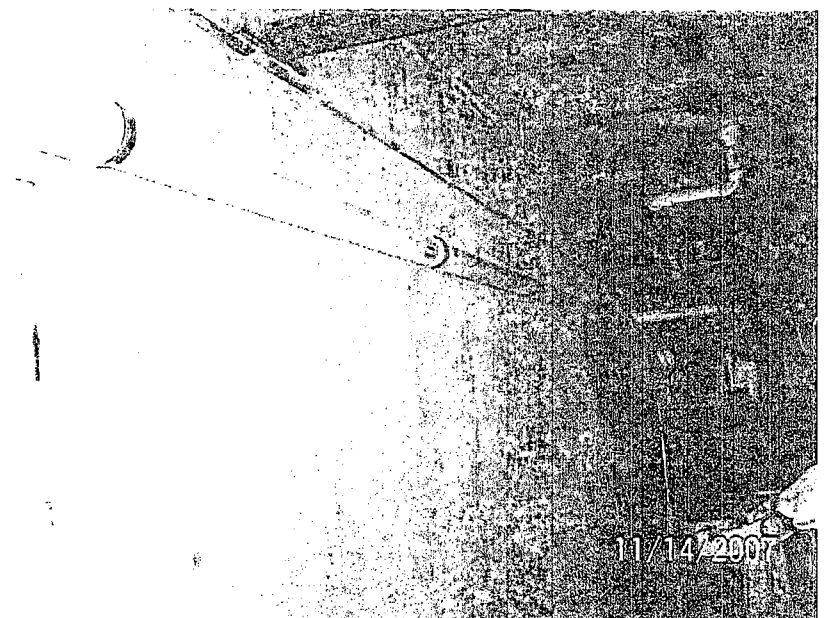
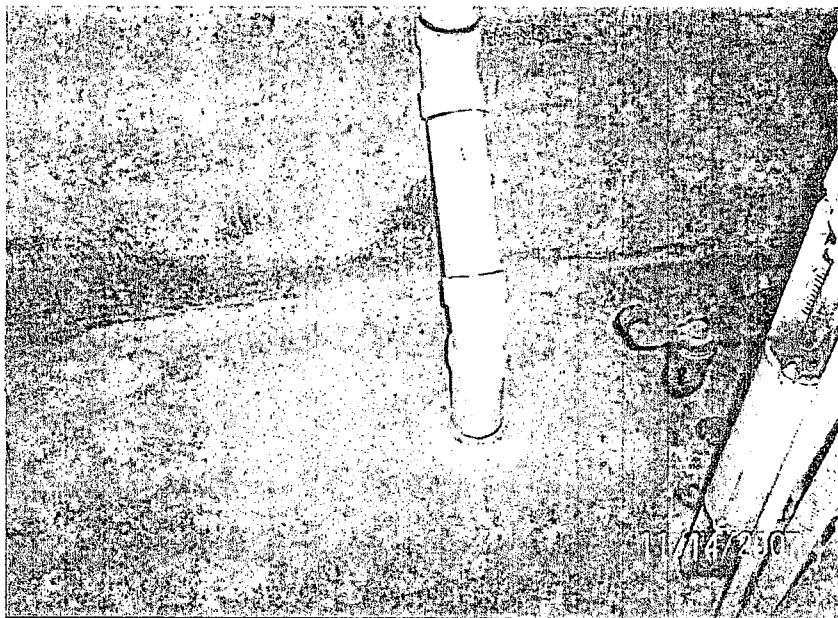
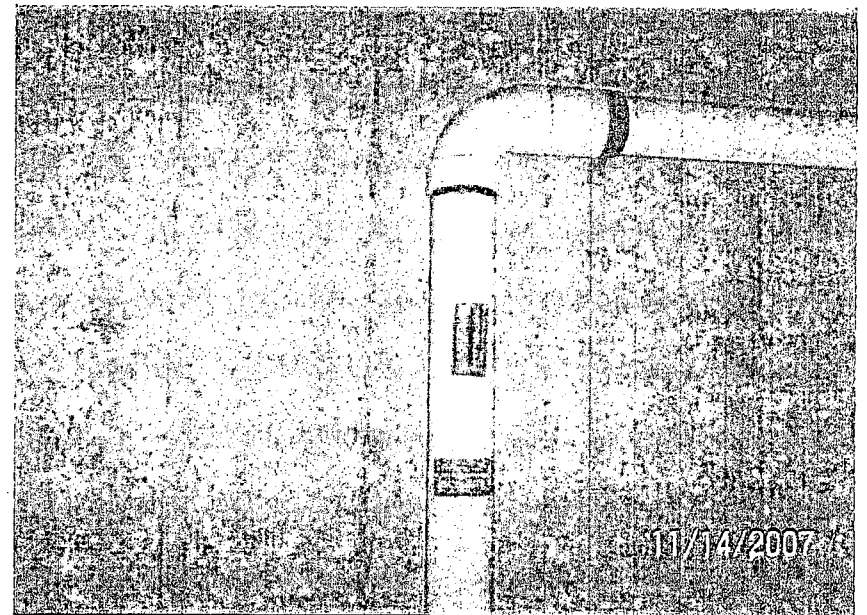
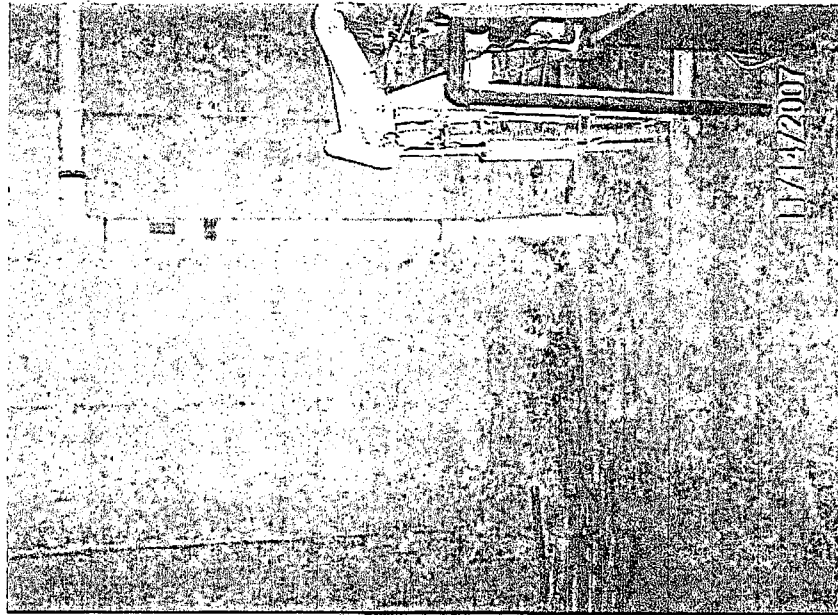
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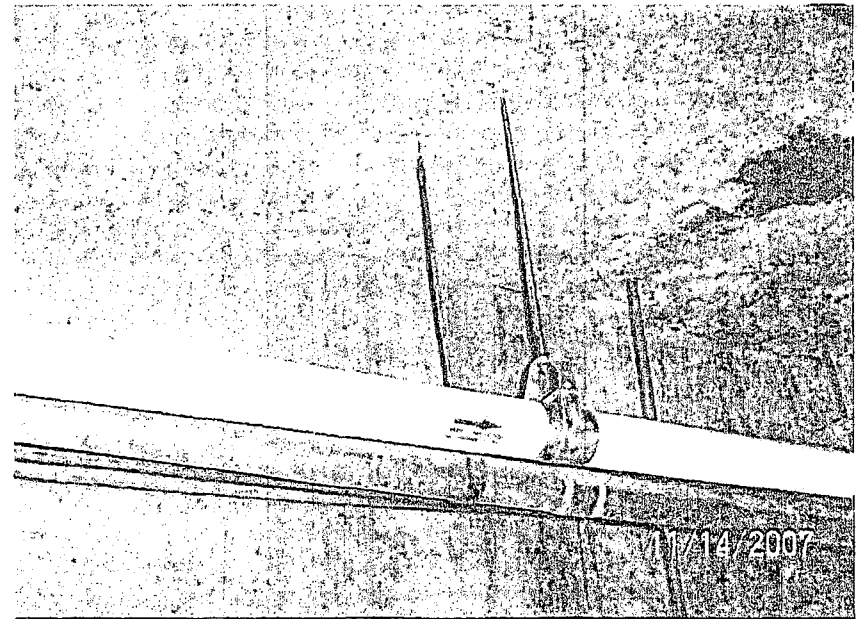
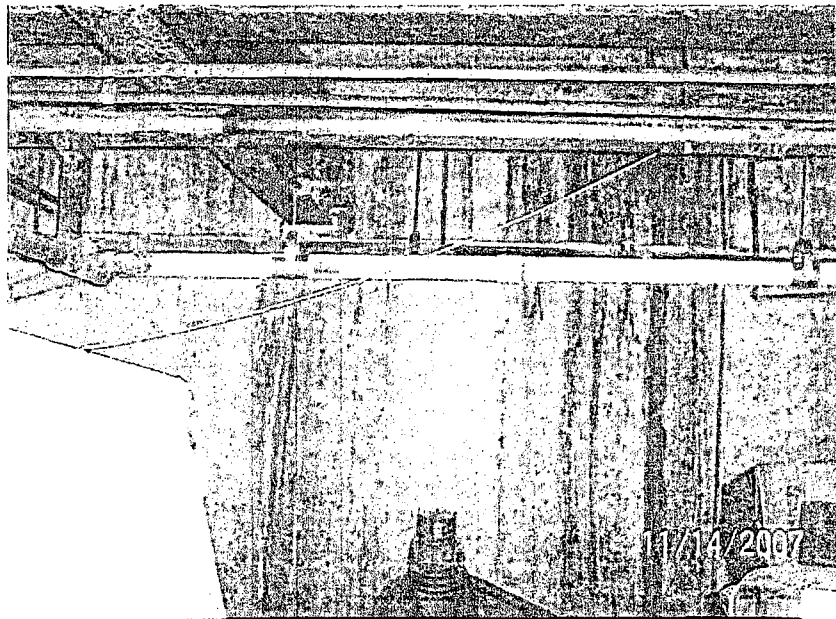
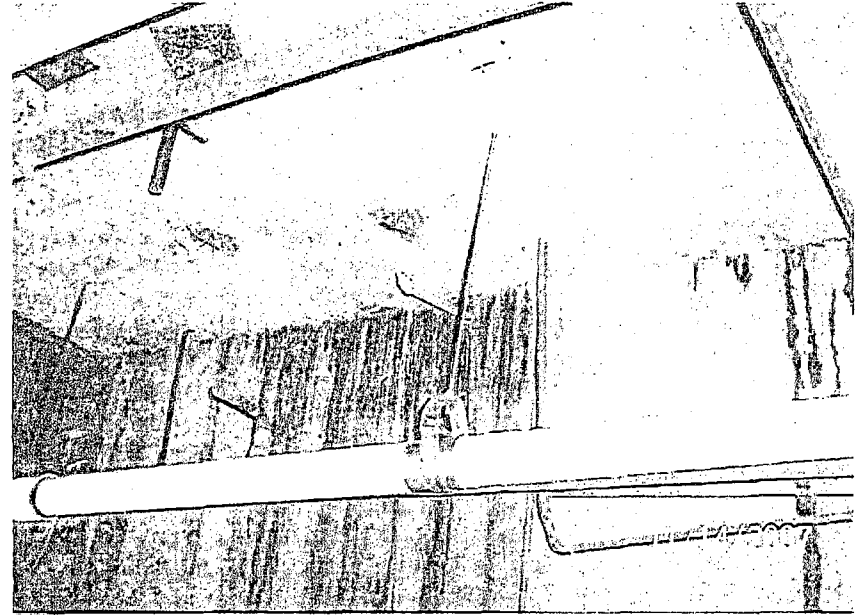
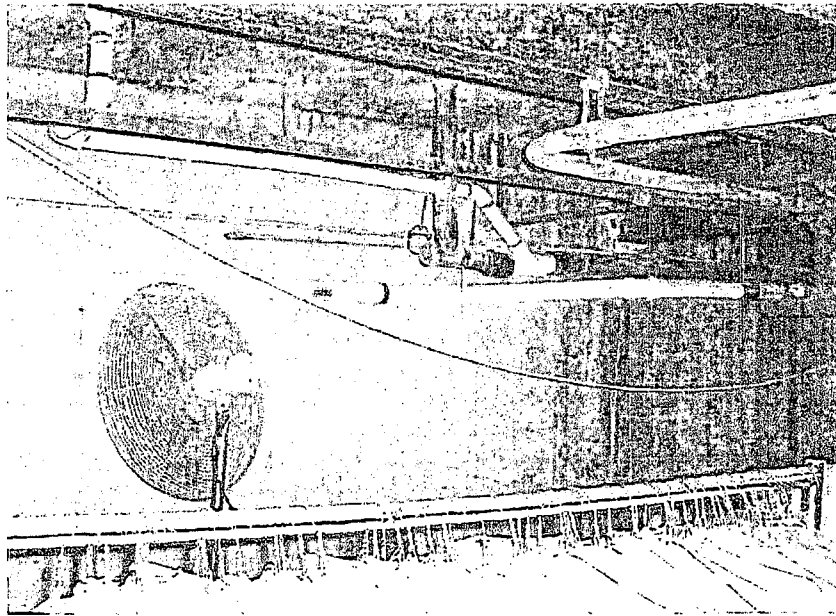
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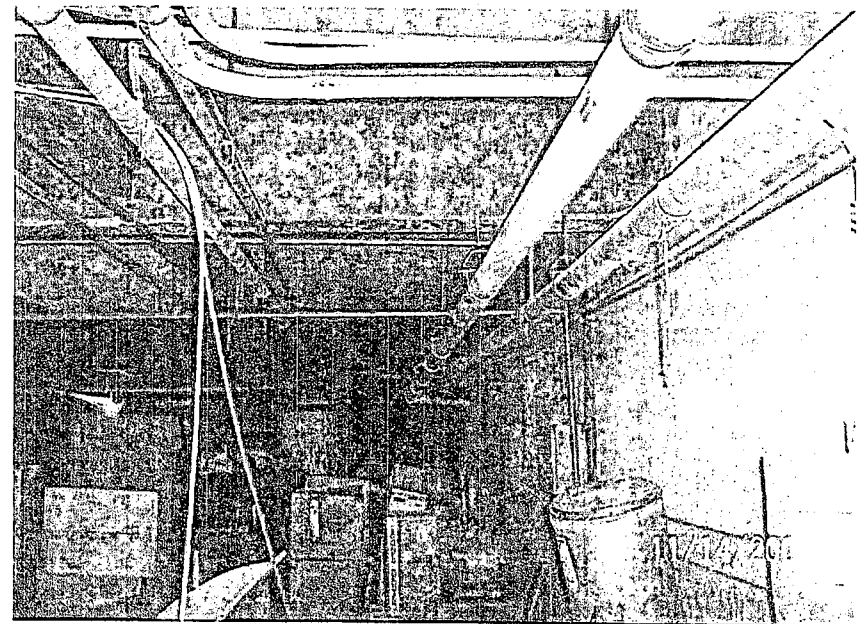
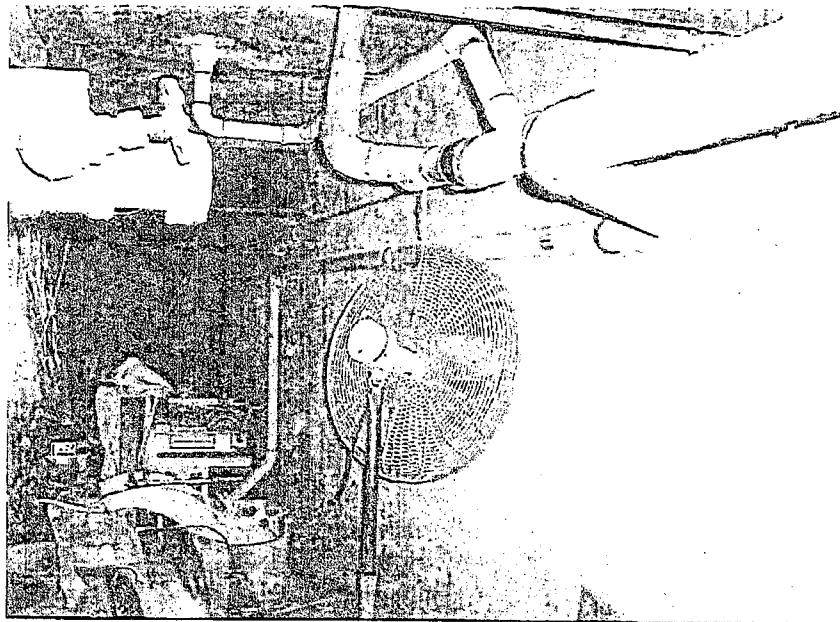
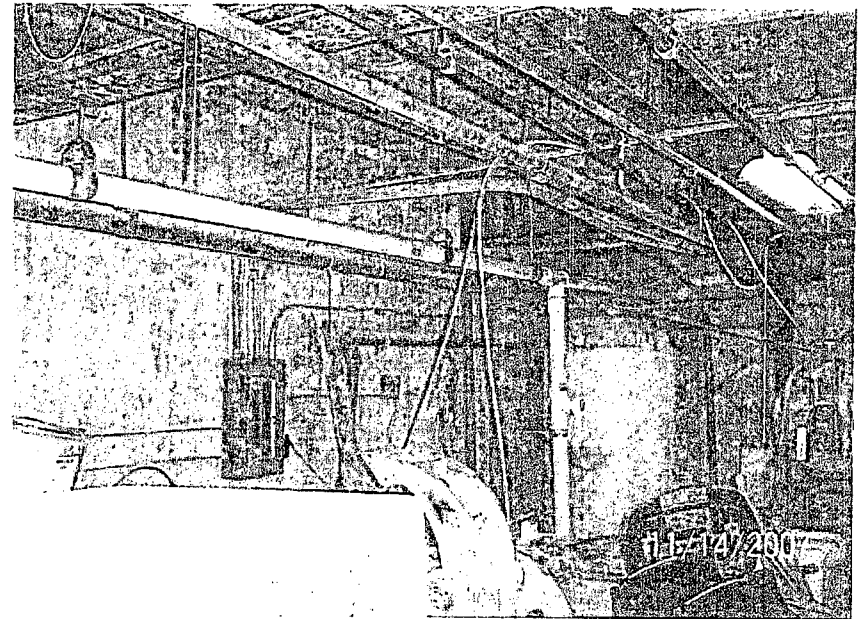
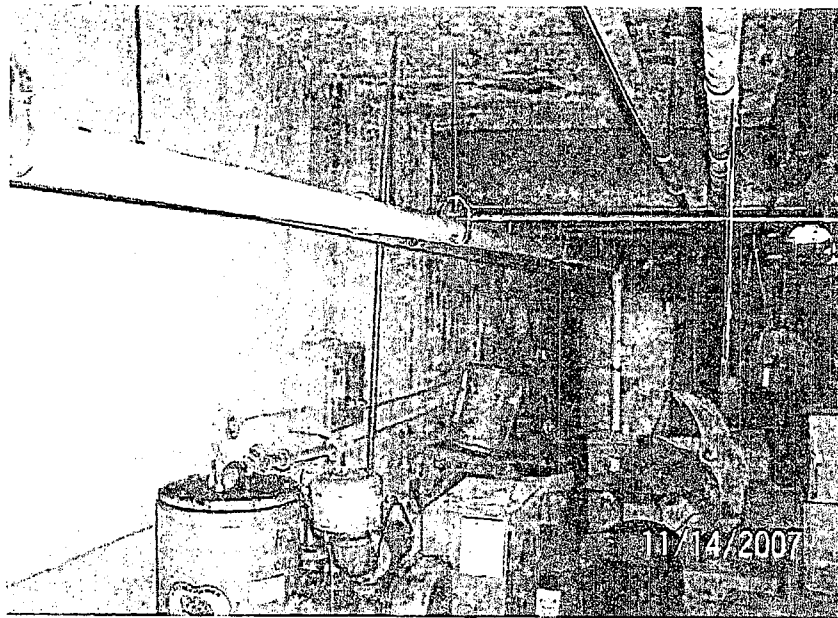
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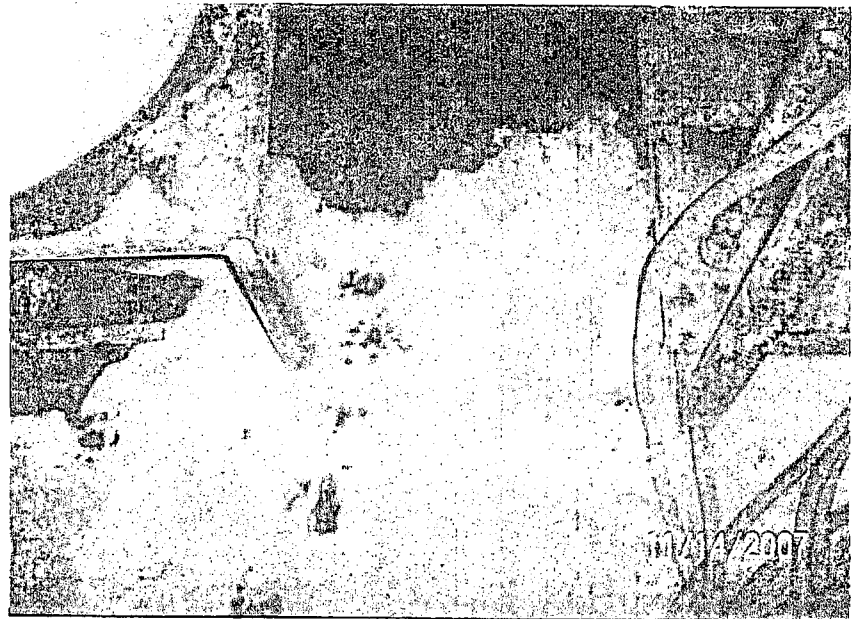
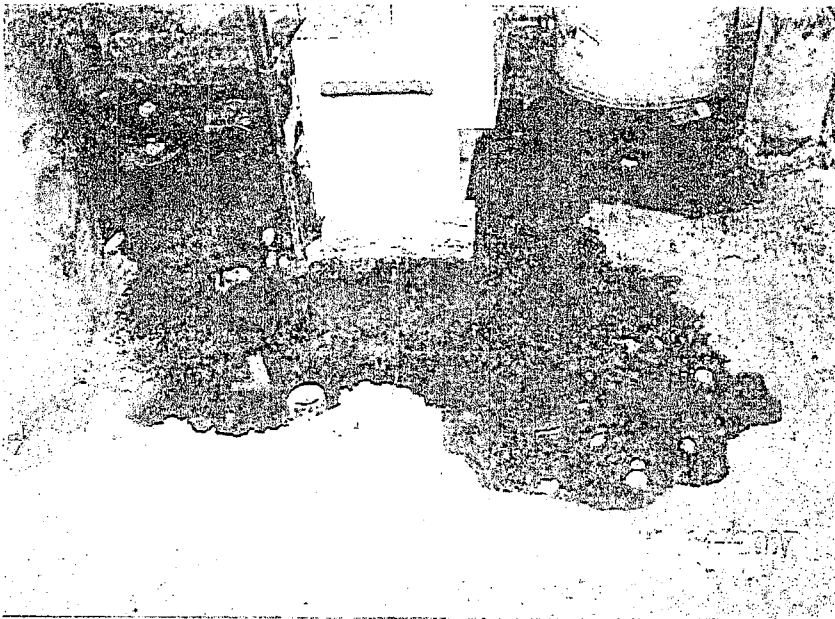
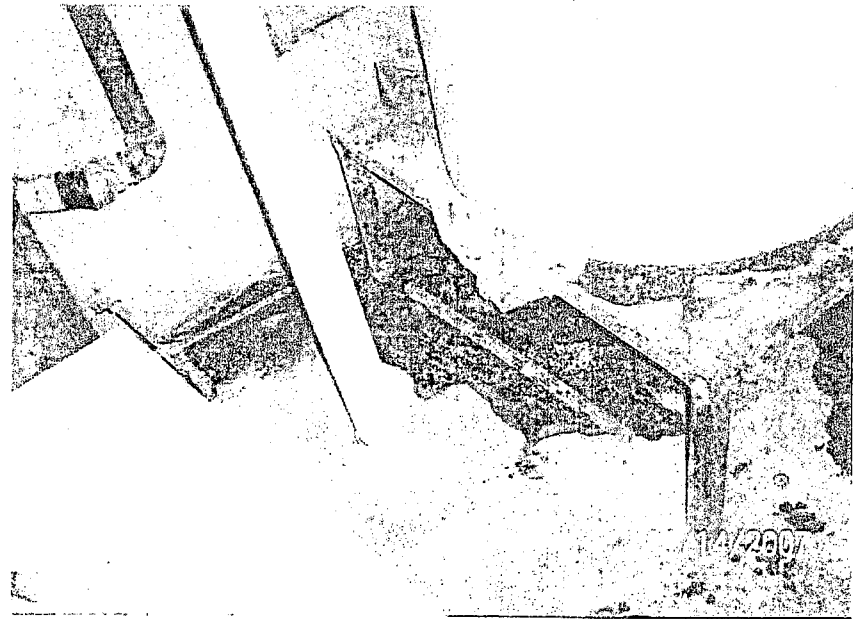
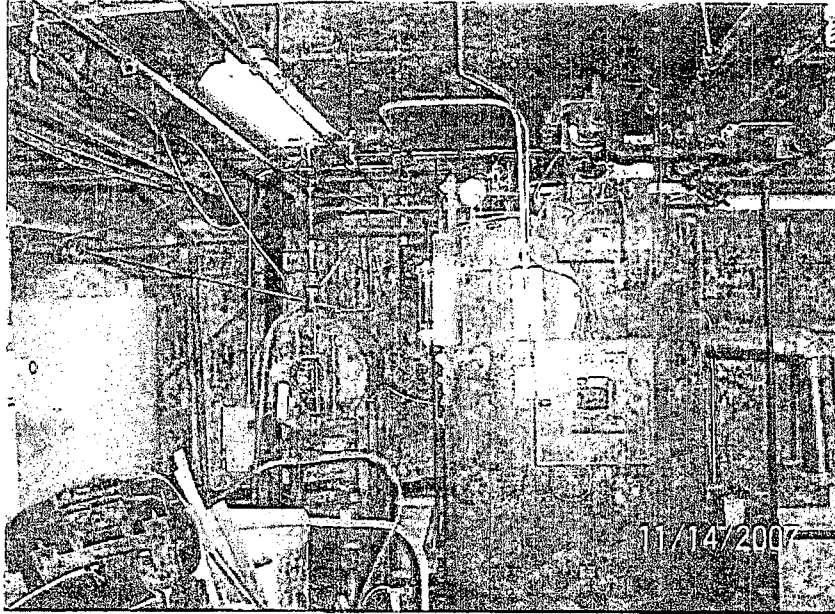
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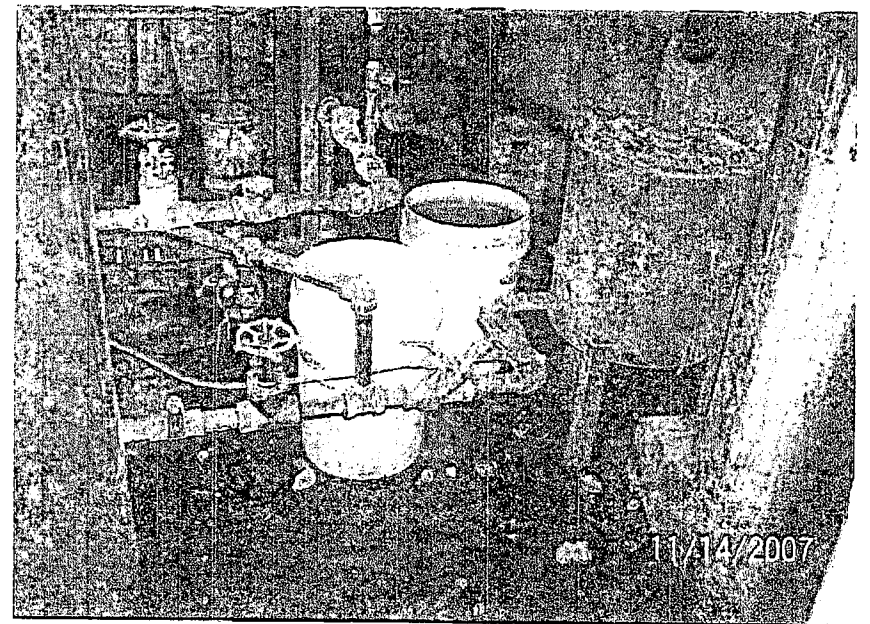
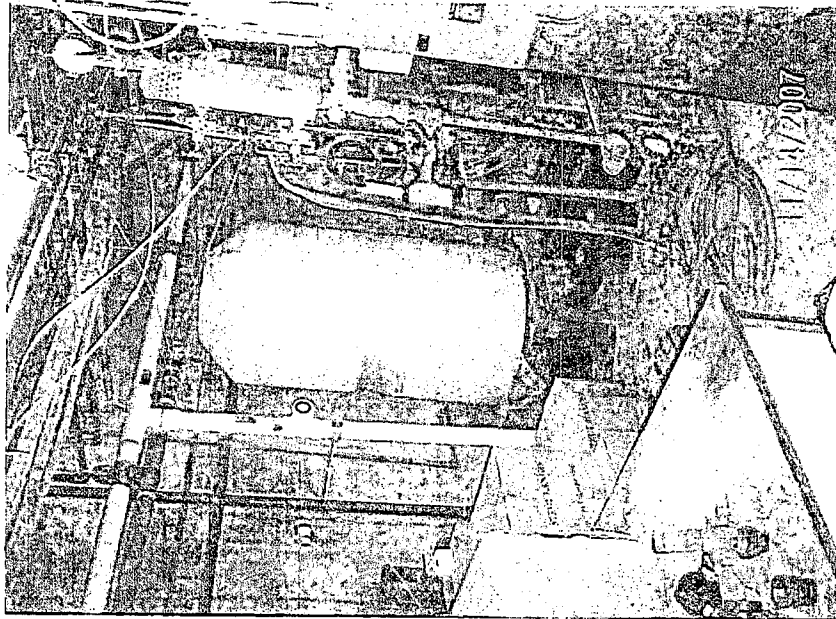
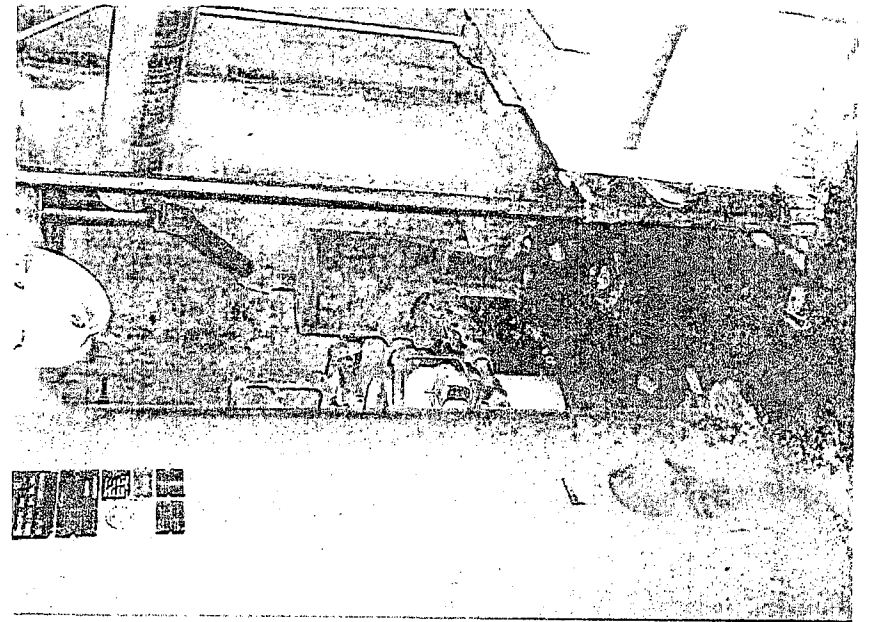
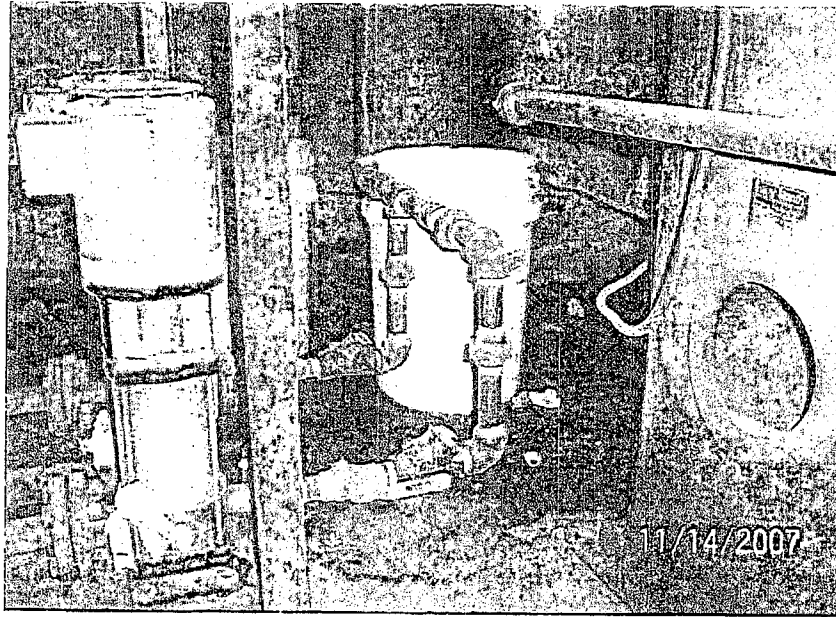
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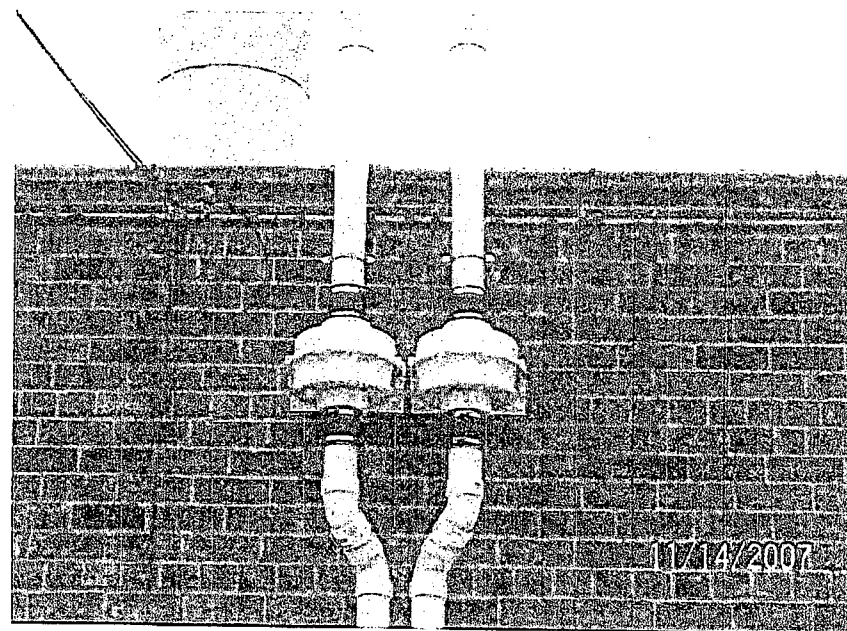
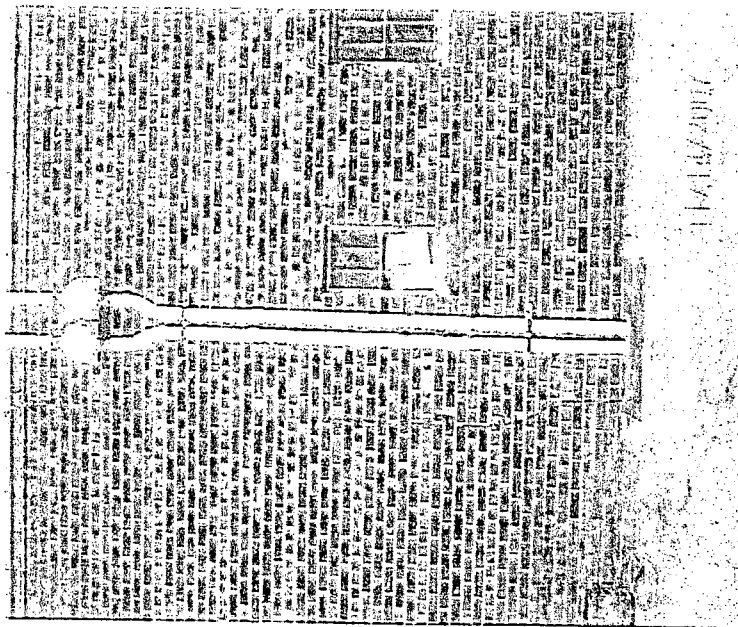
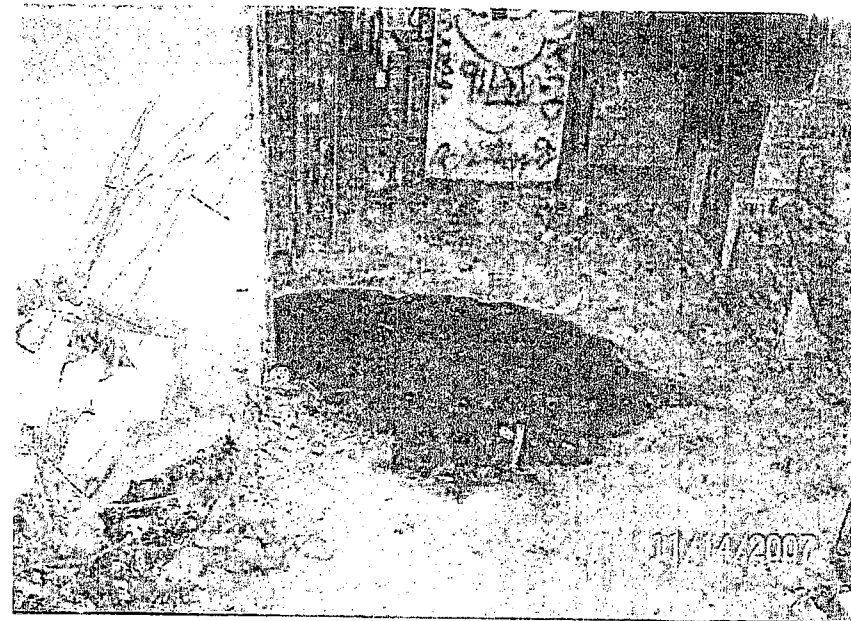
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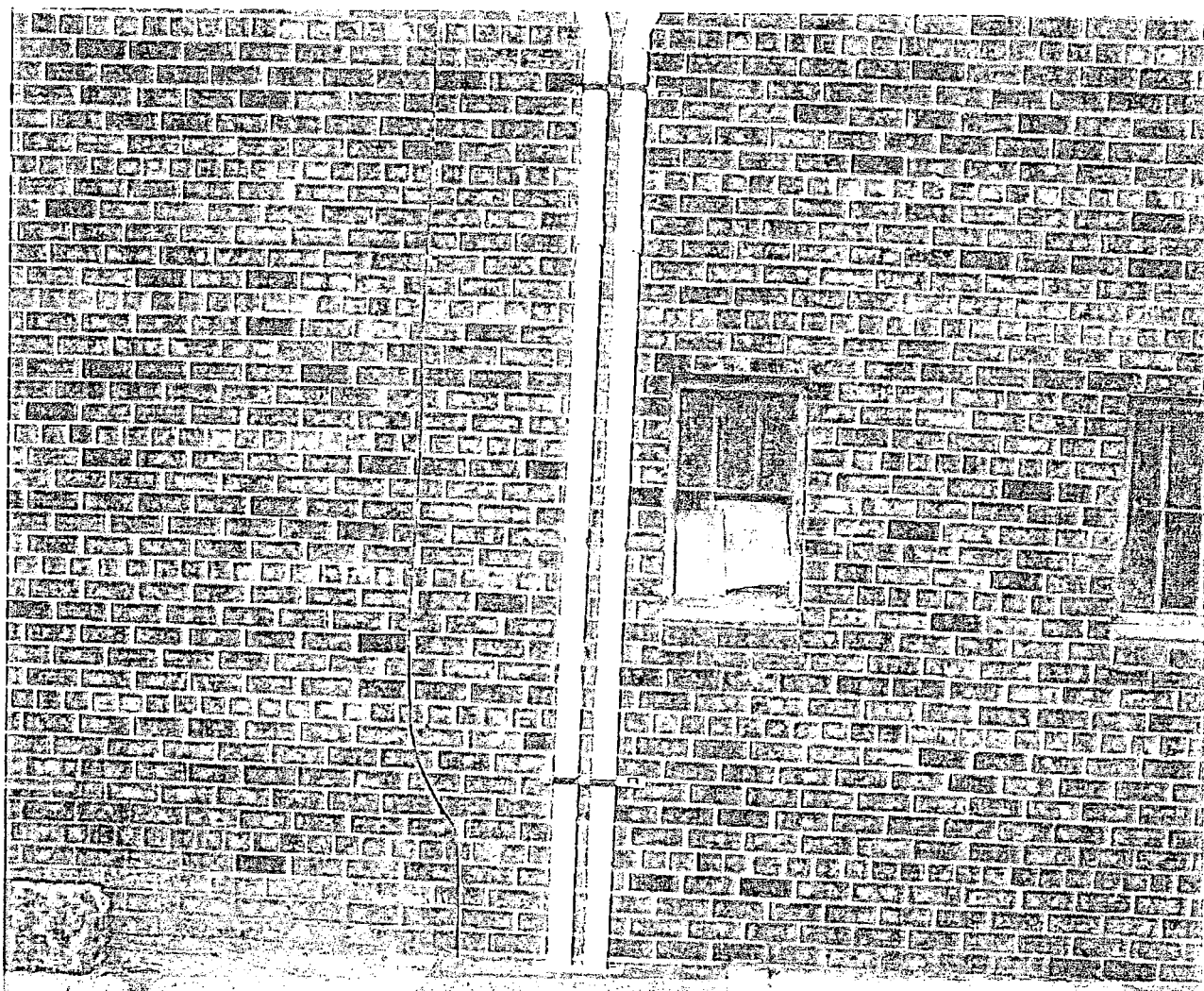


20 Welch AL Lockshell, NY



20 Welcher Ave Peekskill, NY





COPY

**FINAL PROJECT REPORT FOR THE
INSTALLATION OF ACTIVE
SOIL DEPRESSURIZATION SYSTEMS
AT THE BLUE MOUNTAIN PLAZA, 20
WELCHER AVENUE, PEEKSKILL, N.Y**

Prepared for:

Kurtsam Realty
Box 383 Quaker Ridge Road
Croton-On-Hudson, New York 10520

Prepared by:

Mr. David Grammer
RAdata, Inc.
27 Ironia Road
Flanders, New Jersey
Phone: (973) 927-7303 Fax: (973) 927-4980
E-Mail: dg@radata.com

January 14, 2011

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Sub Slab Vacuum Measurements.....	ATTACHMENT 3
Waste Disposal Manifest.....	ATTACHMENT 4
Local Municipality Permits.....	ATTACHMENT 5
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Operations, Maintenance and Monitoring.....	ATTACHMENT 7
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MSDS and Material Information.....	ATTACHMENT 9
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INSTALLATION OF ACTIVE SOIL DEPRESSURIZATION SYSTEMS

THE BLUE MOUNTAIN PLAZA, 20 WELCHER AVENUE, GO NO SEN KARATE DOJO, FITNESS KICKBOXING AND VACANT WASH "N" DRY, PEEKSKILL, N.Y

1.0 INTRODUCTION AND BACKGROUND

RAdata, Inc. has completed the installation of Active Soil Depressurization Systems (ASDS) at the Go No Sen Karate Dojo, Fitness Kickboxing and the vacant Wash "N" Dry located in The Blue Mountain Plaza at 20 Welcher Avenue in Peekskill, New York. This complex is owned by Kurtsam Realty. This work commenced on October 19, 2010 and was completed on October 21, 2010.

Indoor and soil air sampling was previously conducted at the site by Bell Environmental, 230 Route 206, Flanders, New Jersey. The results of these samplings show numerous volatile organic compounds (VOCs) that exceed the New York State Department of Health (NYDOH) background concentrations.

1.1 Site Description

The subject facility is a one-story masonry building with a basement. The basement is partitioned into two sections, one beneath the Go No Sen Karate Dojo and Fitness Kickboxing which is dissected into various use rooms and one beneath the vacant Wash "N" Dry. There is a concrete slab with masonry outer walls. The facility is a one story building approximately 18 feet high with a brick exterior. The age of the foundation is unknown. The building has a flat roof. Total square footage of indoor space is approximately 3,000 square feet +/-.

1.2 Site Contaminants

Air sampling conducted at the Blue Mountain Plaza property prior to the installation of the Active Soil Depressurization Systems detected the following contaminants exceeding the New York State Department of Health (NYDOH) background concentrations.

Acetone	Chloroform
Ethanol	Tetrachloroethene (PCE)
Trichlorofluoromethane	Trichloroethene (TCE)
Tetrahydrofuran	Total Xylenes
Cis-1,2-Dichloroethylene	Chloromethane
N-Hexane	

2.0 MITIGATION APPROACH

The primary method for reducing soil borne pollutants according to the N.Y.D.O.H Guidance for Evaluating Soil Vapor Intrusion in the State of New York (October 2006) is Active Soil Depressurization Systems (ASDS). Active Soil Depressurization Systems prevent soil borne pollutants entry into the building by creating a negative pressure (vacuum) beneath the slab through fan activated PVC pipe routed to the exterior of the building and vented above the roofline. It is at this location where these pollutants are quickly diluted by the ambient air. The Active Soil Depressurization Systems may also remove moisture and other soil pollutants that enter the building, therefore thus improving the overall air quality of the building.

The Active Soil Depressurization Systems are installed so as to coordinate with other building components especially those that require maintenance or clearance of any type. All mitigation components are installed to facilitate servicing, maintenance and repair or replacement of other equipment components both inside and outside of the building. All systems, materials and equipment were installed level, plumb, parallel or perpendicular to other building systems and components unless otherwise specified. All fan components are UL or equivalent rated.

3.0 INSTALATION OF PERMANENT ACTIVE SOIL DEPRESSURIZATION SYSTEMS

Based on data gathered during the sub-slab vacuum testing the decision was made by RAdata, Inc. to install a total of three (3) permanent ASDS. Systems locations can be found on the As Built Drawing as Attachment 1. After four (4) four-inch (4") holes were core drilled through the concrete floor, about one cubic foot of soil was removed from beneath the slab using a shop vac. Soil was placed in a 55-gallon drum for proper disposal. These holes were piped with three-inch (3") Schedule 40 PVC pipe (ASTM D 1785) routed to the exterior of the building. Two (2) of the ASDS were routed to the rear of the building and one (1) to the right side of the building. Split-ring hangers, clevis hangers and two-hole straps were used to attach the pipe securely to the building. The

exhaust of three-inch (3") Schedule 40 PVC pipe was routed above the roofline at that location. The vent fans are mounted directly to the PVC pipe slightly below the roofline using rubber couplers.

There was also an existing sump pit and submersible sump pump in the basement that was covered using a removable Plexiglas cover.

The three (3) fan units are Dynavac GP 501 fans (70-140 Watts) with a maximum pressure of 4.00 Inches of Water capable of evacuating 95 Cubic Feet Per Minute at 1" static pressure. Fan specifications can be found as Attachment 2. Conte Electric, 34 Brook Street, Croton-On-Hudson, New York 10520 (914-271-6636) provided electrical service to the fan units. Electrical service disconnects are located on the exterior of the building directly next to the fan units. To provide constant evaluation of system performance, Mini-magnehelic pressure gauges were installed in a conspicuous location on the PVC pipe in the basement area along with audio alarms which sound when fan failure has occurred. All components of the ASDS systems are clearly labeled as to their function. RAdata, Inc. contact information labels are attached to each system and are clearly visible.

The ASDS should not be turned off until the N.Y.D.O.H receives, and has had the opportunity to comment on, a proposal to turn off the mitigation systems. Systems should remain in place and operational until they are no longer needed to address current or potential exposures related to soil vapor intrusion.

3.1 Vacuum and Air Stream Measurements of Permanent Active Soil Depressurization Systems

After the installation of the ASDS, RAdata, Inc. conducted sub-slab vacuum measurements using a Dwyer digital Micro manometer to determine their sphere of influence. Four (4) test point locations were used to determine the sphere of influence within this particular portion of the building. The sub-slab vacuum test point locations and test results can be found as Attachment 3. The goal of a successful ASDS system is to create a negative pressure of -.004 Inches of Water Column or 1 Pascal. The outbound effluent air-stream should also be tested, the purpose of which is to determine whether operation of the ASDS requires a New York State Department of Health (N.Y.D.O.H) air permit for discharge of volatile organic compounds (VOCs).

3.2 Conclusions of Vacuum Measurements For The Active Soil Depressurization Systems

All four (4) test point locations indicate that the sub-floor vacuum created by the three (3) ASDS meets or exceed the goal of a successful ASDS system which is to create a negative pressure of -.004 Inches of Water Column or 1 Pascal.

4.0 DISPOSAL OF SOIL AND CONSTRUCTION DEBRIS

The one 55-gallon container of soil removed from beneath the floor, as well as construction debris, was disposed of by Clean Ventures, 2001 South First Street, Elizabeth, New Jersey, (908-355-5800). The drums were removed from the site on December 19, 2007. A copy of the disposal manifest can be found as Attachment 4.

5.0 PERMITS

RAdata, Inc. and its sub-contractors have procured the necessary permits for the installation of the ASDS. A copy of the City of Peekskill Building and Electrical permits for the installation of the ASDS can be found as Attachment 5.

6.0 WORKER HEALTH AND SAFETY

A copy of our Worker Health and Safety Plan For Installing the Active Soil Depressurization Systems can be found as Attachment 6. Phase Associates, LLC, 316 Eisenhower Parkway, Livingston, New Jersey, 973-597-0750, prepared this document for RAdata, Inc.

7.0 OPERATIONS, MAINTENANCE AND MONITORING

The building Owner is responsible for ongoing system Operations, Maintenance and Monitoring as well as verification sampling of indoor air quality. RAdata, Inc. should conduct an inspection at a six-month interval after the installation has been completed. After the first year, a reduced inspection frequency may be appropriate and changed to once every 12 to 18 months. Based upon a demonstration of the system's reliability, the N.Y.D.O.H recommends that, if a different frequency is desired, a petition describing the alternative frequency and the reasons that frequency is preferred may be submitted to the State. Submission of an annual certification to the N.Y.D.O.H may be required. Comprehensive maintenance procedures can be found as Attachment 7.

8.0 WARRANTIES

All work was completed in a professional, workmanlike manner. RAdata, Inc. warrants all system components and workmanship for a period of three (3) years from the date of installation.

9.0 CONCLUSION

The goal of a successful ASDS system is to create a negative pressure of between -.004 Inches of Water Column. Sub floor vacuum measurements reflect an acceptable vacuum in all four (4) interior test point locations. Test point locations and results can be found as Attachment 3. Post treatment indoor air sampling test results will be the defining factor as to the success of the ASDS systems.

10.0 CONTACT INFORMATION

GENERAL CONTRACTOR

Radata, Inc.
27 Ironia Road
Flanders, New Jersey 07836
973-927-7303 Telephone
973-917-4980 Fax
dg@radata.com

SUB CONTRACTORS

Electrical Service
Conti Electric, Inc.
34 Brook Street
Croton-on-Hudson 10520
914-271-6636

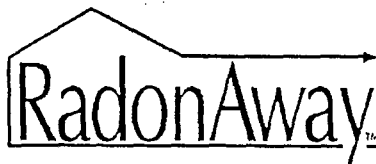
Soil Waste Disposal
Clean Ventures, Inc.
201 South 1st Street
Elizabeth, NJ 07206
908-355-5800

ATTACHMENT

1

ATTACHMENT

2



RadonAway Ward Hill, MA IN014 Rev F

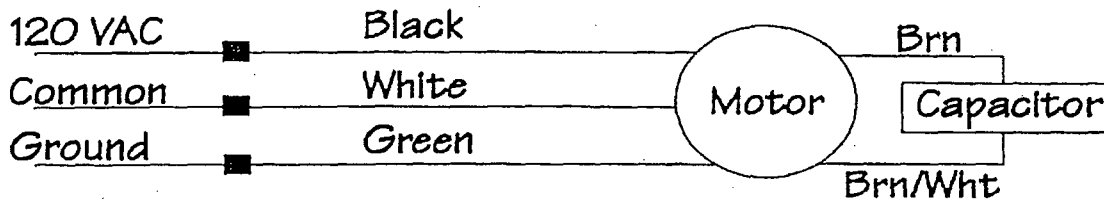
XP/GP/XR Series Fan Installation Instructions

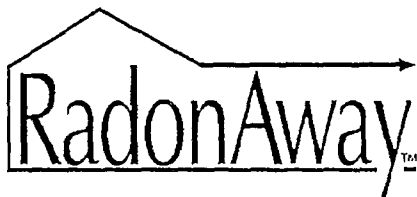
Please Read And Save These Instructions.

DO NOT CONNECT POWER SUPPLY UNTIL FAN IS COMPLETELY INSTALLED. MAKE SURE ELECTRICAL SERVICE TO FAN IS LOCKED IN "OFF" POSITION. DISCONNECT POWER BEFORE SERVICING FAN.

1. **WARNING!** Do not use fan in hazardous environments where fan electrical system could provide ignition to combustible or flammable materials.
2. **WARNING!** Do not use fan to pump explosive or corrosive gases.
3. **WARNING!** Check voltage at the fan to insure it corresponds with nameplate.
4. **WARNING!** Normal operation of this device may affect the combustion airflow needed for safe operation of fuel burning equipment. Check for possible backdraft conditions on all combustion devices after installation.
5. **NOTICE!** There are no user serviceable parts located inside the fan unit. Do NOT attempt to open. Return unit to the factory for service.
6. All wiring must be performed in accordance with the National Fire Protection Association's (NFPA) "National Electrical Code, Standard #70"-current edition for all commercial and industrial work, and state and local building codes. All wiring must be performed by a qualified and licensed electrician.
7. **WARNING!** Do not leave fan unit installed on system piping without electrical power for more than 48 hours. Fan failure could result from this non-operational storage.

DynaVac GP/XP/XR/RP Series Fan Wiring Diagram





INSTALLATION INSTRUCTION IN014 Rev F

DynaVac - XP/XR Series		DynaVac - GP Series	
XP101	p/n 23008-1,-2	GP201	p/n 23007-1
XP151	p/n 23010-1,-2	GP301	p/n 23006-1,-2
XP201	p/n 23011-1,-2	GP401	p/n 23009-1
XR161	p/n 23018-1,-2	* GP501	p/n 23005-1,-2
XR261	p/n 23019-1,-2		

1.0 SYSTEM DESIGN CONSIDERATIONS

1.1 INTRODUCTION

The DynaVac GP/XP/XR Series Radon Fans are intended for use by trained, professional Radon mitigators. The purpose of this instruction is to provide additional guidance for the most effective use of a DynaVac Fan. This instruction should be considered as a supplement to EPA standard practices, state and local building codes and state regulations. In the event of a conflict, those codes, practices and regulations take precedence over this instruction.

1.2 ENVIRONMENTALS

The GP/XP/XR Series Fans are designed to perform year-round in all but the harshest climates without additional concern for temperature or weather. For installations in an area of severe cold weather, please contact RadonAway for assistance. When not in operation, the fan should be stored in an area where the temperature is never less than 32 degrees F. or more than 100 degrees F.

1.3 ACOUSTICS

The GP/XP/XR Series Fan, when installed properly, operates with little or no noticeable noise to the building occupants. The velocity of the outgoing air should be considered in the overall system design. In some cases the "rushing" sound of the outlet air may be disturbing. In these instances, the use of a RadonAway Exhaust Muffler is recommended.

1.4 GROUND WATER

In the event that a temporary high water table results in water at or above slab level, water may be drawn into the riser pipes thus blocking air flow to the GP/XP/XR Series Fan. The lack of cooling air may result in the fan cycling on and off as the internal temperature rises above the thermal cutoff and falls upon shutoff. Should this condition arise, it is recommended that the fan be turned off until the water recedes allowing for return to normal operation.

1.5 SLAB COVERAGE

The GP/XP/XR Series Fan can provide coverage up to 2000+ sq. ft. per slab penetration. This will primarily depend on the sub-slab material in any particular installation. In general, the tighter the material, the smaller the area covered per penetration. Appropriate selection of the GP/XP/XR Series Fan best suited for the sub-slab material can improve the slab coverage. The GP & XP series have a wide range of models to choose from to cover a wide range of subslab material. The higher static suction fans are generally used for tighter subslab materials. The XR Series is specifically designed for high flow applications such as stone/gravel and drain tile. Additional suction points can be added as required. It is recommended that a small pit (5 to 10 gallons in size) be created below the slab at each suction hole.

1.6 CONDENSATION & DRAINAGE

Condensation is formed in the piping of a mitigation system when the air in the piping is chilled below its dew point. This can occur at points where the system piping goes through unheated space such as an attic, garage or outside. The system design must provide a means for water to drain back to a slab hole to remove the condensation. The GP/XP/XR Series Fan **MUST** be mounted vertically plumb and level, with the outlet pointing up for proper drainage through the fan. Avoid mounting the fan in any orientation that will allow water to accumulate inside the fan housing. The GP/XP/XR Series Fans are **NOT** suitable for underground burial.

For GP/XP/XR Series Fan piping, the following table provides the minimum recommended pipe diameter and pitch under several system conditions.

Pipe Dia.	Minimum Rise per Foot of Run*		
	@25 CFM	@50 CFM	@100 CFM
4"	1/8"	1/4"	3/8"
3"	1/4"	3/8"	1 1/2"

RISE

RUN

*Typical GP/XP/XR Series Fan operational flow rate is 25 - 90 CFM.
(For more precision, determine flow rate by using the chart in the addendum.)

Under some circumstances in an outdoor installation a condensate bypass should be installed in the outlet ducting as shown. This may be particularly true in cold climate installations which require long lengths of outlet ducting or where the outlet ducting is likely to produce large amounts of condensation because of high soil moisture or outlet duct material. Schedule 20 piping and other thin-walled plastic ducting and Aluminum downspout will normally produce much more condensation than Schedule 40 piping.

The bypass is constructed with a 45 degree Wye fitting at the bottom of the outlet stack. The bottom of the Wye is capped and fitted with a tube that connects to the inlet piping or other drain. The condensation produced in the outlet stack is collected in the Wye fitting and drained through the bypass tube. The bypass tubing may be insulated to prevent freezing.

1.7 "SYSTEM ON" INDICATOR

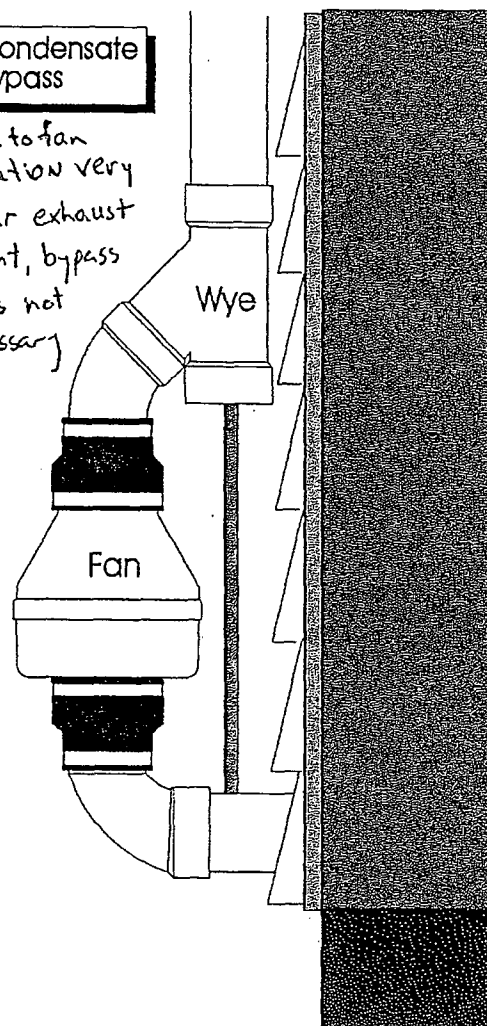
A properly designed system should incorporate a "System On" Indicator for affirmation of system operation. A manometer, such as a U-Tube, or a vacuum alarm is recommended for this purpose.

1.8 ELECTRICAL WIRING

The GP/XP/XR Series Fans operate on standard 120V 60 Hz. AC. All wiring must be performed in accordance with the National Fire Protection

* Condensate Bypass

Due to fan location very near exhaust point, bypass was not necessary



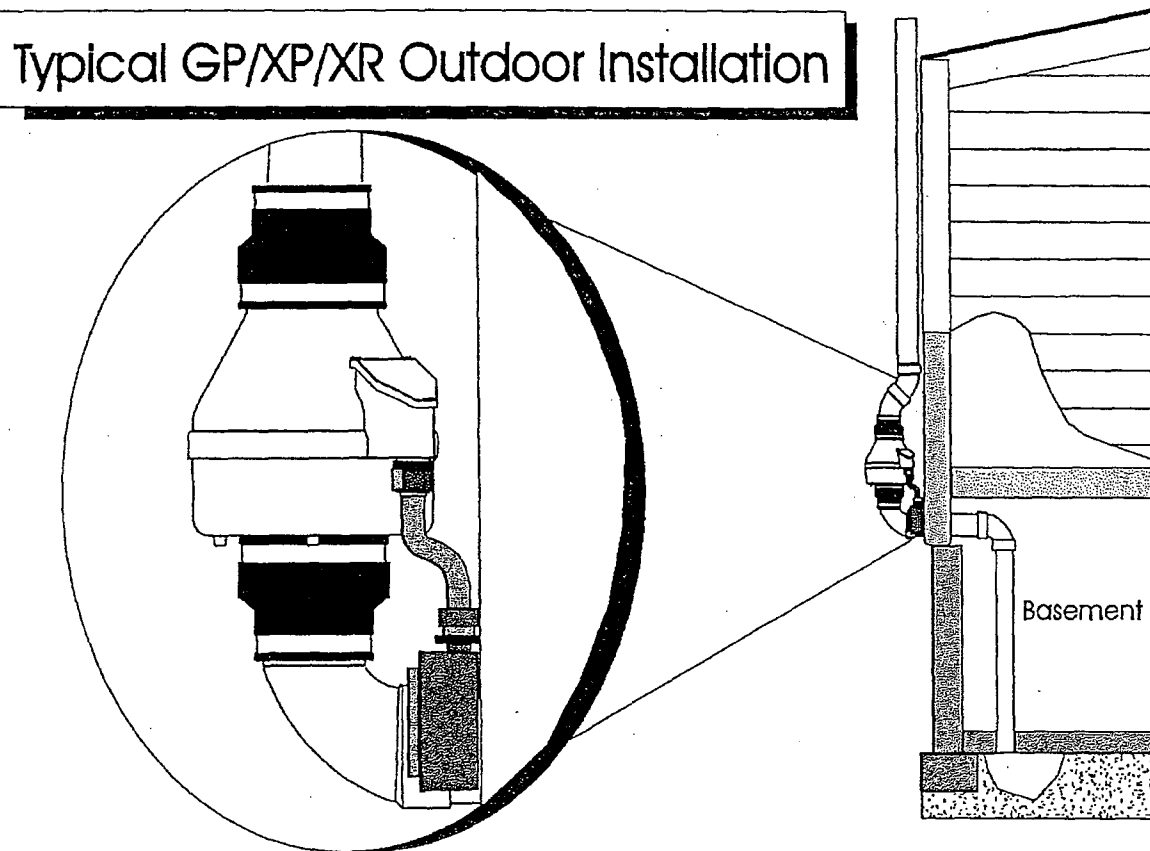
Association's (NFPA) "National Electrical Code, Standard #70" -current edition for all commercial and industrial work, and state and local building codes. All wiring must be performed by a qualified and licensed electrician. Outdoor installations require the use of a U.L. listed watertight conduit.

1.9 SPEED CONTROLS

The GP/XP/XR Series Fans are rated for use with electronic speed controls ,however, they are generally not recommended.

2.0 INSTALLATION

The GP/XP/XR Series Fan can be mounted indoors or outdoors. (It is suggested that EPA recommendations be followed in choosing the fan location.) The GP/XP/XR Series Fan may be mounted directly on the system piping or fastened to a supporting structure by means of optional mounting bracket.



2.1 MOUNTING

Mount the GP/XP/XR Series Fan vertically with outlet up. Insure the unit is plumb and level. When mounting directly on the system piping assure that the fan does not contact any building surface to avoid vibration noise.

2.2 MOUNTING BRACKET (optional)

The GP/XP/XR Series fan may be optionally secured with the integral mounting bracket on the GP Series fan or with RadonAway P/N 25007-2 mounting bracket for an XP/XR Series fan. Foam or rubber grommets may also be used between the bracket and mounting surface for vibration isolation.

2.3 SYSTEM PIPING

Complete piping run, using flexible couplings as means of disconnect for servicing the unit and vibration isolation.

2.4 ELECTRICAL CONNECTION

Connect wiring with wire nuts provided, observing proper connections:

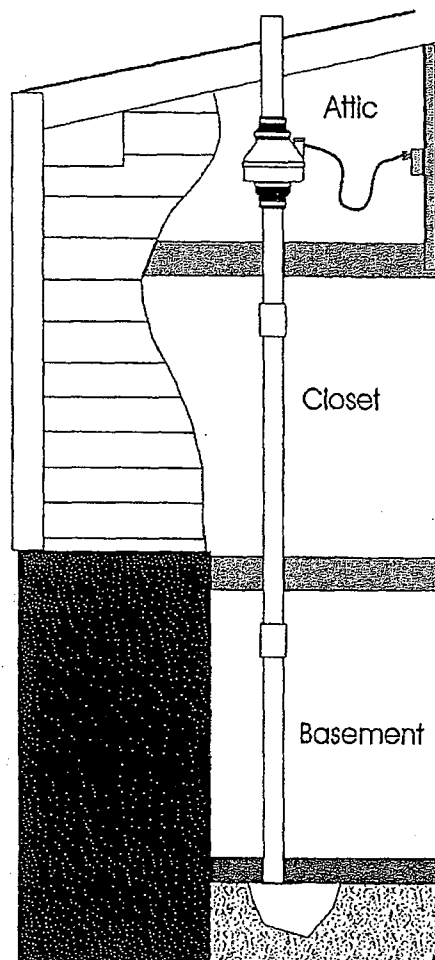
Fan Wire	Connection
Green	Ground
Black	AC Hot
White	AC Common

2.5 VENT MUFLER (optional)

Install the muffler assembly in the selected location in the outlet ducting. Solvent weld all connections. The muffler is normally installed at the end of the vent pipe.

2.6 OPERATION CHECKS

- ____ Verify all connections are tight and leak-free.
- ____ Insure the GP/XP/XR Series Fan and all ducting is secure and vibration-free.
- ____ Verify system vacuum pressure with manometer. Insure vacuum pressure is less than maximum recommended operating pressure
(Based on sea-level operation, at higher altitudes reduce by about 4% per 1000 Feet.)
(Further reduce Maximum Operating Pressure by 10% for High Temperature environments)
See Product Specifications. If this is exceeded, increase the number of suction points.
- ____ Verify Radon levels by testing to EPA protocol.



GP SERIES PRODUCT SPECIFICATIONS

The following chart shows fan performance for the GPx01 Series Fan:

	Typical CFM Vs Static Suction "WC						
	1.0"	1.5"	2.0"	2.5"	3.0"	3.5"	4.0"
* GP501	95	87	80	70	57	30	5
GP401	93	82	60	38	12	-	-
GP301	92	77	45	10	-	-	-
GP201	82	58	5	-	-	-	-

Maximum Recommended Operating Pressure*		
* GP501	3.8" W.C.	(Sea Level Operation)**
GP401	3.0" W.C.	(Sea Level Operation)**
GP301	2.4" W.C.	(Sea Level Operation)**
GP201	1.8" W.C.	(Sea Level Operation)**

*Reduce by 10% for High Temperature Operation

**Reduce by 4% per 1000 feet of altitude

Power Consumption @ 120 VAC	
* GP501	70 - 140 watts
GP401	60 - 110 watts
GP301	55 - 90 watts
GP201	40 - 60 watts

Inlet/Outlet: 3.5" OD (3.0" PVC Sched 40 size compatible)

Mounting: Fan may be mounted on the duct pipe or with integral flanges.

Weight: 12 lbs.

Size: 13H" x 12.5" x 12.5"

Recommended ducting: 3" or 4" Schedule 20/40 PVC Pipe

Storage temperature range: 32 - 100 degrees F.

Normal operating temperature range: -20 - 120 degrees F.

Maximum inlet air temperature: 80 degrees F.

Continuous Duty

Class B Insulation

3000 RPM

Thermally protected

Rated for Indoor or Outdoor Use

GP301C / GP501C Rated for Commercial Use

LISTED
Electric Fan



77728

Tested to
UL
Std. 507

IMPORTANT INSTRUCTIONS TO INSTALLER

Inspect the GPx01/XP/XR Series Fan for shipping damage within 15 days of receipt. Notify RadonAway of any damages immediately. Radonaway is not responsible for damages incurred during shipping. However, for your benefit, Radonaway does insure shipments.

There are no user serviceable parts inside the fan. Do not attempt to open. Return unit to factory for service.

Install the GPx01/XP/XR Series Fan in accordance with all EPA standard practices, and state and local building codes and state regulations.

WARRANTY

Subject to any applicable consumer protection legislation, RadonAway warrants that the GPX01/XP/XR/RP Series Fan (the "Fan") will be free from defects in materials and workmanship for a period of 90 days from the date of purchase (the "Warranty Term").

RadonAway will replace any Fan which fails due to defects in materials or workmanship. The Fan must be returned (at Owner's cost) to the RadonAway factory. Any Fan returned to the factory will be discarded unless the Owner provides specific instructions along with the Fan when it is returned regardless of whether or not the Fan is actually replaced under this warranty. Proof of purchase must be supplied upon request for service under this Warranty.

This Warranty is contingent on installation of the Fan in accordance with the instructions provided. This Warranty does not apply where any repairs or alterations have been made or attempted by others, or if the unit has been abused or misused. Warranty does not cover damage in shipment unless the damage is due to the negligence of RadonAway.

5 YEAR EXTENDED WARRANTY WITH PROFESSIONAL INSTALLATION

RadonAway will extend the Warranty Term of the fan to 5 years from date of manufacture if the Fan is installed in a professionally designed and professionally installed radon system or installed as a replacement fan in a professionally designed and professionally installed radon system. Proof of purchase and/or proof of professional installation may be required for service under this warranty. Outside the Continental United States and Canada the extended Warranty Term is limited to one (1) year from the date of manufacture.

RadonAway is not responsible for installation, removal or delivery costs associated with this Warranty.

EXCEPT AS STATED ABOVE, THE GPX01/XP/XR/RP SERIES FANS ARE PROVIDED WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING, WITHOUT LIMITATION, IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

IN NO EVENT SHALL RADONAWAY BE LIABLE FOR ANY DIRECT, INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES ARISING OUT OF, OR RELATING TO, THE FAN OR THE PERFORMANCE THEREOF. RADONAWAY'S AGGREGATE LIABILITY HEREUNDER SHALL NOT IN ANY EVENT EXCEED THE AMOUNT OF THE PURCHASE PRICE OF SAID PRODUCT. THE SOLE AND EXCLUSIVE REMEDY UNDER THIS WARRANTY SHALL BE THE REPAIR OR REPLACEMENT OF THE PRODUCT, TO THE EXTENT THE SAME DOES NOT MEET WITH RADONAWAY'S WARRANTY AS PROVIDED ABOVE.

For service under this Warranty, contact RadonAway for a Return Material Authorization (RMA) number and shipping information. No returns can be accepted without an RMA. If factory return is required, the customer assumes all shipping cost to and from factory.

RadonAway
3 Saber Way
Ward Hill, MA 01835
TEL: (978) 521-3703
FAX (978) 521-3984

Record the following information for your records:

Serial No. _____
Purchase Date _____

ATTACHMENT

3

RESULTS OF POST TREATMENT VACUUM TESTING
AT 20 WELCHER AVENUE, PEEKSKILL, NEW YORK

All results are reported in inches of water column

TEST POINT 1 -0.055 INCHES OF WATER COLUMN

TEST POINT 2 -0.223 INCHES OF WATER COLUMN

TEST POINT 3 -0.131 INCHES OF WATER COLUMN

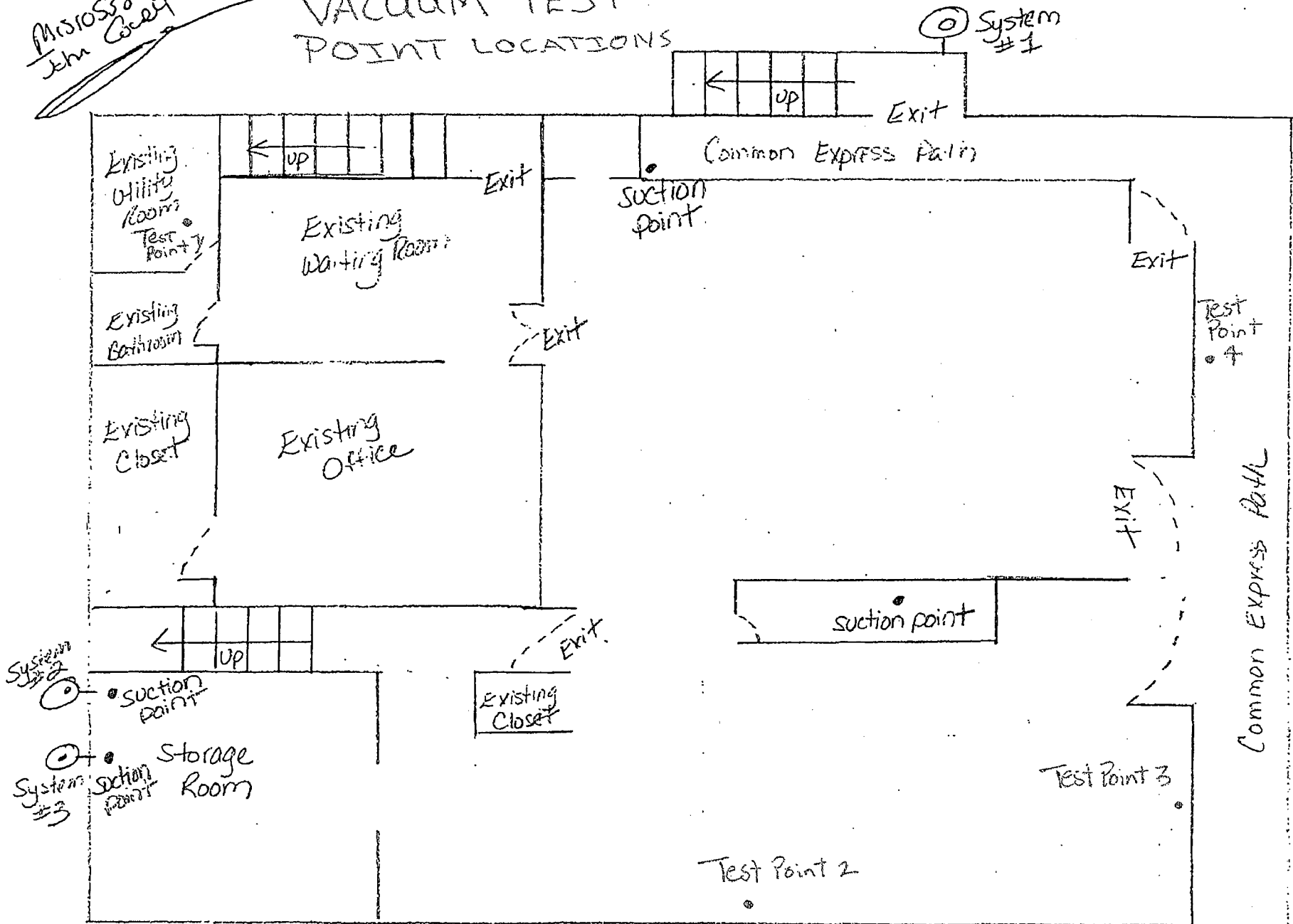
TEST POINT 4 -0.101 INCHES OF WATER COLUMN

All measurements were taken using a Dwyer Digital Micromanometer capable of measuring to -0.000 inches of water column.

New York State Department of Health suggests an induced vacuum of -0.004 inches of water column or 1 Pascal be the goal of a successful ASDS installation

M1010538
Jm Gert

VACUUM TEST POINT LOCATIONS



Go No Sen Karate Dojo
20 Welcher Ave Peekskill, NY

Drawing Not to Scale.

Front of Building

ATTACHMENT

4

**PERMIT APPLICATION HAS BEEN
MADE (ATTACHED). PICK-UP AND
DISPOSAL IS PENDING U.S.E.P.A
DISPOSAL NUMBER. MANIFEST
WILL FOLLOW UNDER A SEPARATE
COVER**



RAdata

27 Ironia Road, Unit 2
Flanders, New Jersey 07836
973-927-7303 973-927-4980 fax
1-800-447-2366

January 3, 2011

**USEPA Region 2
DEPP-RCRA Programs Branch
Attn: RCRA Notifications
290 Broadway, 22nd Floor
New York, NY 10007-1866**

**Re: RCRA Subtitle C Site Identification Form
Site Location: 20 Welcher Ave, Peekskill, NY**

Dear DEPP-RCRA Programs Branch:

Please find enclosed our application to request an EPA ID Number for the removal of the contaminated soil at the above site.

Please contact me at my office when you are ready to issue to the ID Number. I will be coordinating the removal.

Please feel free to contact us with any questions.

Thank you,

**Lisa Francis
Mitigation Department**

c: file

SEND COMPLETED FORM TO: The Appropriate State or Regional Office.	United States Environmental Protection Agency RCRA SUBTITLE C SITE IDENTIFICATION FORM		
1. Reason for Submittal MARK ALL BOX(ES) THAT APPLY	Reason for Submittal: ☒ To provide an Initial Notification (first time submitting site identification information / to obtain an EPA ID number for this location) ☐ To provide a Subsequent Notification (to update site identification information for this location) ☐ As a component of a First RCRA Hazardous Waste Part A Permit Application ☐ As a component of a Revised RCRA Hazardous Waste Part A Permit Application (Amendment # _____) ☐ As a component of the Hazardous Waste Report (If marked, see sub-bullet below) ☐ Site was a TSO facility and/or generator of $\geq 1,000$ kg of hazardous waste, >1 kg of acute hazardous waste, or >100 kg of acute hazardous waste spill cleanup in one or more months of the report year (or State equivalent LQG regulations)		
2. Site EPA ID Number	EPA ID Number 		
3. Site Name	Name: <u>Belmont Shopping Center</u>		
4. Site Location Information	Street Address: <u>20 Welcher Avenue</u>		
	City, Town, or Village: <u>Peekskill</u>		County: <u>Westchester</u>
	State: <u>New York</u>	Country: <u>United States</u>	Zip Code: <u>10566</u>
5. Site Land Type	☒ Private ☐ County ☐ District ☐ Federal ☐ Tribal ☐ Municipal ☐ State ☐ Other		
6. NAICS Code(s) for the Site (at least 6-digit codes)	A. 4 4 5 1 1 1	C. 4 5 3 1 1 1	
	B. 4 4 6 1 1 1	D. 4 5 3 1 1 1	
7. Site Mailing Address	Street or P.O. Box: <u>20 Welcher Avenue</u>		
	City, Town, or Village: <u>Peekskill New York</u>		
	State: <u>New York</u>	Country: <u>United States</u>	Zip Code: <u>10566</u>
8. Site Contact Person	First Name: <u>Fred</u>		MI: Last: <u>Schwab</u>
	Title: <u>Manager</u>		
	Street or P.O. Box: <u>P.O. Box 383</u>		
	City, Town or Village: <u>Croton-on-Hudson</u>		
	State: <u>New York</u>	Country: <u>US</u>	Zip Code: <u>10520</u>
	Email: <u>jfschwab@aol.com</u>		
	Phone: <u>914-271-5706</u>	Ext.:	Fax:
9. Legal Owner and Operator of the Site	A. Name of Site's Legal Owner: <u>KURTSMAN REALTY</u>		Date Became Owner: <u>3/3/1986</u>
	Owner Type: ☒ Private ☐ County ☐ District ☐ Federal ☐ Tribal ☐ Municipal ☐ State ☐ Other		
	Street or P.O. Box: <u>P.O. Box 383</u>		
	City, Town, or Village: <u>Croton-on-Hudson</u>		Phone: <u>914-271-5706</u>
	State: <u>New York</u>	Country: <u>US</u>	Zip Code: <u>10520</u>
	B. Name of Site's Operator: <u>Kurtzman Realty</u>		Date Became Operator: <u>3/3/1986</u>
	Operator Type: ☒ Private ☐ County ☐ District ☐ Federal ☐ Tribal ☐ Municipal ☐ State ☐ Other		

10. Type of Regulated Waste Activity (at your site)
Mark "Yes" or "No" for all current activities (as of the date submitting the form); complete any additional boxes as instructed.**A. Hazardous Waste Activities; Complete all parts 1-7.**

- 1. Generator of Hazardous Waste**
If "Yes", mark only one of the following - a, b, or c.
- ☐ a. LQG: Generates, in any calendar month, 1,000 kg/mo (2,200 lbs./mo.) or more of hazardous waste; or Generates, in any calendar month, or accumulates at any time, more than 1 kg/mo (2.2 lbs./mo) of acute hazardous waste; or Generates, in any calendar month, or accumulates at any time, more than 100 kg/mo (220 lbs./mo) of acute hazardous spill cleanup material.
- ☐ b. SQG: 100 to 1,000 kg/mo (220 - 2,200 lbs./mo) of non-acute hazardous waste.
- ☐ c. CESQG: Less than 100 kg/mo (220 lbs./mo) of non-acute hazardous waste.
- If "Yes" above, indicate other generator activities.
- ☐ d. Short-Term Generator (generate from a short-term or one-time event and not from on-going processes). If "Yes", provide an explanation in the Comments section.
- ☐ e. United States Importer of Hazardous Waste
- ☐ f. Mixed Waste (hazardous and radioactive) Generator
- 2. Transporter of Hazardous Waste**
If "Yes", mark all that apply.
- ☐ a. Transporter
- ☐ b. Transfer Facility (at your site)
- 3. Treater, Storer, or Disposer of Hazardous Waste**
Note: A hazardous waste permit is required for these activities.
- 4. Recycler of Hazardous Waste**
- 5. Exempt Boiler and/or Industrial Furnace**
If "Yes", mark all that apply.
- ☐ a. Small Quantity On-site Burner Exemption
- ☐ b. Smelting, Melting, and Refining Furnace Exemption
- 6. Underground Injection Control**
- 7. Receives Hazardous Waste from Off-site**

B. Universal Waste Activities; Complete all parts 1-2.

- 1. Large Quantity Handler of Universal Waste** (you accumulate 5,000 kg or more) [refer to your State regulations to determine what is regulated]. Indicate types of universal waste managed at your site. If "Yes", mark all that apply.
- a. Batteries ☐
- b. Pesticides ☐
- c. Mercury containing equipment ☐
- d. Lamps ☐
- e. Other (specify) _____ ☐
- f. Other (specify) _____ ☐
- g. Other (specify) _____ ☐
- 2. Destination Facility for Universal Waste**
Note: A hazardous waste permit may be required for this activity.

C. Used Oil Activities; Complete all parts 1-4.

- 1. Used Oil Transporter**
If "Yes", mark all that apply.
- ☐ a. Transporter
- ☐ b. Transfer Facility (at your site)
- 2. Used Oil Processor and/or Re-refiner**
If "Yes", mark all that apply.
- ☐ a. Processor
- ☐ b. Re-refiner
- 3. Off-Specification Used Oil Burner**
- 4. Used Oil Fuel Marketer**
If "Yes", mark all that apply.
- ☐ a. Marketer Who Directs Shipment of Off-Specification Used Oil to Off-Specification Used Oil Burner
- ☐ b. Marketer Who First Claims the Used Oil Meets the Specifications

EPA ID Number

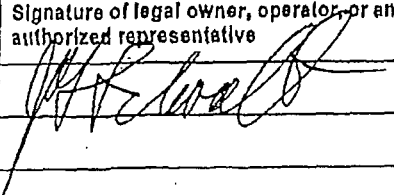
OMB#: 2050-0024; Expires 11/30/2011

12. Notification of Hazardous Secondary Material (HSM) Activity

Y ☐ N ☐ Are you notifying under 40 CFR 260.42 that you will begin managing, are managing, or will stop managing hazardous secondary material under 40 CFR 261.2(a)(2)(ii), 40 CFR 261.4(a)(23), (24), or (25)?If "Yes", you must fill out the Addendum to the Site Identification Form: Notification for Managing Hazardous Secondary Material.

13. Comments

14. Certification. I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations. For the RCRA Hazardous Waste Part A Permit Application, all owner(s) and operator(s) must sign (see 40 CFR 270.10(b) and 270.11).

Signature of legal owner, operator, or an authorized representative	Name and Official Title (type or print)	Date Signed (mm/dd/yyyy)
	Fred Schwalb, Manager	12/12/10

D. Eligible Academic Entities with Laboratories—Notification for opting into or withdrawing from managing laboratory hazardous wastes pursuant to 40 CFR Part 262 Subpart K

- ❖ You must check with your State to determine if you are eligible to manage laboratory hazardous wastes pursuant to 40 CFR Part 262 Subpart K

☐ 1. Opting into or currently operating under 40 CFR Part 262 Subpart K for the management of hazardous wastes in laboratories. See the item-by-item instructions for definitions of types of eligible academic entities. Mark all that apply:

- ☐ a. College or University
☐ b. Teaching Hospital that is owned by or has a formal written affiliation agreement with a college or university
☐ c. Non-profit Institute that is owned by or has a formal written affiliation agreement with a college or university

☒ 2. Withdrawing from 40 CFR Part 262 Subpart K for the management of hazardous wastes in laboratories

11. Description of Hazardous Waste

A. Waste Codes for Federally Regulated Hazardous Wastes. Please list the waste codes of the Federal hazardous wastes handled at your site. List them in the order they are presented in the regulations (e.g., D001, D003, F007, U112). Use an additional page if more spaces are needed.

B. Waste Codes for State-Regulated (i.e., non-Federal) Hazardous Wastes. Please list the waste codes of the State-Regulated hazardous wastes handled at your site. List them in the order they are presented in the regulations. Use an additional page if more spaces are needed.

ATTACHMENT

5



RAdata, Inc.

27 Ironla Road, Unit 2
Flanders, New Jersey 07836
973-927-7303 973-927-4980 fax
1-800-447-2366

URGENT!

10/4/2010

TO: Kurtsam Realty or Current Resident
Attention: Fred Schwalb
Box 383 Quaker Ridge Road
Croton-On-Hudson NY 10520

PROPERTY: Blue Mountain Plaza
20 Welcher Avenue
Peekskill NY 10566

Enclosed are the permits from the local municipality for the system installed at the above property. At this point it is mandatory for you to contact your municipality, give them your permit number (located at the top right side of your permits) and schedule a final inspection (a final inspection is required for each permit application). The number(s) you will need are listed below. Once the final inspection is completed, you must phone our office so that we can close out your file. If you have any questions, please phone our office. This must be completed within 30 days.

- x Building Inspection, please call 914-734-4140
- x Electric Inspection, please call

****Failure to complete these inspections could result in the following complications:****

- 1.) Loss of Radon reduction warranty.
- 2.) Up to \$500.00 in fines.
- 3.) Charge back of fines and penalties assessed to our firm.
- 4.) Lien placed on title of property.
- 5.) Inability to transfer title until inspection is complete.

Thank you,
David Grammer, President

*Inspection
done
10/21/10
passed*

TO BE KEPT ON THE WORK

CITY OF PEEKSKILL
DEPARTMENT OF PUBLIC WORKS
BUILDING DEPT.

11601

Municipal Building, Peekskill, N.Y.

PERMIT

Fee 190⁰⁰

Permission is hereby granted to install soil depressurization system (radon)
Location 20 Welch Avenue (KARATE Studio)
Owner KUNTSAM REALTY Address 383 Quaker Ridge Road
Chickering Hill, NY
Contractor RADATA INC. Address 27 Ironia Rd, Flinders N.J. 07834
Dimensions (overall) 40' x 40' approx Materials CONVENTIONAL

Foundations { Thickness below grade Materials below grade
Thickness above grade Materials above grade

Footings: Dimensions Depth below grade ft. in.

Thickness of { Outside Walls 1st 2nd 3rd 4th 5th 6th
Division Walls

Stories High Distance from Street line

Kind of Roof Material of Roof

Size of Joists 1st 2nd 3rd 4th 5th 6th

Special Conditions Subject to notes on plans, field inspections, etc. certificate

Date of Issue Sept 30 20 10 Expiration date Sept 30 20 11

Director of Public Works [Signature]

This permit is granted upon the express condition that every person acting under same shall conform to the representations of the application thereof as well as all Building, Zoning and other Ordinances of the City of Peekskill and Statutes of this State. This permit must be kept on the work to which it applies at all times during working hours, and may be revoked at any time for a breach of its conditions.

ATTACHMENT

6

GENERAL HEALTH AND SAFETY PLAN

for

**KURTSAM REALTY
20 WELCHER AVENUE**

PEEKSKILL, NY

October 19, 2010

Prepared by:

Gary P. Schwartz

PHASE Associates, LLC

316 Eisenhower Pkwy

Livingston, New Jersey 07039

Gary P. Schwartz, CIH, CSP, CMC

Signature of Preparer

RAdata, Inc.

27 Ironia Road

Flanders, NJ 07836

973-927-7303

800-447-2366

973-927-8221(f)

HASP-Kurtsam Realty

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SECTION 1.0
PROJECT IDENTIFICATION

PROJECT NUMBER: _____

PROJECT NAME: Installation of Active Soil Depressurization Systems

LOCATION/ADDRESS: 20 Welcher Avenue, Peckskill, NY

PROJECT MANAGER: Blair B. Miers, RAdata, Inc.

SAFETY MANAGER: David Grammer, RAdata, Inc.

SECTION 2.0
INTRODUCTION

The purpose of this Health and Safety Plan (HASP) is to identify, evaluate and control radiation and chemical health and safety hazards, and to provide for emergency response during field activities. All employees of RAdata, Inc., (RAdata) as well as its contractors and subcontractors who have agreed to abide by this, and who are involved in field activities on this project, will be bound by these provisions. Contractors and subcontractors who abide by this HASP, but whose work activities are not covered by this HASP must develop and follow their own site specific HASP.

RAdata's Company's HASP is based on a general review and evaluation of potential hazards and risks regarding most projects. It outlines the health and safety procedures, and the equipment required, needed to minimize the potential for harm to field personnel and site visitors. A separate site-specific HASP will be required for each project. This is because work activities, site conditions and exposures to various combinations of contaminants present are variable.

2.1 SITE DESCRIPTION & HISTORY

This project is occurring at 20 Welcher Avenue in Peckskill, NY.

2.2 KEY PERSONNEL

2.1.1 Responsible Person of HASP: David Grammer, President or his designee

This person will have the following responsibilities:

- To provide the Health and Safety Officer with project-related health and safety information to keep this document updated.
- To implement the HASP.
- To monitor compliance with the HASP.

2.1.2 Health and Safety Officer: Blair Miers

The Health and Safety Officer has the following responsibilities:

- To monitor compliance with the HASP.
- To assist in complying with the terms of this HASP, and applicable regulations.

The Health and Safety Officer has the authority to take the following actions:

- To suspend work or otherwise limit personnel exposure if this HASP appears to be unsuitable or inadequate.
- To direct personnel to modify any work practices that are deemed to be hazardous to health and safety.
- To remove field personnel from the project if their physical actions or mental condition endangers their own health and safety, or that of their coworkers.

3.1 PERSONNEL MEDICAL CLEARANCE

Prior to working at any site, RAdata assigned employees must: 1) be certified by a licensed, RAdata-approved physician as being physically able to perform their assigned field work, and to use the Personal Protective Equipment (PPE) which may be required for this project, in accordance with the provisions of OSHA Regulation 29 CFR 1910.120(f)(2) have successfully completed an 40-hour basic health and safety training course (Level C) for field personnel or its equivalent, and 3) passed a Quantitative Respirator Fit Test. Site managers and supervisors must have successfully completed an 8-hour managers' health and safety course, in addition to the other clearance requirements.

RAdata subcontractor employees must also have similar medical, training, and respirator fit clearances and they will be required to provide proof of clearance before beginning work.

3.2 HAZARD TRAINING

All personnel working on-site who have potential exposures to health or safety hazards shall be thoroughly trained as specified in OSHA Regulations 29 CFR 1910.120(e). This training will include: (1) Attendance at an initial Respiratory Protection Course; (2) Seal checked and Fit tested through an acceptable OSHA quantitative fit test method. All personnel should have successfully completed the 40 hour Hazardous Waste Operations and Emergency Response course and annual 8 hour refresher courses.

In addition to the above, all RAdata personnel should be versed on the company's safety and health program and employee training program; personal protective equipment program; spill containment program; air quality monitoring (by Bell Environmental); emergency response; monitoring equipment usage and calibration; and, health hazard monitoring procedures and techniques.

At the time of job assignment, special training will be provided to on-site personnel who may be exposed to unique or special hazards. If unique or special hazards are unexpectedly encountered, specialized training will be provided before work proceeds.

3.3 INCIDENT REPORTING

A Health & Safety Incident Report will be filed for any incident involving personnel working at a Site. Situations covered by this policy include, but are not limited to, inhalation, hand or eye injuries. Worker's Compensation Insurance reports for RAdata employees must be filed within 48 hours of each incident or illness which results from work-related activities and requires medical attention.

3.4 ILLUMINATION, SANITATION AND CONFINED SPACE ENTRY

3.4.1 Illumination

If the project work is expected to occur inside the building, the illumination requirements set forth by OSHA Regulations 29 CFR 1910.120 (m) will be met.

3.4.2 Sanitation

The sanitation requirements regarding potable and non-potable waters, toilet facilities and washing facilities will be followed as set forth in OSHA Regulations 29 CFR 1910.120(n).

3.4.3 Confined Space Entry

Confined Space Entries are not anticipated since personnel will not be entering the drill pipe chase or network.

3.5 RESPIRATOR MAINTENANCE, FITTING AND DECONTAMINATION

Respirators will be cleaned daily according to procedures described below. Cartridges will be replaced either daily or if breakthrough is detected at any time while in use. The following checks will be performed daily, in addition to the above:

- Exhalation valve - pull off plastic cover and check valve for debris or for tears in the neoprene valve, which could cause leakage.
- Inhalation valves - screw off both cartridges and visually inspect neoprene valves for tears. Make sure that the inhalation valves and cartridge receptacle gaskets are in place.
- Make sure a protective lens cover is in place.
- Make sure you have the correct cartridges.
- Make sure that the face piece harness is not damaged. The serrated portion of the harness can fragment which will prevent proper face seal adjustment.
- Make sure the speaking diaphragm retainer ring is hand tight.

NOTE: The respirator MUST be Leak-Tested before each use.

Test the respirator for leakage by using both the positive- and the negative-pressure method. Lightly place your palm over the exhalation valve cover. Exhale gently. The body of the respirator should bulge slightly outward from your face. If any leakage is detected around the face seal, readjust the head harness straps and repeat the test until there is no leakage. If leakage is detected other than in the face seal, the condition must be investigated and corrected before another test is made. The negative pressure test must also be made. Lightly place your palms or some impervious material, like Saran Wrap® over the cartridges or filter holders. Inhale gently. The face-piece should collapse against the face. The respirator must pass these two tightness tests before the respirator is used. The respirator will not furnish protection unless all inhaled air is drawn through suitable cartridges or filters. **NOTE: Respirators provide no protection in oxygen-deficient atmospheres!**

After use, follow these steps to clean your respirator:

- Wash with Alconox® solution and brush gently. (This step will remove any soil/solid particulate matter that may have been collected on the respirator during field activities.)
- Rinse with distilled/de-ionized water, making sure that the inhalation and exhalation valves are clean and unobstructed.
- Wipe with sanitizing solution. (This step will assure the sterility of the respirator.)
- Allow your respirator to air dry.
- Place the respirator inside a sealed bag or a clean area away from extreme heat or extreme cold.

3.6 PROJECT MANAGER NOTIFICATION

All field personnel must inform the Project Manager before entering a building Site.

IF ANY PREVIOUSLY UNIDENTIFIED POTENTIAL HAZARDS ARE DISCOVERED DURING ANY FIELD WORK, LEAVE THAT AREA OF THE SITE IMMEDIATELY AND CONTACT THE PROJECT MANAGER FOR FURTHER INSTRUCTIONS.

3.7 OSHA INFORMATION AND STATE WAGE AND INFORMATION POSTERS

In accordance with the Occupational Safety and Health Act of 1970, a copy of the OSHA information poster must be present at the Site. It will be posted at full size (11" x 17") in a permanent structure or temporary field office, or be distributed to on-site personnel by way of this HASP. Appropriate state of New Jersey wage and employment posters will also be posted in accordance with state laws.

3.8 PROHIBITIONS

Smoking, eating, drinking, chewing tobacco or toothpicks, applying cosmetics, storing food or food containers, and having open fires will be permitted only in designated areas that will be established by the Project Manager. Under no circumstances will any of the above activities be permitted within the Exclusion or Contamination Reduction Zones. Good personal hygiene should be practiced by field personnel to avoid ingesting contaminants.

3.9 INITIAL SITE SAFETY MEETING AND SIGNING THE HEALTH AND SAFETY PLAN COMPLIANCE AGREEMENT

The project manager will hold an initial site safety meeting with RAdata, subcontractor and contractor field personnel before work activities begin at any Site. At this meeting, it will be verified that all personnel have been provided with or have reviewed a HASP for the work activities to be performed at a Site. For RAdata personnel, its subcontractor's personnel, and contractor personnel whose employer(s) have adopted this HASP, the HASP shall be reviewed, discussed and questions will be answered. Signed Health and Safety Plan Compliance

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Agreement Forms of personnel who will be following this HASP will be collected by the project manager and filed. Individuals refusing to sign the Form will not be allowed to work on the Site.

3.10 DAILY SITE SAFETY BRIEFINGS

During field operations, site safety briefings will be held at the start of each day by the project manager to review and plan specific health and safety aspects of scheduled work. All field personnel who are following this HASP are required to attend these briefings. These meetings and their content shall be documented by the Project Manager. Potential subjects that may be discussed are presented below:

1. Preliminary
 - Medical clearances.
 - Training requirements.
 - Written HASP availability.
 - Designation of responsibilities for on-site personnel.
 - Identification of on-site personnel trained and certified to administer First Aid.
2. Training topics
 - Review of site specific HASP including: types of hazards; pathways of exposure; levels of protection; contamination avoidance; prohibitions; work procedures; confined space entry; work zones; emergency response procedures; and, specific on-site area/work tasks of concern.
 - Decontamination.
 - Personnel Protective Equipment.
 - Air Quality Monitoring Program.
 - Questions and Answers

3.11 UNDERGROUND STRUCTURES

Caution will be exercised whenever the possibility of encountering subsurface obstructions exists. Before beginning intrusive activities, all available sources of information (such as site utility drawings, public utility drawings, construction drawings, and discussions with former employees) will be reviewed. If underground obstructions are unexpectedly encountered, the area will be excavated using manual equipment until the nature of the obstruction is discerned.

SECTION 4.0
HAZARD ASSESSMENT

An assessment of the known or suspected chemical and physical hazards have been made for each of the activities specified below.

4.1 APPROVED WORK ACTIVITIES

Work activities which may be performed under this HASP are limited to the following: This HASP does not cover any site activities. These would be found in the project site specific HASPs.

4.2 HAZARDS

4.2.1 Chemical Agents

Ensure that all specific chemical hazards be identified and in concentrations in excess of the NJDEP Indoor Air Screening Level are reviewed. A full listing of chemicals, current through August 2006 is found in Attachment A, while the chemicals found on-site are listed below.

**TABLE 4.2.1 SUMMARY DATA FOR CONTAMINANT CONCENTRATION IN
EXCESS OF THE NJDEP INDOOR AIR SCREENING LEVEL**

Contaminant Of Concern	CAS #	OSHA PEL (TWA)	IDLH	Flam- mable?	Carcin- ogen?	Residential Health-based Values	Nonresidential Health-based Values

4.2.1.1 Chemical Exposure Evaluation Criteria

For chemical agents, the primary sources of environmental evaluation criteria for the workplace are: (1) NIOSH Recommended Exposure Limits (RELs), (2) the American Conference of Governmental Industrial Hygienists' (ACGIH®) Threshold Limit Values (TLVs®) and (3) the U.S. Department of Labor, Occupational Safety and Health Administration (OSHA) Permissible Exposure Limits (PELs).

Contaminants usually enter the body through the mouth (ingestion), the lung (inhalation) or by absorption through the skin and mucous membranes. Chemical exposure through these routes will be controlled by limiting eating, drinking, and smoking to uncontaminated areas; through the use of hygiene practices and decontamination procedures; and by the use of appropriate engineering controls and personal protective equipment (PPE).

There are four levels of personal protection (Levels A, B, C, and D), according to the degree of protection they afford, with Level A providing the greatest degree of protection. The initial level of personal protective equipment to be used while performing activities at a Site will be based on the hazard assessment performed for the project.

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Level D will be used while performing activities at a site unless results of initial Photoionization Detector (PID) results show elevated VOC and/or radon gas airborne values. The building should be placed under positive ventilation to dilute the elevated airborne VOC and radon emissions. If this fails to lower the airborne VOCs and/or radon, then personnel must don for level C protection.

4.2.2 Ionizing Radiation and Radioactive Agents

As a guide to the evaluation of the hazards posed by workplace exposures, NIOSH field staff use environmental evaluation criteria to assess a number of chemical and physical agents. For physical agents such as ionizing radiation, the primary sources of environmental evaluation criteria for the workplace are: (1) the National Council on Radiation Protection and Measurements (NCRP) limits of exposure to ionizing radiation (2) the International Commission on Radiological Protection (ICRP) limits of exposure to ionizing radiation, (3) the U.S. Department of Labor, OSHA PELs (4) the U.S. Department of Energy (DOE) standards for external and internal exposure, (5) the U.S. Nuclear Regulatory Commission (NRC) occupational dose limits (6) the U.S. Environmental Protection Agency (EPA) federal radiation protection guidance for occupational exposure (6) the Food and Drug Administration (FDA) performance standards for ionizing radiation emitting products (7) the U.S. Department of Transportation (DOT) radiation limits for Transportation of radioactive materials (8) the International Air Transportation Association (IATA) radiation protection and quality assurance programs and (9) the International Atomic Energy Agency (IAEA) occupational radiation protection safety standards.

Natural radiation background exposure varies around the world from less than 0.005 mR/hr to more than 2.5 mR/hr¹⁹, producing an annual dose of about 40 millirem (mrem) to 22,000 mrem^b, respectively. The greatest dose is due to anomalous, localized deposits of NORM. Variations in the natural radiation a 1 pCi/L = 37 Becquerel per cubic meters (Bq/m³)
b A millirem is a unit of measure of ionizing radiation exposure of living tissues that takes into account the differences in biological harm (Relative Biological Effectiveness [RBE factor]) caused by different types of ionizing radiation.

The average annual background dose in the United States has been reported to be about 360 mrem. Radon exposure is responsible for about 55% of background dose (about 200 mrem) and is greater where the presence of NORM material (uranium and thorium) is elevated. Cosmic radiation produces an annual dose of 27 mrem (8%) and terrestrial radiation from NORM in the crust of the earth accounts for 28 mrem (8%). Radiation exposure from internally deposited radioactive material, mainly potassium-40, delivers about 39 mrem (11%) to each person. Medical and other manmade sources of radiation exposure (including consumer products) account for about 63 mrem (18%). Other industrial sources of radiation exposure account for only 3 mrem (0.3%) and include the nuclear fuel cycle, fallout, and artificial sources.

Important forms of ionizing radiation include the alpha and beta particles and gamma rays emitted from radioactive materials. These are called ionizing radiation because they can remove (knock) electrons out of atoms and molecules, creating electrically charged particles called ions. This ionization process transfers energy from the radiation to the irradiated material, and can cause chemical and physical changes in human tissue. The various types of ionizing radiation differ widely in their abilities to penetrate tissue and deposit energy. Alpha particles travel only a very short distance (less than 1 mm) in living tissue and thus cannot

penetrate the skin. These particles are present with radon and two of the radon decay products. Beta particles are identical to electrons, are thousands of times smaller than alpha particles, and can penetrate deeper into tissue. However, they are easily stopped by a thin sheet of metal foil. Gamma rays have no mass or electrical charge, and travel much greater distances than either alpha or beta particles. This means their energy is deposited over a longer path and is relatively unlikely to damage living tissue unless the exposure rate is high.

4.2.3 Radium

Radium, formed upon the radioactive decay of uranium and thorium, is a naturally occurring silvery-white radioactive metal that can exist in several forms called isotopes. Two of the main radium isotopes found in the environment are ²²⁶Ra (uranium decay series; Appendix I) and radium-228 (²²⁸Ra, thorium decay series). Historically, radium has been used as a radiation source for treating cancer and in radiography of metals. It has been combined with other metals as a neutron source for research and radiation instrument calibration. Radium was also a component of luminous paints used for watch and clock dials, aircraft instrument panels, military instruments, and compasses. The EPA has set a drinking water limit of 5 pCi/L for ²²⁶Ra and ²²⁸Ra (combined).

4.2.4 Radon in Air

Radon is a colorless, odorless, tasteless, radioactive gas formed from the radioactive decay of radium in the uranium decay chain. Uranium and radium are found around the world in soil, rocks, and water at various concentrations. Because radon is a gas, it may escape into the air from the material in which it is formed; therefore radon gas is ubiquitous outdoors as well as indoors. High concentrations of radon can accumulate in poorly ventilated indoor locations or when a large amount of ²²⁶Ra is present. Radon decays with a half-life of about 4 days into a series of solid, short-lived radioisotopes commonly called radon daughters or progeny. Two progeny, polonium-218 and polonium-214, emit alpha particles and are responsible for most of the health effects associated with inhalation of radon and its decay products.

4.2.5 Airborne Radioactivity Government standards and Guideline Exposure Levels

1 WLM / year (2040 hrs per year)

0.083 WLM (170 hrs)

NIOSH Recommended Exposure 0.083 WL (average concentration per work shift)

Limits 20.8 pCi/L (40% Equilibrium Factor; EF)

16.6 pCi/L (50% EF)

8.3 pCi/L (100% EF)

100 pCi/L (40 hr work week)

OSHA Permissible Exposure

Limits (1971 regulation) 25 pCi/L (posting requirement for airborne radioactivity)

3 pCi/L (40 hr work week for workers less than 18 yrs old)

NRC Occupational Exposure 30 pCi/L (yearly avg); Derived Air Concentration

Limits 3 pCi/L (yearly average for workers less than 18 yrs old)

EPA Recommended Public Limit 4 pCi/L (non-occupational action limit to initiate remediation efforts)

IAEA Recommended 4 WLM

Occupational Dose Limits* 32.4 pCi/L (2000 hrs per year; 40% EF)

WLM = Working Level Months pCi/L = picoCuries per liter

* The IAEA recommendations correspond to an annual effective dose of 2 rem (0.02 Sievert, Sv).

The major route of radon exposure is inhalation. The typical concentration range for radon in ambient air is 0.003 to 2.6 pCi/L. A typical level of radon found indoors in homes, schools, or office buildings is about 1.5 pCi/L, although much higher concentrations (> 200 pCi/L) have been measured. Persons who work with uranium and phosphate fertilizers, persons living near uranium mines and processing facilities, and persons handling fossils and other artifacts rich in uranium or radium have a greater chance of being exposed to higher levels of uranium, radium, and radon than the general population.

4.2.6 OSHA Interpretation of Radon in the Workplace

In December 2002, OSHA provided guidance on its regulations regarding proper interpretation of the workplace radon standards. The OSHA standard refers to airborne radioactive material exposure limits that were published by the Atomic Energy Commission (AEC) in 1969. Both the AEC and the OSHA limits were for a 40-hour exposure in any workweek of 7 consecutive days. In 1996 the OSHA standard was redesignated as 29 CFR 1910.1096, although no changes were made to the exposure limits. The Nuclear Regulatory Commission (NRC) has since changed the format of the tables in Appendix B of 10 CFR Part 20 and converted the limits to annual averages, reduced the radon exposure limits, and moved limits for miners from the table to the regulatory text.

Case law supports the interpretation that the original version of a referenced federal regulation is the enforceable regulation. Therefore, the 1969 version of Appendix B to 10 CFR Part 20 that was referenced in the original OSHA ionizing radiation standard in 1971 is enforceable. The applicable 222Ra exposure limit issued by OSHA in 1971 for adult employees is 100 pCi/L averaged over a 40-hour work week. However, many requirements of the current NRC regulation provide as much or more protection than the OSHA standard for workers exposed to airborne radioactive materials. A series of questions and answers regarding radon exposure in the workplace is provided in Appendix II.

EPA Recommendations and Action Levels for Radon

The recommendations and action levels for indoor radon provided by the EPA are not enforceable for a working environment. However, the EPA and the U.S. Surgeon General issued a Health Advisory that recommends testing all homes for radon below the third floor and testing schools nationwide for radon.

They also recommended abating homes with radon levels that are at or above 4 pCi/L, the EPA National Voluntary Action Level. This level represents a radon concentration where the cost of remediation is warranted by the risk of health effects. The EPA believes that the indoor radon concentration can be lowered to 2 pCi/L fairly simply, and encourages homeowners, home

builders, and building code organizations to construct radon-resistant homes. Radon testing is encouraged when existing homes are sold.

4.2.7 Radon in Water

The EPA is proposing new public health standards for radon in drinking water. The proposal provides two options to states and community water systems for reducing radon health risks in both drinking water and indoor air. Information about the proposed rule and information relating to the status of the rule can be found at: www.epa.gov/safewater/radon.html.

The proposed regulation provides that states may adopt Multimedia Mitigation (MMM) programs and the Alternative Maximum Contaminant Level (AMCL) in water of 4,000 pCi/L. According to the EPA, the AMCL is the most effective approach for radon risk reduction and the one the EPA expects most states to adopt. In the absence of this regulatory expectation, small (10,000 or fewer customers) Community Water Systems (CWS) are expected to comply with a level of 4,000 pCi/L in drinking water, and develop and implement a state-approved local MMM program plan to reduce indoor radon risks from soil and rock under homes and buildings. If Arkansas has an approved MMM program plan, the 4,000 pCi/L standard for radon in drinking water would be adopted to obtain primacy. Under the proposed requirements, an MMM program plan must address four criteria:

1. Public involvement in development of the MMM program plan
2. Quantitative goals for existing homes fixed and new homes built radon resistant
3. Strategies for achieving goals
4. Plan to track and report results

The CWS must monitor radon in drinking water²², and report its results to the state. If the radon level is below 300 pCi/L, the CWS will need only to continue to meet monitoring requirements and will not be covered by the requirements regarding MMM programs.

4.2.8 Health Effects from Radium and Radon Exposures

Cancer is the major health effect of concern from exposure to radium, radon, and its short-lived progeny. Oral exposure to radium is known to cause lung, bone, brain, and nasal passage tumors in humans. Inhalation exposure to radon may cause lung cancer in humans. The EPA has classified radium as a Group A, human carcinogen, but it has not classified radon for carcinogenicity. Chronic exposure to radon in humans and animals via inhalation has resulted in respiratory effects (chronic lung disease, pneumonia, fibrosis of the lung), while animal studies have reported effects on the blood and a decrease in body weight. Smokers exposed to radon are at greater risk for lung cancer (approximately 10 to 20 times) than are nonsmokers similarly exposed. No information is available on the acute (short-term) effects of radium or radon in humans. Reference material for the Radioactivity and Radiation section came from: <http://www.cdc.gov/niosh/hhe/reports/pdfs/2004-0094-2978.pdf>.

4.2.9 Physical Agents

Physical agents include noise. There is also a risk of physical injury when working with powered drills, etc. Field personnel should be able to recognize these hazards and take steps to avoid injurious contact with them.

4.3.0 Noise Exposure

HASP- Kurtsam Really

Work at any site may be conducted with high noise levels from equipment such as drills. Standards require that hearing protection be used when noise levels exceed 85 dBA, averaged over an 8-hour day. Hearing protection will be required at this site for noise exposures greater than 85 dBA for any length of time. In the absence of a noise meter, an appropriate rule of thumb is that when normal conversation is difficult to hear or understand at a distance of three feet, hearing protection is required. RAdata personnel shall have hearing protection on-site and available for use at all times.

4.3.1 Safety Hazards

Use of steel-toed work boots, safety glasses or goggles, and hard hats will be required when in an Exclusion Zone. Personnel should be aware that when PPE such as respirators, gloves, and protective clothing are worn, visibility, hearing, and manual dexterity are impaired.

4.3.2 Drilling, Pile Driving and Excavation

The hazards involved with the use of drills and excavation equipment are significant and include pinch points, entrapment in machinery, impact from moving part and improper operations. Use of hand tools, moving the rigs/equipment, and conducting required repairs can increase physical risks. Working with and around a drills can involve a high risk of serious injury or death. In order to reduce the risk, proper safety precautions must be observed at all times.

4.3.3 Odors

During the course of excavation, odorous gases may escape from the core drill areas. The Project Manager for the site will determine the most effective means of exhausting these odors.

4.3.4 Contaminated Dust

Contaminated sub-surface soils may become a source of dust. Inhaling contaminated dust may result in adverse health effects from exposure to the contaminant(s) on the dust particles.

SECTION 5.0

AIR QUALITY MONITORING AND MEASURES
FOR THE CONTROL OF EMISSIONS

5.1 AIR QUALITY MONITORING INSTRUMENTATION

Air quality will be measured to determine exposure potentials prior to the start of work, and at various times during the course of the project. Instruments which may be used to monitor air quality are discussed below:

- Photoionization Detector

The HNu Systems Model PI-101 Photoionization Detector (PID) or equivalent should be used to detect trace concentrations of certain organic gases and a few inorganic gases in the air. Methane, ethane, and the major components of air are not detected by the HNu PID. PID readings reflect total (readable) vapors in the air. PID readings must be given as "PID units", rather than "ppm". The PID detects mixtures of compounds simultaneously. PID readings do not measure concentrations of any individual compound when a mixture of compounds is present.

The PID will be calibrated twice each day (before start of work and after the conclusion of work) using an isobutylene standard (molecular weight = 56.2) for calibration. Calibrations will be logged. PID readings should be measured in the breathing zone of the most highly exposed worker (i.e., the person who is closest to the source of known or suspected contamination) at least hourly.

5.2 AIR QUALITY RESPONSE LEVELS

The Project Manager for the site will decide when to change protection levels in response to air monitoring results. He will obtain the air monitoring results from Bell Environmental.

5.3 MONITORING GUIDELINES

5.3.1 Background Organic Vapor Monitoring

The Health and Safety Officer should monitor for background PID readings. They should be taken at least twice daily: before the start, and after the conclusion of, work activities. Background levels will be taken at a location which is unaffected by on-site work. Once work at the Site begins, reselection of the original background location may be required.

5.3.2 Air Monitoring Protocol

During intrusive work activities (i.e. drilling, excavation) at least one series (series=Organic Vapor, Toxic gas, Combustible gas, and Oxygen) of readings should be taken every 30 minutes. During non-intrusive work activities, one series will be performed at the start of work, one series at some point during the work, and one near the conclusion of the work. This will be in addition to the background monitoring described in the previous section.

5.3.3 Documenting Monitoring Results

A calibration log will be kept for each of the monitoring instruments used, which describes the calibration by the Project Manager for each project.

5.4 EMISSION CONTROL MEASURES

Vapor (i.e. volatile organic compounds) or dust (i.e. concrete oil or soil contaminated particulates) emissions resulting from field operations do not usually exceed either regulatory action levels. If the action levels are significantly exceeded, measures to suppress the responsible emissions should be investigated. Appropriate measures would include cessation of operations until the exact cause of the emission is identified and corrected. Vapor control may include purging the building with fresh air to create positive pressure conditions. Ensure the pails are sealed up immediately after they are filled with concrete and/or soil. This will prevent any potential vapor and or dust release into the building. Fugitive dust emission control is always a recommended practice using water spraying. However, this is not practical if the project is inside a building.

TABLE 5-1
Air Monitoring Action Levels

Instrument Type	Measurement Reading	Level of Respiratory Protection	Cartridge Change Schedule
PID (non-methane)	Background-0.5 ppm (in breathing zone)	Level D	Change out every two weeks
PID (non-methane)	>0.5 ppm (NT above background)	Level D	Change out every two weeks
*	< 1 WLM per annum or per NJDEP criteria for radon	Level D	Change out every two weeks
PID (non-methane)	PCE/TCE confirmed at or above 0.8-25ppm	Level C Lower range is for benzene exposure at OSHA PEL at 1 ppm	8 hour or end of shift whichever is shorter
PID (non-methane)	25 to 50 ppm	Stop work consult with Project Mgr.	8 hour or end of shift whichever is shorter
*	>1 WLM per annum or per NJDEP criteria for radon	Level C-utilize positive ventilation system prevent radon infiltration	8 hour or end of shift whichever is shorter

* testing devices to be used dictated per NJDEP worker exposure criteria

NOTE: If any breakthrough is experienced in terms of odor, taste and irritation while wearing the respirator, personnel shall immediately exit the exclusion zone and report the incident to the HSM. The cartridge change schedule shall be revisited and modified as necessary.

SECTION 6.0
PERSONAL PROTECTIVE EQUIPMENT

6.1 DESCRIPTION OF LEVELS OF PROTECTION

The personal protection equipment specified in this HASP will be available to all field personnel. RAdata is required to provide the specified equipment (or its equivalent) to all of their exposed employees. The following requirements will also be met, in accordance with OSHA regulations:

Facial hair may not interfere with the proper fit of respirators;
Contact lenses will not be worn on-site; without exception.
Eyeglasses that interfere with the proper fit of full-face respirators will not be worn;
and,
No eating, drinking or smoking will be allowed in any area where respiratory protection is required.

Modified Level D Personal Protective Equipment

- Hard hat
- Safety glasses or goggles
- Steel-toed leather work boots
- Rubber overboots, steel-toed rubber boots, or disposable "booties"
- Nitrile-butadiene rubber outer gloves
- Nitrile surgical gloves (to be work underneath outer gloves)
- Polyethylene coated Tyvek coveralls⁽¹⁾ (taped at cuffs)

Modified Level C Personal Protective Equipment

- Hard hat
- NIOSH Certified MSA Comfo Classic Half face or Advantage 3000 full face Air-Purifying Respirator with applicable chemical cartridge combined with a P-100 filter (depending on whether the airborne emissions is from VOCs and/or radon)
- Chemical resistant work boots
- Rubber overboots, steel-toed rubber boots, or disposable "booties"
- Nitrile-butadiene rubber outer gloves
- Nitrile surgical gloves (to be worn underneath outer gloves)
- Saranex impregnated Tyvek coveralls (taped at cuffs)

A first aid kit, multi-purpose dry chemical UL Class 10A-10B-C fire extinguisher, portable eye wash bottle, appropriate barricades should be available on Site.

Selection of the PPE specified for this project is based on a review of known or suspected hazards, routes of potential exposure (inhalation, skin absorption, ingestion, and skin or eye contact) and the effectiveness of personal protective equipment in providing a barrier to these hazards. In addition, PPE has been selected to match the work requirements and task-specific conditions of the job, and to provide adequate protection without causing unnecessary discomfort or physical impairment to the worker.

6.2 INITIAL PPE LEVELS FOR SPECIFIC WORK TASKS

The selection of Initial Levels-of-Protection takes into consideration the physical, biological and chemical hazards posed by the site as well as those posed by the various pieces of personnel protective clothing. Initial Levels-of-Protection are established so as to obtain acceptable levels of protection while not imposing an unacceptable level of physical stress on the wearer.

Ensure all initial PPE levels have been established for the tasks at each Project. Use the table below to list the level of protection and work activity:

Work Activity	Level of Protection

SECTION 7.0
DESIGNATION OF WORK ZONES

This section of the Health & Safety Plan applies to excavation projects where contaminated soils are exposed and may release their contaminants to the air, or come in contact with field personnel. To minimize the migration of contaminant from the Site to uncontaminated areas, three work zones will be set up:

- Zone 1: Exclusion Zone
- Zone 2: Contamination Reduction Zone
- Zone 3: Support Zone

The Exclusion Zone is the area where contamination occurs or could occur. Initially, the Exclusion Zone should extend a distance of a few feet from the edge of intrusive activity unless conditions at the Site warrant either a larger or smaller distance as determined by the Project Manager.

The Support Zone is the area of the Site where significant exposure to contamination is not expected to occur during non-intrusive activities. The Support Zone is considered to be the "clean area" of the Site where RAdata personnel not in PPE can stand and observe.

Between the Exclusion Zone and Support Zone is the Contamination Reduction Zone, which provides a transition zone between the contaminated and clean areas of the Site. The Contamination Reduction Zone will be located directly outside of the Exclusion Zone. All personnel must decontaminate when leaving the Exclusion Zone. A Contamination Reduction Zone (decontamination area) will be established adjacent to each individual area of intrusive work.

SECTION 8.0

DECONTAMINATION PROCEDURES

Personnel who have been in contact with contaminated materials will decontaminate themselves in the following manner:

- Deposit contaminated equipment on plastic drop cloths.
- Stand in wash tub containing Alconox® and water, wash boots and outer gloves with long handled brush.
- Rinse boots and outer gloves with long handled brush in a wash tub containing clear water or use a sprayer to rinse off boots and gloves.
- Remove ankle and wrist tapes; place in disposal drum.
- Remove outer gloves and place in disposal drum.
- Remove Tyvek® or Saranex® suit and place in disposal drum.
- Remove respirator and place on table to be decontaminated.
- Remove inner gloves and place in disposal drum.
- Wash hands and face.

All tools or equipment which have been in contact with contaminated materials, must be decontaminated after leaving the Exclusion Zone. This decontamination is to be performed using a high pressure/hot water "steam type" cleaner or a spray/rinse decontamination sequence as described in Section 3.6, Respirator Maintenance, Fitting and Decontamination, as appropriate.

Contaminated liquids from the decontamination area and contaminated clothing should be disposed of in accordance with the specific site protocols.

SECTION 9.0
EMERGENCY RESPONSE PLAN

9.0 EMERGENCY RESPONSE

Emergencies addressed by this plan include:

- Fire;
- Chemical or Radioactive over-exposures; and,
- Physical injuries to site personnel.

The Health & Safety Officer and Project Manager must be notified as soon as possible of any on-site emergency or potential emergency including fire, explosive conditions or OSHA-recordable physical injury.

9.1 EMERGENCY RECOGNITION AND PREVENTION

9.1.1 Chemical and Radioactive Exposures

Work should always be performed in a manner that minimizes exposure to radioactive and chemical contaminants through skin or eye contact, inhalation or ingestion. Work practices to reduce the risk of chemical exposure include:

- PPE will be used by all field personnel covered by this HASP. A formal revision to the HASP must be made by the Health and Safety Officer to modify the PPE specifications.
- Keep hands away from face during work activities.
- Minimize all skin and eye contact with contaminants.

Early recognition of the signs and symptoms of chemical and/or radioactive exposures are essential for the prevention of serious chemical exposure incidents. Symptoms of exposure to the compounds present at the Site include the following: fatigue, weakness; eye, nose, and/or throat irritation; dizziness; nausea; vomiting; malaise; tremors; aggressive confusion; cyanosis (blue color to skin); anemia; and muscle spasms.

If a person experiences any of these symptoms, or recognizes any of them in a fellow worker, the person experiencing the symptoms will stop work immediately and report to the Project Manager. If the symptoms persist or affect performance in any way, the Project Manager will arrange for medical treatment. If the symptoms are serious, or affect several people, work activities in the exposure area will be discontinued until more is known about the cause(s). Incident reporting procedures as specified in Section 3.3 will be initiated.

9.2 EMERGENCY ALERTING PROCEDURES

The Project Manager will alert the appropriate work groups when an emergency occurs. The communication method(s) will be established by the Project Manager. The Project Manager and any isolated work group will carry radios if direct contact cannot be maintained. If direct contact cannot be maintained, an air horn or verbal signal will be used to signal personnel to stop work and assemble in the Contamination Reduction Zone. If evacuation of the Site is necessary, a pre-arranged signal from the air horn or verbal alert will be sounded.

9.3 EVACUATION PROCEDURES AND ROUTES

Evacuation from the Contamination Reduction Zone will proceed in an upwind direction from the emergency. If evacuation to the Support Zone does not provide sufficient protection from the emergency, personnel will be advised to evacuate the Site proper.

9.4 TELEPHONE NUMBERS FOR EMERGENCY SERVICES

Ensure that telephone numbers of local emergency services are provided and listed below:

<u>Emergency Service</u>	<u>Telephone Number</u>
Ambulance	<u>911</u>
Fire Department	<u>911</u>
Police Department	<u>(914) 737-8000</u>
Primary Hospital (Trauma Center)	
<i>Hudson Valley Hospital Center</i>	<u>(914) 737-9000</u>
<i>1980 Crompond Road, Cortlandt Manor, NY</i>	
Poison Control Center	<u>(800) 962-1253</u>
US EPA National Response Center	<u>(800) 424-8802</u>
NJ DEP Hotline	<u>(800) 927-6337</u>
NJ Department of Health	<u>(800) 367-6543</u>
Below Ground Utilities (State of NJ BPU)	<u>(800) 272-1000</u>

These telephone numbers must be verified by the Project Manager before the start of field work.
Ensure that the specific HASP contains a map and directions.

9.5 EMERGENCY RESPONSE PERSONNEL

The Project Manager will have the primary role in responding to all emergencies at each Site. The Project Manager, will be present at the Site during all work activities. If any emergency such as a fire, chemical exposure, or physical injury occurs, the Project Manager shall be notified immediately. The Project Manager will direct all site personnel in cases of emergency.

After an emergency has occurred at the Site, the causes and responses to that emergency shall be thoroughly investigated, reviewed and documented by the Project Manager; this documentation is to be submitted to the Health and Safety Officer within 48 hours of the incident.

9.6 DECONTAMINATION PROCEDURES DURING AN EMERGENCY

Decontamination of an injured or exposed worker or during a site emergency shall be performed only if decontamination does not interfere with essential treatment or evacuation.

If a worker has been injured or exposed and decontamination can be done: Wash, rinse, and/or cut off protective clothing and equipment.

If a worker has been injured or exposed and cannot be decontaminated:

- Wrap the victim in blankets, plastic or rubber to reduce contamination of other personnel;
- Alert emergency and off-site medical personnel to potential contamination; and,
- Have the Project Manager or other personnel familiar with the incident and contaminants at the Site accompany the victim to the hospital. If possible, send a copy of the appropriate MSDS(s) with the victim.

9.7 EMERGENCY MEDICAL TREATMENT AND FIRST AID PROCEDURES

Emergency medical treatment or First Aid may be administered at the Site by the PROJECT MANAGER or other personnel who have been certified in First Aid.

General emergency medical and First Aid procedures are as follows:

- Remove the injured or exposed person(s) from immediate danger.
- Render First Aid as needed; decontaminate affected personnel, if necessary.
- Call an ambulance for transport to local hospital immediately. This procedure shall be followed even if there is no apparent serious injury.
- Evacuate other personnel at the Site to safe places until the Project Manager determines that it is safe for work to resume.

- Report the accident to the Health and Safety Officer immediately.

9.8 DIRECTIONS TO THE HOSPITAL FROM SITE

The route and/or directions to the hospital from the Site must be included with each specific Project HASP. List as a separate attachment.

The directions to the hospital from the Site must be verified by the Project Manager prior to the start of field work. List as a separate attachment.

SECTION 10.0
PERSONNEL ASSIGNMENTS

I have reviewed the Health and Safety Plan for Kurtsam Realty, 20 Welcher Ave, Peekskill, NY. I have read the HASP, understand it, and agree to comply with all of its provisions. I understand that I could be prohibited from working on the project for violating any of the safety requirements specified in the Health and Safety Plan.

_____ Name	_____ Company
_____ Signature	_____ Date
_____ Name	_____ Company
_____ Signature	_____ Date
_____ Name	_____ Company
_____ Signature	_____ Date
_____ Name	_____ Company
_____ Signature	_____ Date
_____ Name	_____ Company
_____ Signature	_____ Date

SECTION 11.0
HEALTH AND SAFETY PLAN APPROVAL

NJDEP INDOOR AIR SCREENING LEVEL

Attachment A

Contaminant Of Concern	CAS #	OSHA PEL (TWA)	IDLH	Flam-mable?	Carcin-ogen?	Residential Health-based Values (ppbv)	Nonresidential Health-based Values (ppbv)
Acetone	67-64-1	1000	2500	Y	N	1400	1900
Benzene	71-43-2	1 ppm	500 ppm	Y	Y	0.07	0.2
Bromodichloro-methane	75-27-4	-		N	Y	0.02	0.03
Bromoethene (vinyl bromide)	593-60-2	-	-	Y	Y	0.01	0.03
Bromoform	75-25-2	0.5	850	N	Y	.2	0.4
Bromomethane (methyl bromide)	74-83-9	C20	250	Y	N	1	2
1,3-Butadiene (vinyl ethylene)	106-99-0	1	2000	Y	Y	0.03	0.06
2-Butanone (MEK)	78-93-3	200	3000	Y	N	1700	2400
Carbon disulfide	75-15-0	20	500	Y	N	230	330
Carbon tetrachloride	56-23-5	10	200	N	Y	0.02	0.04
Chlorobenzene	108-90-7	75	1000	Y	N	11	16
Chloroethane (ethyl chloride)	75-00-3	1000	3800	Y	Y	0.8	2
Chloroform	67-66-3	C50	500	N	Y	0.02	0.04
Chloromethane (methyl chloride)	74-87-3	100	2000	Y	N	46	64
3-Chloropropene (allyl chloride)	107-18-6	.2	20	Y	Y	0.1	0.2

2-Chlorotoluene (o-chlorotoluene)	95-49-8	-	-	Y	N	14	20
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Contaminant Of Concern	CAS #	OSHA PEL (TWA)	IDLH	Flammable?	Carcinogen?	Residential Health-based Values (ppbv)	Nonresidential Health-based Values (ppbv)
Cyclohexane	110-82-7	300	1300	Y	N	1800	2500
Dibromochloromethane	124-48-1	-			Y	0.009	0.02
1,2-Dibromoethane (ethylene dibromide)	106-93-4	20	100	N	Y	0.0004	0.0009
1,2-Dichlorobenzene (o)	95-50-1	50	200	N	N	24	34
1,3-Dichlorobenzene (m)	541-73-1	-		N	N	2	3
1,4-Dichlorobenzene (p)	106-46-7	75	150	N	Y	0.05	0.1
Dichlorodifluoromethane (Freon 12)	75-71-8	1000	15000	N	N	37	52
1,1-Dichloroethane	75-34-3	100	3000	Y	N	130	180
1,2-Dichloroethane	107-06-2	50	50	Y	Y	0.02	0.04
1,1-Dichloroethene	75-35-4	-	-	Y	N	55	77
1,2-Dichloroethene (trans)	540-59-0	200	1000	Y	N	18	26
1,2-Dichloroethene (total)	156-59-2	-			N	8	12
1,2-Dichloropropane	78-87-5	75	400	Y	Y	0.02	0.04
1,3-Dichloropropene (total)	542-75-6	-	-	Y	Y	0.1	0.3
Ethylbenzene	100-41-4	100	800	Y	N	240	340
Hexachlorobutadiene	87-68-3	-	-	N	Y	0.008	0.02

Contaminant Of Concern	CAS #	OSHA PEL (TWA)	IDLH	Flammable?	Carcinogen?	Residential Health-based Values (ppbv)	Nonresidential Health-based Values (ppbv)
n-Hexane	110-54-3	500	1100	Y	N	210	290
Methylene chloride (dichloromethane)	75-09-2	25	2300	N	Y	1	2
4-Methyl-2-pentanone (MIBK)	108-10-1	100	500	Y	N	770	1100
MTBE (methyl t-butyl ether)	1634-04-4	50		Y	Y	0.4	1
Styrene	100-42-5	100	700	Y	N	250	340
t-Butyl alcohol (TBA)	75-65-0	100	1600	Y	N	22	30
1,1,2,2-Tetrachloroethane	79-34-5	5	100	N	Y	0.005	0.01
Tetrachloroethylene (PCE)	127-18-4	100	150	N	Y	0.05	0.1
Toluene	108-88-3	200	500	Y	N	1400	1900
1,2,4-Trichlorobenzene	120-82-1	-	-	N	N	5	7
1,1,1-Trichloroethane	71-55-6	350	700	N	N	190	260
1,1,2-Trichloroethane	79-00-5	10	100	N	Y	0.02	0.05
Trichloroethylene (TCE)	79-01-6	100	1000	N	Y	0.003	0.007
Trichlorofluoromethane (Freon 11)	75-69-4	1000	2000	N	N	130	180
1,1,2-Trichloro-1,1,2-trifluoroethane (Freon TF)	76-13-1	1000	2000	N	N	4100	5700
Vinyl chloride	75-01-4	1	-	Y	Y	0.03	0.4
Xylenes (total)	-	100	900	Y	N	25	35

SECTION 10.0
PERSONNEL ASSIGNMENTS

I have reviewed the Health and Safety Plan for Kurtsam Realty, 20 Welcher Ave, Peekskill, NY. I have read the HASP, understand it, and agree to comply with all of its provisions. I understand that I could be prohibited from working on the project for violating any of the safety requirements specified in the Health and Safety Plan.

John Cowell
Name
[Signature]
Signature

R Adatu, Inc
Company
10/19/10
Date

Derek Gompertz
Name
Derek Gompertz
Signature

Ra data inc.
Company
10/19/10
Date

Niko Kolyvas
Name
NK
Signature

Conte Electric Inc.
Company
10/20/10
Date

Luis Tepan
Name
[Signature]
Signature

Conte Electric Inc.
Company
10/20/10
Date

DOUGLAS HOWELL
Name
[Signature]
Signature

CONTE ELECTRIC INC
Company
10/20/10
Date

ATTACHMENT

7



RAdata, Inc.

27 Ironia Road, Unit 2
Flanders, New Jersey 07836
973-927-7303 973-927-4980 fax
1-800-447-2366

OPERATIONS AND MAINTENANCE SCHEDULE FOR THE ACTIVE SOIL DEPRESSURIZATION SYSTEMS

The blower units used in the active soil vapor depressurization systems are maintenance free and require no attention until the U-Tube manometers indicate the fan unit has failed.

30 DAY SERVICE: RAdata, Inc. recommends that the magnehelic gauges be observed and checked for proper blower functions every 30 days to ensure the proper function of the fan units.

Refer to As Built Drawings provided by RAdata, Inc. for systems location.

YEARLY SERVICE: It is recommended that the active soil depressurization systems be serviced on a yearly basis. That work will consist of:

- Removing and cleaning fan, note fans condition
- Adjust worm drive
- Check pipe clamps for breakage
- Check for moisture in pipe and make corrective adjustments if necessary
- Re-caulk all floor penetrations where accessible
- Check magnehelic manometers. Replace if necessary
- Register vacuum measurements
- Check electrical connections
- Measurement sub-floor communication
- Add system labeling if necessary
- Check all fire barriers
- Check for moisture under floor

Please contact our office for additional information regarding service on the active soil depressurization systems.

ATTACHMENT

8



27 Ironia Road, Unit 2
Flanders, New Jersey 07836
973-927-7303
973-927-4980 Fax

Proposal

Kurtsam Realty
Box 383 Quaker Ridge Road
Croton-On-Hudson, NY 10520

Attention: Fred Schwalb
973-584-7777x119 Bell Env.
DKeane@bellenvironmental.com

7/8/2010
No: 17844

Job Location: Go No Sen Karate Dojo
20 Welcher Avenue
Peekskill, NY 10566

County: Westchester

Job Description

In October of 2006 the New York State Department of Environmental Conservation (N.Y.S.D.E.C.) in consultation with the New York State Department of Health (N.Y.S.D.O.H) established a Guidance of Evaluating Soil Vapor Intrusion in the State of New York. The objective of the remedial techniques stated in that document is to eliminate the pathway between the source (contaminated ground water or subsurface soils) and the building occupants. That document represents Active Sub Slab Depressurization Systems (ASDS) to be the most effective application for this purpose. The required system design, installation and evaluation guidance are drawn from United States Environmental Protection Agency (U.S.E.P.A.) radon remediation publications. In the N.Y.S.D.O.H document it is recommended that a Environmental Professional, such as a Licensed Radon Mitigation Business, be used for this type of work. The goal of this type of installation is to achieve a sub slab vacuum measured at 1 Pascal or 0.004 inches of water thus reducing the potential for inhalation of vapors migrating from the soil through the building slab.

****SYSTEM CLASSIFICATION:** It is stated in the N.Y.S.D.O.H. Guidance that this type of installation be considered temporary. Guidance recommendations are to remove the system when either the remediation of the underlying contaminated soil or water is complete, or the vapor intrusion no longer exceeds acceptable standards. **THE VENTING SYSTEM OUTLINED IN THIS PROPOSAL, IF CONSIDERED A PERMANENT ADDITION TO THIS BUILDING AND WILL REQUIRE YEARLY SERVICE, AND INDOOR AIR MONITORING SHOULD BE IMPLEMENTED.** Submission of an annual certification to the State may be required.

****SYSTEM SPECIFICATIONS:** The number of venting systems suggested for this portion of the building is a total of three (3). The facility is a 5,100 square foot one story masonry building with a finished basement area. The basement is partitioned into multiple use rooms. Various radon remediation publications recommend installing one ventilation system for each 1,500 square feet of foundation area.

Install three (3) Active Soil Depressurization Systems (ASDS) to address the VOC contamination below the concrete basement slab consisting of the following actions:

- 1). Drill four inch (4") holes through the basement concrete slab. Two (2) slab penetrations will be installed along the interior perimeter of the building foundation and one (1) slab penetration will be installed in a central closet area. These holes will be piped with three or four inch (3"/4") Schedule 40 PVC. Piping shall be fastened to the wall or concrete deck using industry standard metal straps and hangers. Supports for the ASDS shall be six feet (6') on horizontal runs and every eight feet (8') on runs that do not penetrate floors, ceilings or roof. A sample port and vacuum gauge shall be installed for each system. Systems will be clearly labeled to identify their purpose.
- 2). Extend three (3) manifolds to the rear of the building. Extend vent pipes vertical to a termination point no less than 12" above the roofline. Exterior vent pipes shall be anchored to brick wall with pipe supports every eight feet (8'). Vent points will conform with all venting specifications provided by The N.Y.S.D.O.H.
- 3). Exhaust fans will be Fantech, Dynavac or Festa blowers (one year warranty). Fans will be mounted at rear of building about 10' above grade. Fan units will be hard wired by a New York State Licensed Electrician with an on/off switch provided for each fan. Magnehelic gauges and audio alarms will be placed on all systems to alert occupants if system(s) fan(s) have stopped working. Monitoring devices shall be placed in plain view of employees and/or management. Audio alarms devices will be hard wired by a New York State Licensed Electrician on separate breakers to prevent accidental disconnect. Electrical service for fans and alarms units is

ESTIMATED at \$1,595.00. Cost over runs will be documented and passed along to the CLIENT with a plus 20% cost adjustment

- 4.) Upon completion of the installation of the ASDS, Radata, Inc. shall provide an Operations and Maintenance Manual and review systems installation and maintenance requirements with the property owner or representative:
- The systems operation, including equipment manuals and specifications for mechanical and electrical components. RAdata, Inc. will provide contact information including name, telephone number, and e-mail address to the property owner for future contact.
 - How the warning system functions and what procedures are to be followed if it is activated.
 - All guarantees or warranties will be transferred to the property owner as well as manuals or equipment documents.

SYSTEMS INSTALLED PURSUANT TO SPECIFICATIONS OF ASTM 2121 - 03

Air Discharge Permit requirements (if applicable), as well as the retesting of contaminants in the exhaust stream, will be the responsibility of Bell Environmental. Sampling at six months and each year thereafter will be the responsibility of Bell Environmental as per N.Y.S.D.O.H requirements. This will continue to demonstrate that Air Discharge Permit Requirements are complied with unless their standards are changed in the future. After the installation is complete it will be the responsibility of the client to sample and maintain required measurements for all aspects associated with indoor and exhaust vapor limits in the systems, and the occupied space, as per N.Y.S.D.O.H. requirements.

****CONFIRMATORY TESTING:** Pressure field extension testing will be completed to qualify the extent of the sub-floor vacuum. Backdraft conditions will also be evaluated for the boiler and other combustion equipment.

****SOIL DISPOSAL:** The removal and disposal of all soil and concrete removed from under the floor during the installation of the described systems will be the responsibility of RAdata, Inc. Disposal will be coordinated with Bell Environmental. A disposal manifest will be a part of the final work product. RAdata will place soils and contaminated building debris, as well as, but not limited to, work coveralls and gloves in appropriate containers for removal. Removal and disposal of the drum from the job site will be completed by Clean Ventures, 201 South First St, Elizabeth, NJ. or another approved vendor. ESTIMATED DISPOSAL COST IS \$1,350.00. Cost over runs will be documented and passed along to the CLIENT with a plus 20% cost adjustment.

****DRAWINGS:** An "As Built" final plan drawing signed by a N.E.H.A. Radon Mitigation Specialist will be supplied with final work documents. For permit purposes as required by the local municipality, initial drawings for the installation of a Commercial Grade Radon Exhaust System will be supplied by RAdata, Inc. and signed by a N.E.H.A. Radon Mitigation Specialist. The need for the signature of a New York Licensed Architect or Engineer, if required by the town, would be an additional cost.

****REQUIRED VACUUM:** The outlined ASDS goal will be to create a measurable vacuum in the order of 1 Pascal or -0.004 inches of water column in all areas under the slab. This will be measured by RAdata, Inc. with the use of a micro-monometer and the results will be reported to the Client.

****ONGOING MONITORING & MAINTENANCE:** In ASDS Guidance for Evaluating Soil Vapor Intrusion in the State of New York (October 2006) must be referred to. This document is a guidance, not a regulation, rule or requirement. The client is accountable for the ongoing system verification sampling, monitoring and maintenance requirements.

****VERIFICATION PROCEDURES:** Bell Environmental will conduct exhaust stream VOC measurements to support the lack of the need for an air discharge permit at the time of the installation. Confirmatory indoor air sampling should be conducted by the client two to four weeks after systems is operational to verify the effectiveness of the system and the results should be below the N.Y.S.D.O.H. acceptable limits. If these tests are not conducted between November through March, a second round in that time frame is required unless the reduction is an order of magnitude or greater. If the pressure gauge installed on the systems indicate that the remedial system is not operating efficiently, the system should be repaired. An inspection should be conducted by RAdata, Inc. semi-annually to determine if the system is operating properly. After the first year a reduced inspection frequency may be appropriate and changed to once a year.

****WORKER HEALTH & SAFETY PLAN:** RADATA, INC. will supply to the client a Worker Health and Safety Plan appropriate for this project.

****WARRANTY:** RAdata, Inc. assumes no responsibility and/or liability for the success or failure of this treatment system for the removal of vapors other than radon gas. Where RAdata, Inc. will demonstrate system performance and achieved sub floor vacuum there is no warranty, either expressed or implied, as the reduction of any vapors other than radon gas impacting the safety and

habitability of the treated spaces. Any testing and/or additional filtration of other vapors in the building or filtration of the air stream exiting the systems remains the responsibility of the client. RAdata, Inc. shall be held harmless from any and all aspects of measurable gas concentrations or indoor air quality issues other than radon gas as set forth by our standard warranty. As the Subsurface Depressurization Systems move air from the soil beneath the concrete floor, the guidance of the U.S.E.P.A. and the represent findings that additional soil gases should be included in the exhaust stream. The outlined soil vapor venting system will create a measurable induced vacuum in the order of 1 Pascal or 0.004 inches of water column in all areas under the slab. This will be measured by RAdata, Inc. with the use of a micro-monometer.

WARRANTY RESTRICTIONS: Sub-floor material must be porous and free of standing water. If conditions are not appropriate for proper airflow, additional work may be necessary at an additional cost.

Subtotal: \$37,975.00

Notes:

- 1) All work areas must be made accessible for service crew prior to installation or there will be an additional charge of \$125 per hour (per man) added for the time it takes our staff to access work area properly.
- 2) Prices subject to change after 60 days.

TOTAL JOB COST: \$37,975.00

GUARANTEE: NA

WARRANTY RESTRICTIONS: NA

All material is guaranteed to be as specified. All work will be completed in a professional manner according to standard practices. Any alteration or deviation from above specifications involving extra costs will be executed only upon written orders, and will become an extra charge over and above the estimate. All agreements contingent upon strikes, accidents, or delays beyond our control. Owner to carry fire, tornado, and other necessary insurance. Our workers are fully covered by Workman's Compensation insurance.

Payment Terms: Net 30 days

The above, specifications, and conditions are satisfactory and are hereby accepted. You are authorized to do the work as specified. Payment will be made as outlined above.

Acceptance of Proposal: *Kurtz and Realty Corp*

System Proposed/Designed by:

David Grammer, Mitigation
Specialist



by: [Signature] 8/30/10
Customer Signature Date

ATTACHMENT

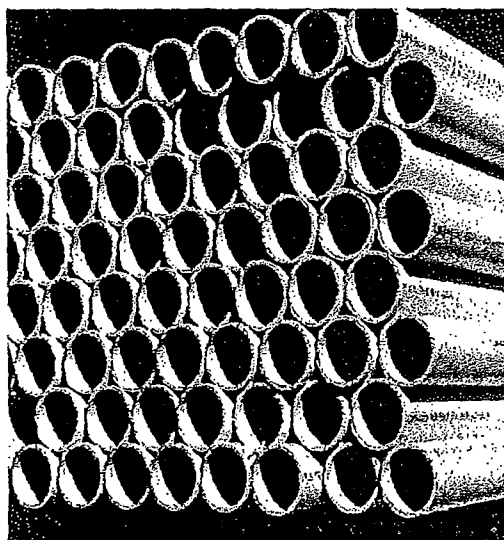
9



North American Pipe Corporation

www.northamericanpipe.com

Product Description:



ASTM D1785/D2665 Schedule 40/DWV Dual Rated Pipe

North American Pipe's ASTM D1785 Schedule 40 Dual Rated (both Pressure and DWV rating) product line is manufactured to meet the needs of a broad range of industrial, commercial and residential piping systems. With top quality raw materials and modern processing technology, North American Pipe's ASTM D1785 Schedule 40 Dual Rated pipe meets all industry standards in addition to our own rigorous quality control. North American Pipe's Schedule 40 Dual Rated product line carries both a pressure and DWV rating to give the designer, installer and end user the flexibility of one product for two distinct applications. North American Pipe produces a broad range of sizes in both plain end and belled end configurations in our Schedule 40 product line. Whether specifying or installing our pipe you can be assured that North American Pipe will provide the size and quality you need.

This product is made in accordance with the following specifications:

ASTM D1784
ANSI/NSC 14

ASTM D1785
ANSI/NSC S1

ASTM D6870
ASTM D6855

Short Form Specification for North American Pipe Corporation ASTM D1785/D2665 Schedule 40/DWV Dual Rated Pipe

Schedule 40 water distribution pipe shall be made in accordance with ASTM D1785 and ASTM D6855 from a PVC compound conforming to a cell classification of 10454 as defined by ASTM D1784. Belled end of solvent weld pipe shall meet the requirements of ASTM D6870 when installed in accordance with ASTM D6855. Solvent weld belled end pipe shall be tested and approved for contact with potable water in accordance with ANSI/NSC S1 and NSC 14 and be factory Mutual approved. Pipe shall be dual marked for use in water distribution and drain, waste, and vent applications.



Rev: 07/2006

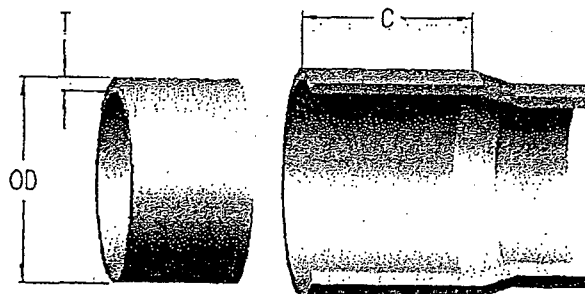
2801 Post Oak Blvd. | Suite 600 | Houston | TX | 77056
Phone: 713-840-7473 Toll Free 800-999-7473 Fax: 713-552-0087



North American Pipe Corporation

www.northamericanpipe.com

ASTM D1785/D2665 Schedule 40/DWV Dual Rated Pipe



NOMINAL PIPE SIZE	OUTSIDE DIA. - 120 (OD)	**APPROX BELL DEPTH (C)	(T)	PRESSURE RATING (psi)
1/2"	.840	1.75	.109	S00
3/4"	1.050	Q50	.11P	480
1"	1.P15	Q50	.1PP	450
1 1/4"	1.SS0	Q50	.140	P70
1 1/2"	1.900	Q50	.145	PP0
2"	QP75	P.O5	.154	Q80
2 1/2"	Q875	P.50	.00P	P00
3"	P.500	4.O5	.01S	Q80
4"	4.500	5.50	.0P7	000
5"	5.5SP	S.00	.058	190
6"	S.S05	7.00	.080	180
8"	8.S05	7.50	.P00	1S0
10"	10.750	8.50	.PS5	140
12"	1Q750	10.00	.40S	1P0
14"	14.000	10.00	.4P7	1P0
16"	1S.000	10.00	.500	1P0

Note: These dimensions are for estimating purposes only ** Nominal depth, depth will vary by pressure class

Rev: 07/2006

2801 Post Oak Blvd. | Suite 600 | Houston | TX | 77056
Phone: 713-840-7473 Toll Free 800-999-7473 Fax: 713-552-0087



North American
Pipe Corporation

PVC PIPE Page 1 of 5

MATERIAL SAFETY DATA SHEET

Effective Date: March 8, 2007

1. **PRODUCT AND
COMPANY
IDENTIFICATION**

Trade Name: Polyvinyl Chloride Pipe
Chemical Name: Mixture
Synonyms: Not applicable
Chemical Family: Mixture of Polyvinyl Chloride Homopolymer
Formula: Mixture, see below.

COMPANY ADDRESS: North American Pipe Corporation
2801 Post Oak Blvd.
Houston, TX 77056

EMERGENCY CONTACT: CALL 1-217-324-6515
THESE NUMBERS ARE AVAILABLE DAYS, NIGHTS, WEEKENDS, AND HOLIDAYS, EXCEPT ON
DECEMBER 24 TO 26.

2. **COMPOSITION/INFORMATION ON INGREDIENTS**

Component	CAS Number	% By Weight	OSHA PEL-TWA mg/m ³	ACGIH TLV-TWA mg/m ³
Polyvinyl chloride resin (chloroethene homopolymer), treated as nuisance particulate	9002-86-2	95	5 (respirable fraction) 15 (total dust)	3 (respirable particulate) 10 (total particulate)
Calcium carbonate	1317-65-3	3-4	5 (respirable fraction) 15 (total dust)	10 (total particulate)
Waxes	NE	1-2	NE	2 (as Paraffin Wax Fume)
Titanium dioxide	13463-67-7	<1	15 (total dust)	10 (total particulate)

NE = Not Established

3. **HAZARDS IDENTIFICATION**

This product is non-hazardous under Hazard Communication Standard 29 CFR 1910.1200.

HAZARD RATINGS

Degree of hazard (0 = low, 4 = extreme)

National Fire Protection
Association

Health: 1 Flammability: 1 Reactivity: 0 Specific Hazard: None

Hazardous Materials
Identification System

Health: 1 Flammability: 1 Reactivity: 0

This Material Safety Data Sheet is offered solely for your information, consideration, and investigation. North American Pipe Corporation provides no warranties, either express or implied, and assumes no responsibility for the accuracy or completeness of the data contained herein.



MATERIAL SAFETY DATA SHEET

4. FIRST AID MEASURES

- EYE CONTACT:** Immediately flush with large amounts of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Consult a physician immediately.
- SKIN CONTACT:** Cool skin rapidly if contacted with molten polymer. Obtain medical attention for thermal burns or skin irritation.
- INHALATION:** The product is not expected to present an inhalation hazard, unless mechanically chipped or pulverized or if melted during fire. If dust or fumes are inhaled, remove to fresh air.
- SWALLOWING:** No adverse health effects expected from ingestion.

5. FIRE FIGHTING MEASURES

- Flash Point:** Not applicable
Lower Explosive Limit: Not applicable
Upper Explosive Limit: Not applicable
Autoignition Temp: 849°F (470°C)
- EXTINGUISHING MEDIA:** Use water spray, dry chemical, or foam.
- SPECIAL FIRE FIGHTING PROCEDURES:** Use NIOSH/MSHA approved self-contained breathing apparatus and full protective clothing if involved in fire.
- UNUSUAL FIRE AND EXPLOSION HAZARDS:** PVC homopolymers are self-extinguishing plastic materials. They will burn in the presence of other materials that support combustion and will generate hydrogen chloride, phosgene, benzene, carbon monoxide, carbon dioxide, aromatic and aliphatic hydrocarbons, and other gases.

6. STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

Collect scrap for reprocessing, or for landfill in compliance with local regulations.

7. HANDLING/STORAGE

Use any methods that keep dust to a minimum. General storage procedures are acceptable.

8. EXPOSURE CONTROLS/ PERSONAL PROTECTION

- EYE PROTECTION:** Safety glasses are required if there is a possibility of getting dust particles in eyes. Have eye wash equipment nearby.
- SKIN PROTECTION:** None required.

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MATERIAL SAFETY DATA SHEET

8. EXPOSURE CONTROLS/ PERSONAL PROTECTION (C2 17'D)

VENTILATION: Local exhaust ventilation is recommended to control airborne dust.

RESPIRATORY PROTECTION: If dust or fumes exist, use a NIOSH/MSHA approved respirator. At unknown concentrations and for fire fighting, use self-contained breathing apparatus (SCBA). Always use respirators in accordance with instructions.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical Form:	<u>Solid</u>
Boiling Point:	<u>Not available</u>
Heat Deflection Temperature:	<u>168°F (76°C) "</u>
Vapor Density:	<u>Not applicable</u>
Vapor Pressure (mm Hg):	<u>Not applicable</u>
Evaporation Rate:	<u>Not applicable</u>
% Volatile by Volume:	<u>Not applicable</u>
Density:	<u>Not determined</u>
Specific Gravity:	<u>1.42</u>
Solubility in Water (20 °C):	<u>Insoluble</u>
Melting Point:	<u>Not available</u>
Viscosity:	<u>Not applicable</u>
Odor:	<u>Plastic, resin odor</u>
Appearance:	<u>Blue, Green, Purple, Light Gray, or White plastic pipe</u>
pH:	<u>Not applicable</u>

10. STABILITY/REACTIVITY

Stability: Stable under normal storage conditions.

CONDITIONS TO AVOID: None known.

INCOMPATIBLE MATERIALS: None known.

HAZARDOUS DECOMPOSITION PRODUCTS: Hydrogen chloride, benzene, carbon monoxide, carbon dioxide, aromatic and aliphatic hydrocarbons, and other gases could be released in fire.

POLYMERIZATION: Hazardous polymerization not expected.

11. TOXICOLOGICAL INFORMATION

No toxicological data were found for this product. The effects reported are those anticipated based on the components of this product.

**POTENTIAL ROUTES
OF EXPOSURE:**

Inhalation of dust is the most likely route of exposure to this product.

**SIGNS, SYMPTOMS, AND
TOXIC EFFECTS OF
OVEREXPOSURE:**

Exposure to high concentrations of dust of this product will cause irritation of the respiratory tract with cough, difficulty breathing, dryness of the throat, or eye irritation.

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MATERIAL SAFETY DATA SHEET

11. TOXICOLOGICAL INFORMATION (C2 17'D)

ANIMAL TOXICITY DATA:

Component	Inhalation LC ₅₀	Dermal LD ₅₀ (mg/kg)	Oral LD ₅₀ (mg/kg)
PVC homopolymer	No data found.	No data found.	No data found.
Calcium carbonate	No data found.	No data found.	No data found.
Titanium dioxide	No data found.	No data found.	No data found.

REPRODUCTIVE EFFECTS: No data were found regarding reproductive effects in humans or animals for any component of this product.

MUTAGENICITY DATA: No mutagenicity data were found for any component of this product.

DESIGNATION AS POTENTIAL IARC designates PVC homopolymer and titanium dioxide as Group 3,
CARCINOGEN: "nRW
classifiable as to WFDU In Rg H IFLW In KXP DnV."

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: No data were found regarding this issue.

INTERACTIONS WITH CHEMICALS THAT ENHANCE TOXICITY: No data were found regarding this issue.

12. ECOLOGICAL INFORMATION

No data were found regarding adverse ecological impacts of this product.

13. DISPOSAL CONSIDERATIONS

Disposal should conform to federal, state, and local regulations. If hazardous according to 40 CFR part 261.31 or 32, or possesses characteristics of 40 CFR 261 Subpart C, dispose in a facility meeting the requirements of 40 CFR 264 or 265. If non-hazardous, dispose in a facility meeting the requirements of 40 CFR 257. Before attempting cleanup, refer to hazard information and personal protection information in other sections of this MSDS. If waste is determined to be hazardous, use licensed hazardous waste transporter and disposal facility.

RCRA Status of Unused Material: If discarded in unaltered form, should be tested in accordance to 40CFR 261 Subpart C and disposed as specified above.

14. TRANSPORTATION INFORMATION

U.S.D.O.T. SHIPPING NAME, ID NO, HAZARD CLASS: Not Regulated (also, Canada via rail and truck.)

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MATERIAL SAFETY DATA SHEET

15. REGULATORY INFORMATION

SARA 313 LISTING: This product does not contain any substance subject to the reporting requirements of section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 and of 40 CFR 372.

SARA 312 HAZARD CLASS: Not applicable.

SARA EXTREMELY
HAZARDOUS SUBSTANCES: Not applicable.

EPA HAZARDOUS SUBSTANCES
LIST: (40 CFR 302.4): Not hazardous.

CA PROPOSITION 65: This product does not contain any substance listed in the State of California Safe Drinking Water and Toxic Enforcement Act of 1986, as updated (February 23, 2001).

PENN. RIGHT-TO-KNOW: All required components are identified.

N.g. RIGHT-TO-KNOW: All required components are identified.

MASS. RIGHT-TO-KNOW: All required components are identified.

TSCA INVENTORY STATUS: All components of this product are listed on the TSCA Inventory.

CANADIAN WHMIS CLASS: Not applicable.

16. OTHER INFORMATION

REVISIONS: Entire MSDS reviewed March 8, 2007.

PREPARED BY: Tetra Tech EM, Inc., using standard references and information provided and directed by North American Pipe Corporation.

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PRODUCT DATA SHEET

December 2005

Biostop® Pipe Collar

Classified Through-Penetration FireStop System Numbers

CAJ2135, CAJ2152, CAJ2154, CAJ2156, CAJ5106, CAJ2181, CAJ2177, CAJ2198, CAJ2200, CAJ2266, WL2109, WL2120, WL2118, WL2135, WL2136, WL2133, WL2208, WL2256, WL3151, WJ2040, WJ3055, FC2059, FC2060, FC2061, FC2068, FC2166, FC8016, FC8018, FA2044



1. Product Description

Biostop® Pipe Collars are prefabricated for open and closed through-penetration firestop systems using 1 1/2" (38 mm) to 6" (152 mm) plastic pipe. An easy locking mechanism assures easy installation. The collar design greatly reduces the time and expense that is required to install competitive collars.

Biostop® Pipe Collar Features

- Saves on Labor Cost
- Easy Installation
- Economical
- No Measurement of Material Required
- Highly Intumescent
- Tested for PVC, CPVC, ABS and PVC/ABS Foam Core, FRPP

2. Material Properties

Asbestos Fillers	None
Solvents	None
Hazardous Ingredients	None

Activation of Intumescence:

Expansion Begins 375°F (190° C)
Expansion Greatest 575°(302° C)
to 1100°F (593° C)

3. Applications

Biostop® Pipe Collars are used to seal off plastic pipe both in closed and vented (DWV) conditions. Also for use on up to 6" (152 mm) diameter ABS (cellular core or solid core), FRPP, PVC and CPVC pipe. The collar may be used on up to 3 hour rated concrete floors and walls, up to 2 hour rated gypsum walls and up to 2 hour rated wood floors.

4. Installation Data

Biostop® Pipe Collars are prefilled and very easy to install.

- 1) Select the proper collar to fit the diameter of pipe used.
- 2) Making sure annular space is within the limits set by the tested conditions, attach collar around the pipe on the underside of the floor or to each side of a wall by firmly placing against the wall or

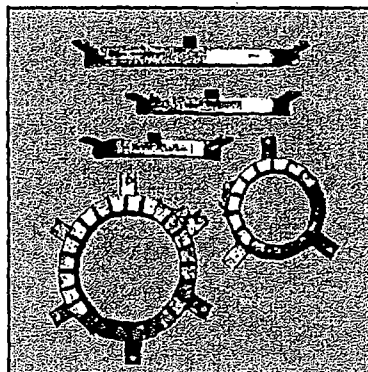
floor and securing interlocking tabs [1 1/2" (38 mm), 2" (51 mm), 3" (76 mm) and 4" (102 mm)] or fastening the buckle [6" (152 mm)].

- 3) If needed, mark and predrill wall or floor for required anchors. Properly secure the appropriate anchor into each of the anchoring tabs. In concrete, use 1/4" (6 mm) x 1 1/4" (32 mm) hex washer head type concrete anchors or appropriate steel expansion/wedge anchors. In gypsum, use 1/8" (3 mm) x 2" (51 mm) MOLLY type hollow wall anchors.
- 4) If an additional smoke seal is required, Biostop® 500+ may be applied within the annular space before the attachment of the collar.

5. Testing Data

Biostop® Pipe Collars are classified by Underwriters Laboratories as a Firestop Device. For specific test criteria, see the UL Fire Resistance Directory or call RectorSeal. Biostop® Pipe Collars were tested at a minimum .01 inches (2.5 Pa) of water positive pressure in accordance with UL 1479 (ASTM E814) test standards.

Complies to Required Environmental Exposure Testing of Accelerated Aging and High Humidity as per UL 1479 Fire Test of Through-Penetration Firestops.



IPS WELD-ON		MATERIAL SAFETY DATA SHEET		Date Revised: APR 2007 Supersedes: OCT 2004																												
Information on this form is furnished solely for the purpose of compliance with the Occupational Safety and Health Act and shall not be used for any other purpose. IPS Corporation urges the customers receiving this Material Safety Data Sheet to study it carefully to become aware of the hazards, if any, of the product involved. In the interest of safety, you should notify your employees, agents and contractors of the information on this sheet.																																
SECTION I																																
MANUFACTURER'S NAME IPS Corporation ADDRESS 17109 S. Main St., P.O. Box 379, Gardena, CA. 90248			Transportation Emergencies: CHEMTREC: (800) 424-9300 Medical Emergencies: 3 E COMPANY (24 Hour No.) (800) 451-8346 Business: (310) 898-3300																													
CHEMICAL NAME and FAMILY Solvent Cement for PVC Plastic Pipe Mixture of PVC Resin and Organic Solvents			TRADE NAME: WELD-ON HOT 'R COLD 727 Low VOC Cement for PVC Plastic Pipe FORMULA: Proprietary																													
SECTION II - HAZARDOUS INGREDIENTS																																
None of the ingredients below are listed as carcinogens by IARC, NTP or OSHA																																
	CAS#	APPROX %	ACGIH-TLV	ACGIH-STEL	OSHA-PEL	OSHA-STEL	DUPONT (A) AEL	(B) STEL																								
Polyvinyl Chloride Resin (PVC)	NON/HAZ		N/A		N/A																											
Tetrahydrofuran (THF)**	109-99-9	29 - 44	50 PPM	100 PPM	200 PPM	250 PPM	50 PPM	75 PPM																								
Methyl Ethyl Ketone (MEK)	78-93-3	4 - 15*	200 PPM	300 PPM	200 PPM	300 PPM																										
Cyclohexanone	108-94-1	8 - 17	20 PPM Skin		50 PPM																											
Acetone	67-64-1	1 - 11	500 PPM	750 PPM	750 PPM	1000 PPM																										
All of the constituents of Weld-On adhesive products are listed on the TSCA Inventory of chemical substances maintained by the US EPA, or are exempt from that listing.																																
(A) Dupont and BASF mfg's Acceptable Exposure Limit (AEL) for 8 hour and 12 hour TWA, (B) Dupont/BASF recommended STEL for 15 minute TWA.																																
**Information found in a report from the National Toxicology Program (NTP) on an inhalation study in rats and mice suggests that Tetrahydrofuran (THF) can cause tumors in animals. In the study the rats and mice were exposed to THF vapor levels up to 1800 PPM for two years (their lifetime), 6 hours/day, 5 days/week. Test results showed evidence of liver tumors in female mice and kidney tumors in male rats. No evidence of tumors was seen in female rats and male mice. There is no data linking Tetrahydrofuran exposure with cancer in humans.																																
BULK SHIPPING INFORMATION / CONTAINERS LARGER THAN ONE LITER			SPECIAL HAZARD DESIGNATIONS																													
DOT Shipping Name: Adhesive DOT Hazard Class: 3 Identification Number: UN 1133 Packaging Group: II Label Required: Flammable Liquid			<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th></th> <th>HMIS</th> <th>NFPA</th> <th>HAZARD RATING</th> </tr> <tr> <td>HEALTH:</td> <td>2</td> <td>2</td> <td>0 - MINIMAL</td> </tr> <tr> <td>FLAMMABILITY:</td> <td>3</td> <td>3</td> <td>1 - SLIGHT</td> </tr> <tr> <td>REACTIVITY:</td> <td>0</td> <td>1</td> <td>2 - MODERATE</td> </tr> <tr> <td>PROTECTIVE</td> <td></td> <td></td> <td>3 - SERIOUS</td> </tr> <tr> <td>EQUIPMENT:</td> <td>B - H</td> <td></td> <td>4 - SEVERE</td> </tr> </table>							HMIS	NFPA	HAZARD RATING	HEALTH:	2	2	0 - MINIMAL	FLAMMABILITY:	3	3	1 - SLIGHT	REACTIVITY:	0	1	2 - MODERATE	PROTECTIVE			3 - SERIOUS	EQUIPMENT:	B - H		4 - SEVERE
	HMIS	NFPA	HAZARD RATING																													
HEALTH:	2	2	0 - MINIMAL																													
FLAMMABILITY:	3	3	1 - SLIGHT																													
REACTIVITY:	0	1	2 - MODERATE																													
PROTECTIVE			3 - SERIOUS																													
EQUIPMENT:	B - H		4 - SEVERE																													
SHIPPING INFORMATION FOR CONTAINERS LESS THAN ONE LITER			B = Eye, Hand/Skin (for normal solvent-welding activities) H = Eye, Hand/Skin, Respiratory Protection and Impermeable Apron (splash/immersion risks)																													
DOT Shipping Name: Consumer Commodity DOT Hazard Class: ORM-D																																
SECTION III - PHYSICAL DATA																																
APPEARANCE Clear, medium syrupy liquid		ODOR Ethereal		BOILING POINT (*F/*C) 151°F (67°C) Based on first boiling component: THF																												
SPECIFIC GRAVITY @ 73°F ± 3.6° (23°C ± 2°) Typical 0.968 ± 0.040		VAPOR PRESSURE (mm Hg.) 143 mm Hg. based on first boiling component, THF @ 68°F (20°C)		PERCENT VOLATILE BY VOLUME (%) Approx: 80 - 90 %																												
VAPOR DENSITY (Air = 1) 2.49		EVAPORATION RATE (BUAC = 1) >1.0		SOLUBILITY IN WATER Solvent portion completely soluble in water. Resin portion separates out.																												
VOC STATEMENT: VOC as manufactured: 850 Grams/Liter (g/l). Maximum VOC emission when applied & tested per SCAQMD Rule 1168, Test Method 316A: 510 g/l																																
SECTION IV - FIRE AND EXPLOSION HAZARD DATA																																
FLASH POINT -4°F (-20°C) T.C.C. Based on THF			FLAMMABLE LIMITS (PERCENT BY VOLUME)			<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th>LEL</th> <th>UEL</th> </tr> <tr> <td>2</td> <td>11.8</td> </tr> </table>			LEL	UEL	2	11.8																				
LEL	UEL																															
2	11.8																															
FIRE EXTINGUISHING MEDIA Ansul "Purple K" potassium bicarbonate dry chemical, any appropriately sized ABC dry chemical, carbon dioxide or foam extinguisher can be used for small fires. Use of a water fog by trained personnel can extinguish small/large fires.																																
SPECIAL FIRE FIGHTING PROCEDURES Evacuate enclosed areas. Stay upwind. Close quarters or confined spaces require self-contained breathing apparatus, positive pressure hose masks or airline masks. Use of a water fog by trained personnel can extinguish small/large fires and avoid water flow or water streams/spray distributing burning material or contaminated water over a large area or into sewers or storm drains. Use water spray to cool containers, to flush spills from source of ignition and to disperse vapors.																																
UNUSUAL FIRE AND EXPLOSION HAZARDS Fire hazard because of low flash point and high volatility. Vapors are heavier than air and may travel to source(s) of ignition at or near ground or lower level(s) and flash back.																																

SECTION V - HEALTH HAZARD DATA

PRIMARY ROUTES
OF ENTRY:

☒ Inhalation ☒ Skin Contact ☐ Eye Contact ☐ Ingestion

EFFECT OF OVEREXPOSURE

ACUTE:

Inhalation: Severe overexposure may result in nausea, dizziness, headache. Can cause drowsiness, irritation of eyes and nasal passages.
Skin Contact: Skin irritant. Liquid contact may remove natural skin oils resulting in skin irritation. Dermatitis may occur with prolonged contact.
Skin Absorption: Prolonged or widespread exposure may result in the absorption of harmful amounts of material.
Eye Contact: Overexposure may result in severe eye injury with corneal or conjunctival inflammation on contact with the liquid. Vapors slightly uncomfortable.
Ingestion: Moderately toxic. May cause nausea, vomiting, diarrhea. May cause mental sluggishness.
CHRONIC: Symptoms of respiratory tract irritation and damage to respiratory epithellum were reported in rats exposed to 5000 ppm THF for 90 days. Elevation of SGPT suggests a disturbance in liver function. The NOEL was reported to be 200 ppm.

REPRODUCTIVE EFFECTS	TERATOGENICITY	MUTAGENICITY	EMBRYOTOXICITY	SENSITIZATION TO PRODUCT	SYNERGISTIC PRODUCTS
N. AP.	N. AP.	N. AP.	N. AP.	N. AP.	N. AV.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: Individuals with pre-existing diseases of the eyes, skin or respiratory system may have increased susceptibility to the toxicity of excessive exposures.

EMERGENCY AND FIRST AID PROCEDURES

Inhalation: If overcome by vapors, remove to fresh air and if breathing stopped, give artificial respiration. If breathing is difficult, give oxygen. Call physician.
Eye Contact: Flush eyes with plenty of water for 15 minutes and call a physician.
Skin Contact: Remove contaminated clothing and shoes. Wash skin with plenty of soap and water for at least 15 minutes. If irritation develops, get medical attention.
Ingestion: Give 1 or 2 glasses of water or milk. Do not induce vomiting. Call physician or poison control center immediately.

SECTION VI - REACTIVITY

STABILITY	UNSTABLE	STABLE	CONDITIONS TO AVOID
		☒	Keep away from heat, sparks, open flame and other sources of ignition.

INCOMPATIBILITY

(MATERIALS TO AVOID) Caustics, ammonia, inorganic acids, chlorinated compounds, strong oxidizers and isocyanates.

HAZARDOUS DECOMPOSITION PRODUCTS

When forced to burn, this product gives out carbon monoxide, carbon dioxide, hydrogen chloride and smoke.

HAZARDOUS	MAY OCCUR	CONDITIONS TO AVOID
POLYMERIZATION	☒	Keep away from heat, sparks, open flame and other sources of ignition.

SECTION VII - SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

Eliminate all ignition sources. Avoid breathing of vapors. Keep liquid out of eyes. Flush with large amount of water. Contain liquid with sand or earth. Absorb with sand or nonflammable absorbent material and transfer into steel drums for recovery or disposal. Prevent liquid from entering drains.

WASTE DISPOSAL METHOD

Follow local, State and Federal regulations. Consult disposal expert. Can be disposed of by incineration. Excessive quantities should not be permitted to enter drains. Empty containers should be air dried before disposing. Hazardous Waste Code (CA): 214.

SECTION VIII - SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type)

Atmospheric levels should be maintained below established exposure limits contained in Section II. If airborne concentrations exceed those limits, use of a NIOSH approved organic vapor cartridge respirator with full face-piece is recommended. The effectiveness of an air purifying respirator is limited. Use it only for a single short-term exposure. For emergency and other conditions where short-term exposure guidelines may be exceeded, use an approved positive pressure self-contained breathing apparatus.

VENTILATION

Use only with adequate ventilation. Do not use in close quarters or confined spaces. Open doors and/or windows to ensure airflow and air changes. Use local exhaust ventilation to remove airborne contaminants from employee breathing zone and to keep contaminants below levels listed in Section II. Use only explosion-proof ventilation equipment.

PROTECTIVE GLOVES PVA coated rubber gloves for frequent dipping/immersion. Use of latex/nitrile surgical gloves or solvent resistant barrier creme should provide adequate protection when normal solvent-cement welding practices and procedures are used for solvent welding of plastic sheet/plpe joints.

EYE PROTECTION Splashproof chemical goggles, face shield, safety glasses (spectacles) with brow guards & side shields, etc. as appropriate for exposure.

OTHER PROTECTIVE EQUIPMENT AND HYGIENIC PRACTICES

Impervious apron and a source of running water to flush or wash the eyes and skin in case of contact.

SECTION IX - SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

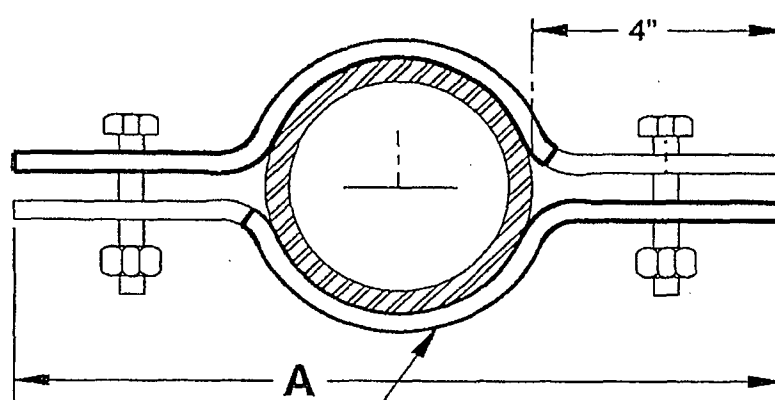
Store in the shade between 40°F - 110°F (5°C - 43.7°C). Keep away from heat, sparks, open flame and other sources of ignition. Avoid prolonged breathing of vapor. Use with adequate ventilation. Avoid contact with eyes, skin and clothing. Train employees on all special handling procedures before they work with this product.

OTHER PRECAUTIONS

Follow all precautionary information given on container label, product bulletins and our solvent cementing literature. All material handling equipment should be electrically grounded.

The information contained herein is based on data considered accurate. However, no warranty is expressed or implied regarding the accuracy of this data or the results to be obtained from the use thereof.

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VINYL COAT .05 THK

SIZE	A	STOCK	BOLT
1/2	9.00	1/8 X 1.00	5/16 X 1.25
3/4	9.40	1/8 X 1.00	5/16 X 1.25
1	9.50	1/8 X 1.00	5/16 X 1.25
1-1/4	10.00	1/8 X 1.00	5/16 X 1.25
1-1/2	10.50	5/32 X 1.00	5/16 X 1.25
2	11.00	5/32 X 1.00	3/8 X 1.50
2-1/2	11.50	1/4 X 1.00	3/8 X 1.50
3	11.50	1/4 X 1.00	3/8 X 1.50
4	13.00	1/4 X 1.00	7/16 X 1.50
5	14.00	1/4 X 1.25	1/2 X 2.00
6	15.00	1/4 X 1.50	1/2 X 2.00
8	18.50	3/8 X 1.50	5/8 X 2.50
10	21.00	3/8 X 2.00	5/8 X 2.50
12	23.00	1/2 X 2.00	5/8 X 2.50

UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES
TOLERANCES ARE:
FRACTIONS DECIMALS ANGLES
+/- 1/8 .XX +/- .03 .XX + 1
.XXX +/- .01

MATERIAL

CQ STEEL

CAD GENERATED DRAWING.
DO NOT MANUALLY UPDATE

APPROVALS	DATE
DRAWN EG	
CHECKED SB	

4/05

GREENFIELD MFG CO

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P/N PLASTIC RISER CLAMP

A FIG 107

REV.

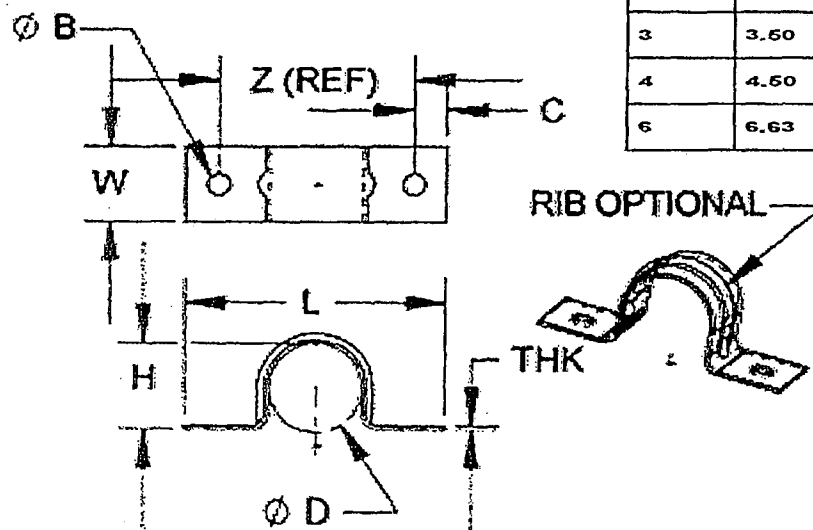
SCALE CAD FILE 107.SLDDRW

SHEET OF

DO NOT SCALE DRAWING



Size	D	H	THK	W	L	B	C	Z (ref)
Tol.	0.06	.03	US Gage	.12	.25	.032	.06	.06
	-0.02	-.06		-.03	-.12	-.016	-.03	-.06
3/8	0.69	0.68	20 Ga.	0.76	2.38	0.200	0.38	1.62
1/2	0.84	0.84	20 Ga.	0.76	2.62	0.200	0.38	1.80
3/4	1.05	1.05	19 Ga.	0.76	2.75	0.200	0.38	2.06
1	1.31	1.31	18 Ga.	1.00	3.40	0.281	0.38	2.62
1 1/4	1.66	1.66	16 Ga.	1.00	4.26	0.281	0.60	3.26
1 1/2	1.90	1.90	16 Ga.	1.00	4.20	0.281	0.60	3.44
2	2.38	2.38	14 Ga.	1.00	5.06	0.281	0.66	4.21
2 1/2	2.88	2.88	13 Ga.	1.00	6.31	0.340	0.75	4.88
3	3.50	3.50	13 Ga.	1.00	7.30	0.340	0.75	5.88
4	4.50	4.50	12 Ga.	1.00	8.38	0.340	0.76	7.12
6	6.63	6.60	12 Ga.	1.25	11.12	0.340	0.81	9.60



Greenfield Mfg Co Inc

920 Levick Street, Philadelphia PA. 19111-5498

Material
STEEL

GALVANIZED PIPE STRAP

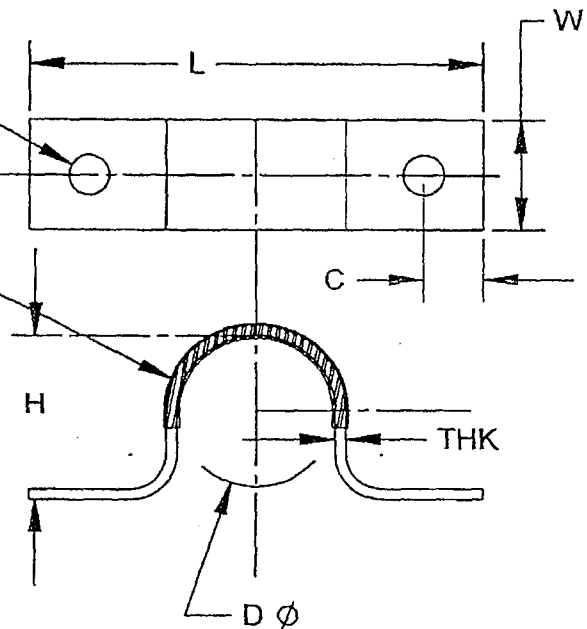
Finish
GALV.

FIG. 600

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THIS AREA
VINYL COAT
.05 THK (BLACK)

SIZE	D	H	Thk	W	L	B	C
+Tol	.06	.03	U S	.12	.25	.032	.06
-Tol	.02	.06	Gage	.03	.12	.015	.03
3/8	.69	.68	20 Ga	.75	2.38	.200	0.38
1/2	.84	.84	20 Ga	.75	2.62	.200	0.38
3/4	1.05	1.05	19 Ga	.75	2.75	.200	0.38
1	1.31	1.31	18 Ga	.75	3.40	.281	0.38
1-1/4	1.66	1.66	16 Ga	1.0	4.25	.281	0.50
1-1/2	1.90	1.90	14 Ga	1.0	4.20	.281	0.50
2	2.38	2.38	14 Ga	1.0	5.00	.281	0.66
2-1/2	2.88	2.88	13 Ga	1.0	6.31	.340	0.75
3	3.50	3.50	13 Ga	1.0	7.30	.340	0.75
4	4.50	4.50	12 Ga	1.0	8.50	.340	0.75



UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES
TOLERANCES ARE:
FRACTIONS DECIMALS ANGLES
+/- 1/8 XX +/- .03 .XX + 1
.XXX +/- .01

MATERIAL PRE GALVANIZED
SHEET STEEL

DO NOT SCALE DRAWING

CAO GENERATED DRAWING.
DO NOT MANUALLY UPDATE

APPROVALS DATE
DRAWN EG
CHECKED SB

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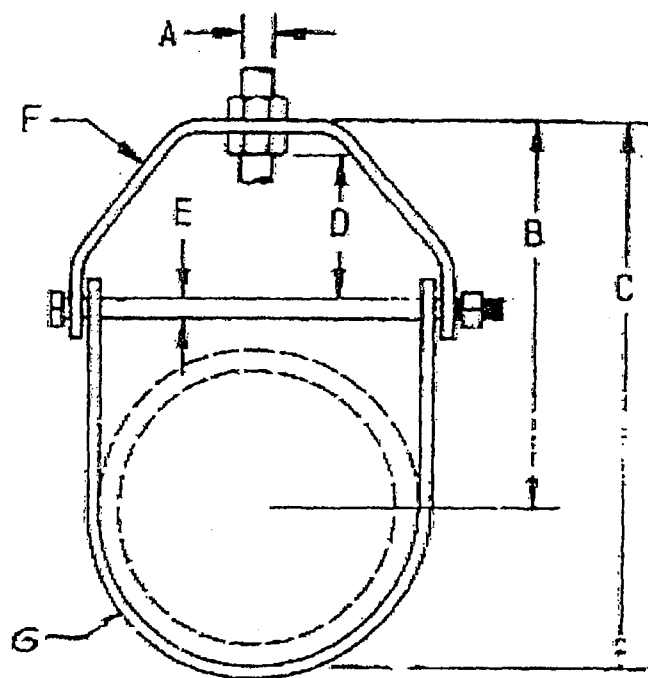
P/N PIPE STRAP, COATED

A FIG 603

REV.

SCALE CAD FILE:

SHEET OF



Size	A	B	C	D	E	F-Top	G-Bottom
1/2"	3/8"	1.5	2.0	0.62	1/4"	16ga x .75	16ga x .75
3/4"	3/8"	1.8	2.3	0.62	1/4"	16ga x .75	16ga x .75
1"	3/8"	2.2	2.8	0.88	1/4"	16ga x 1	16ga x 1.0
1.25"	3/8"	2.5	3.7	1.20	1/4"	16ga x 1	16ga x 1.0
1.5"	3/8"	2.8	4.0	1.20	1/4"	16ga x 1	16ga x 1.0
2"	3/8"	2.8	4.5	1.20	1/4"	14ga x 1	14ga x 1.0
2.5"	3/8"	3.8	6.0	2.00	1/4"	12ga x 1	13ga x 1.0
3"	3/8"	4.0	6.5	2.00	1/4"	12ga x 1	13ga x 1.0
4"	3/8"	4.7	7.0	2.00	5/16"	11ga x 1.25	12ga x 1.25

Greenfield Mfg Co Inc

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Material
Steel

Clevis - Light

Finish
None

FIG NO: 104

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APPROVALS:

LISTED

FM

APPROVED

UL

COMPLIES WITH MSS SP-58 TYPE 19

SEE MSS SP-69 FOR PROPER SET SCREW RECOMMENDATIONS

ROD SIZE	WT PER 100 PCS	MAX REC LOAD	CTN QTY	A	B	C	D	E
3/8	28	350#	100	.88	1.50	.31	.50	1.00
1/2	34	470#	100	.88	1.50	.31	.50	1.00
5/8	42	550#	50	1.12	1.75	.34	.63	1.37
3/4	80	700#	50	1.37	1.87	.41	.63	1.37
7/8	84	1000#	25	1.37	1.87	.41	.63	1.37

UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES
TOLERANCES ARE:
FRACTIONS DECIMALS ANGLES
+/- 1/8 .XX +/- .03 .XX + 1
.XXX +/- .01

MATERIAL

DUCTILE IRON

CAD GENERATED DRAWING,
DO NOT MANUALLY UPDATE

APPROVALS

DATE

DRAWN EG

CHECKED SB

GREENFIELD MFG CO

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JUNIOR
TOP BEAM CLAMP

FIG 125

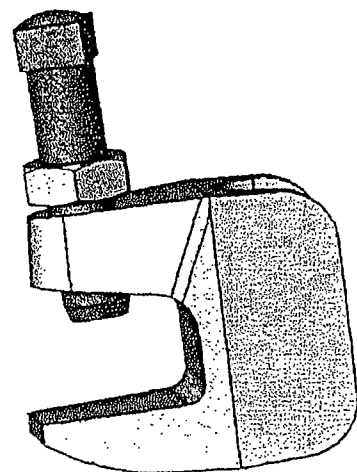
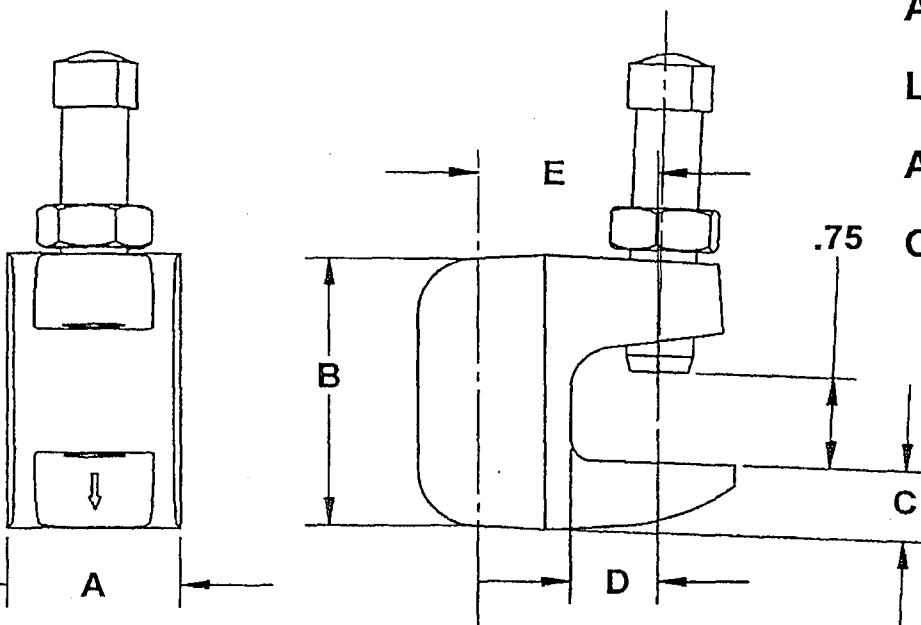
REV.

SCALE

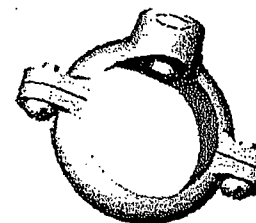
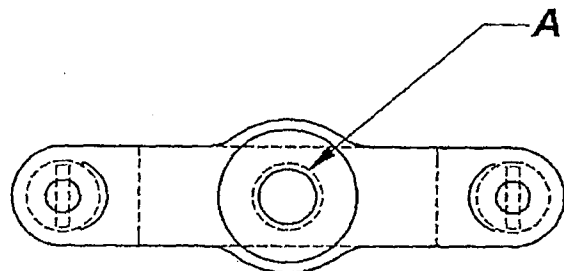
CAD FILE

SHEET OF

DO NOT SCALE DRAWING

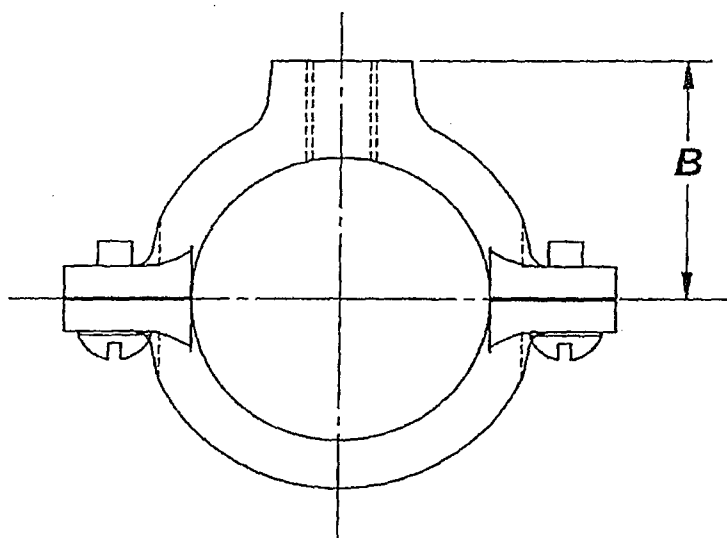


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FOR IRON PIPE

PIPE SIZE	A	B	WT / C APPROX	MAX REC LOAD
3/8	3/8	0.69	10	180
1/2	3/8	0.82	10	180
3/4	3/8	0.94	12	180
1	3/8	1.06	14	180
1-1/4	3/8	1.23	19	180
1 - 1/2	3/8	1.31	21	180
2	3/8	1.62	30	180



USE FIG 385
FOR SIZES 2-1/2 THRU 4

COMPLIES WITH WWH-171D TYP 25

UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES
TOLERANCES ARE:
FRACTIONS DECIMALS ANGLES
+/- 1/8 .XX +/- .03 .XX + 1
.XXX +/- .01

MATERIAL
DUCTILE IRON

DO NOT SCALE DRAWING

CAD GENERATED DRAWING,
DO NOT MANUALLY UPDATE

APPROVALS	DATE
DRAWN EG	11/05
CHECKED SB	11/05

GREENFIELD MFG CO

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P/N **SPLIT RING HANGER**

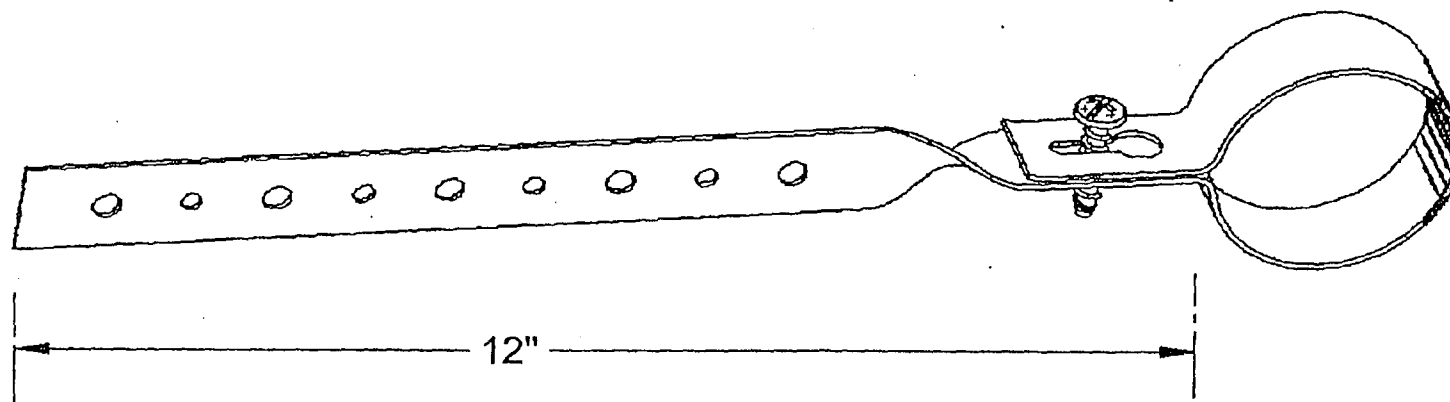
A **FIG 202**

REV.

SCALE CAD FILE: **202.SLDDRW**

SHEET OF

SIZE	MATERIAL
1-1/2	18 GA X 3/4
2	18 GA X 3/4
3	16 GA X 3/4
4	16 GA X 3/4



MAXIMUM REC LOAD
150 LBS
SAFTEY FACTOR = 4

MATERIAL GALV. STEEL		Greenfield Mfg Co 920 Levick St, Phila.,Pa. 19111-5498	
FINISH NONE	TOLERANCES XXX XX FR	Dr. EG Chk. SB Appr. sb Date 4/10/03	DWV HANGER (UNCOATED)
		FSCM 98320	P/N FIG - 120

ATTACHMENT

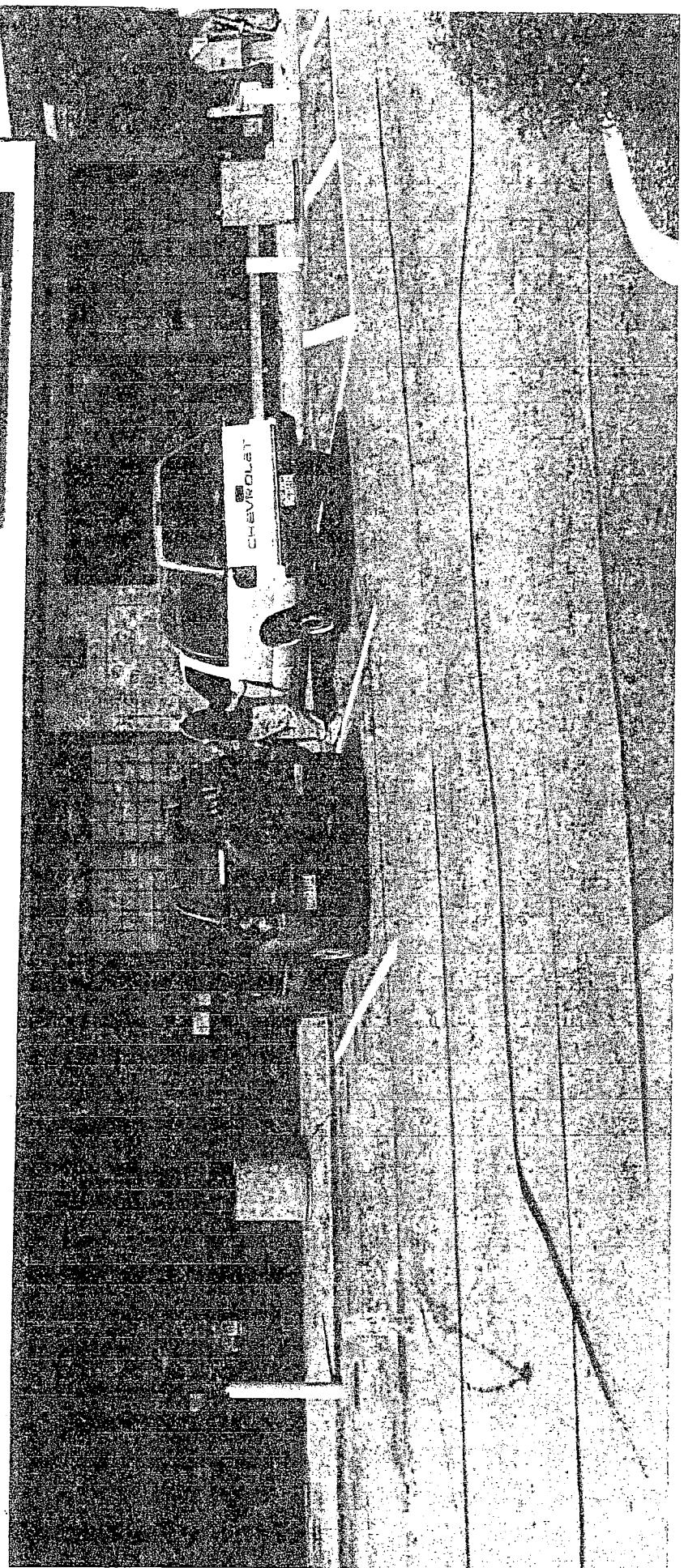
10

WASH 'N' DRY

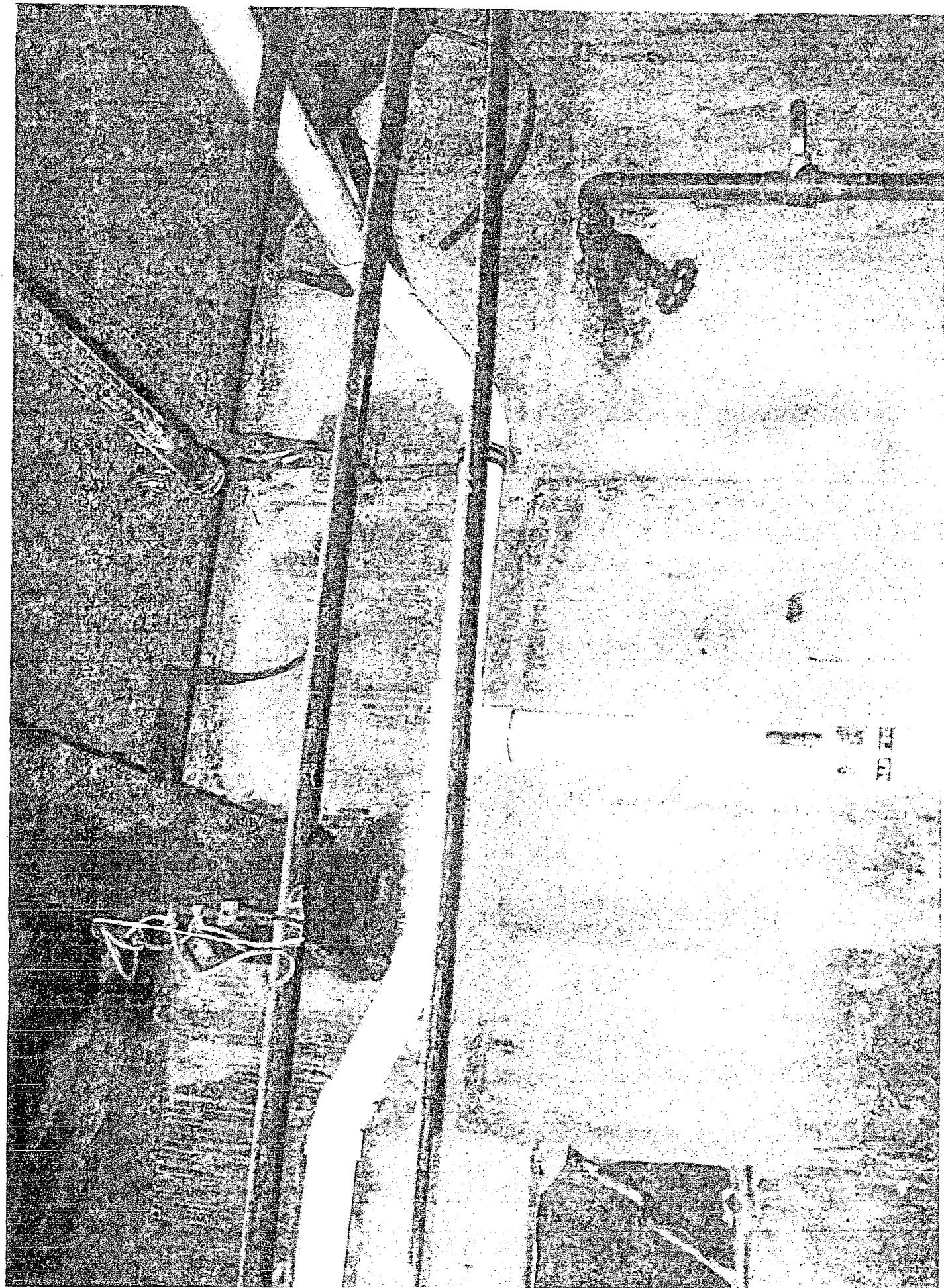
**FITNES
KICKBOXING**

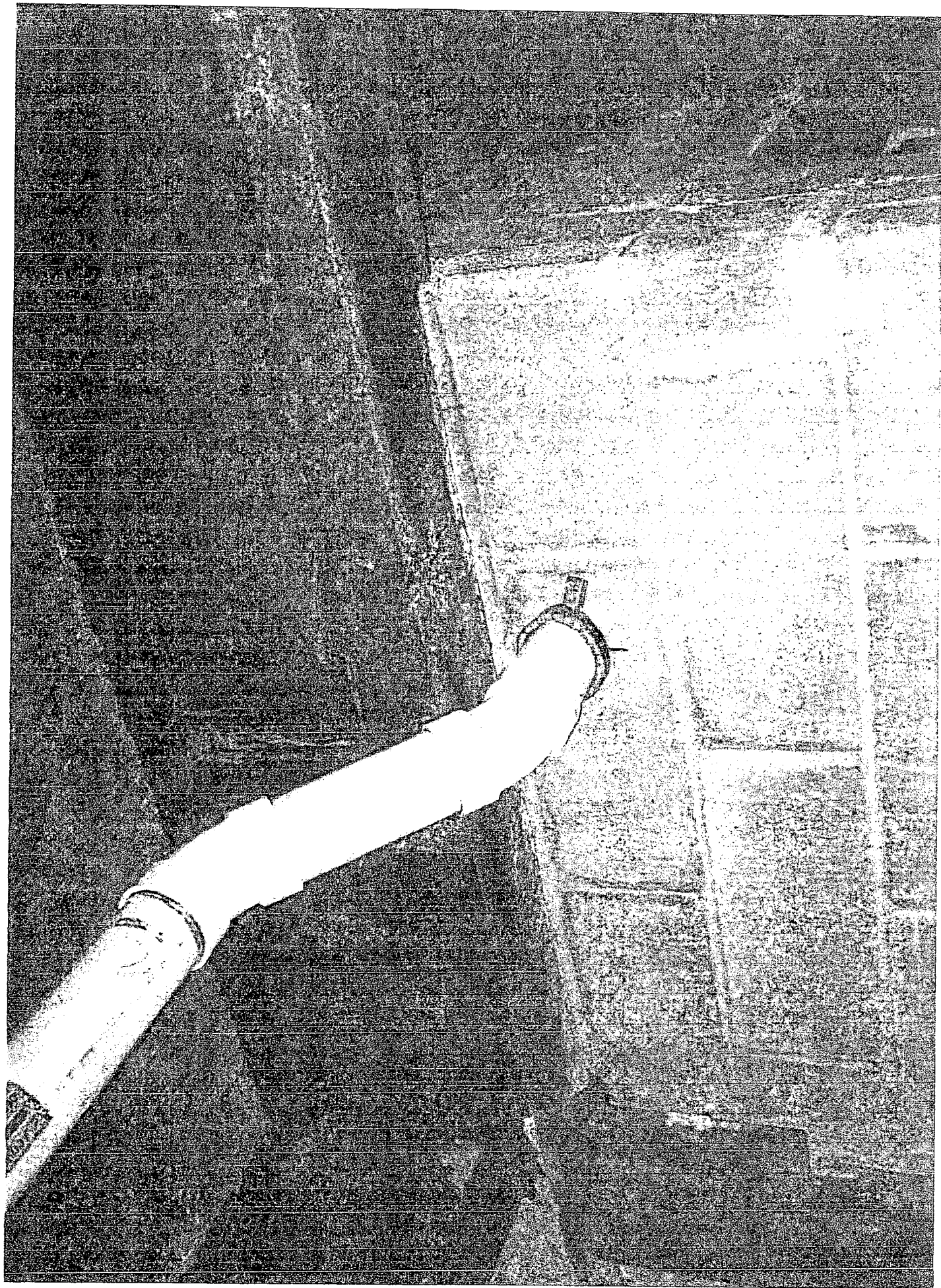
Roll-over Service
Loan Wight
Foot Grind

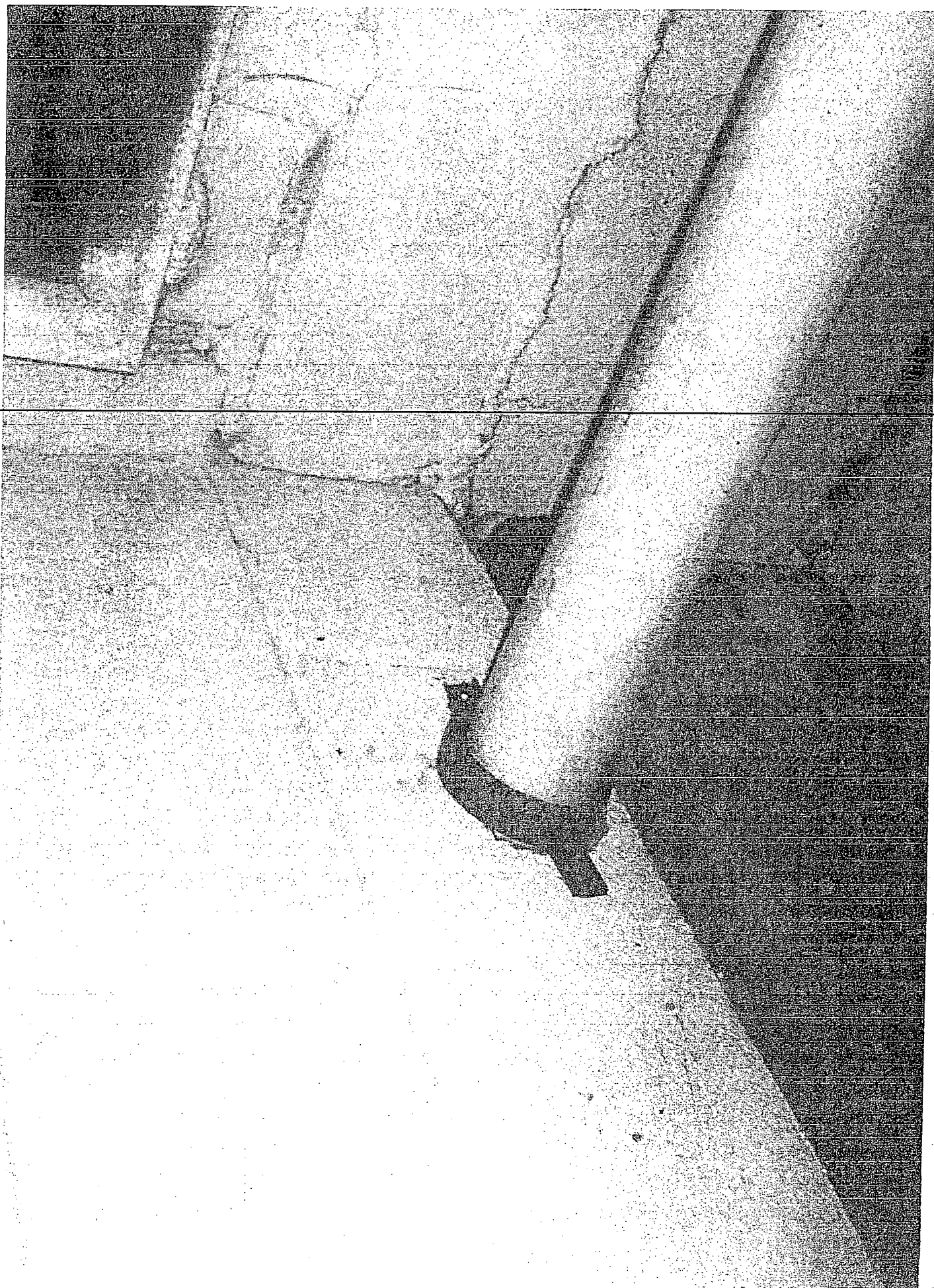
KARATE
 Students: Adults
 916-734-2461

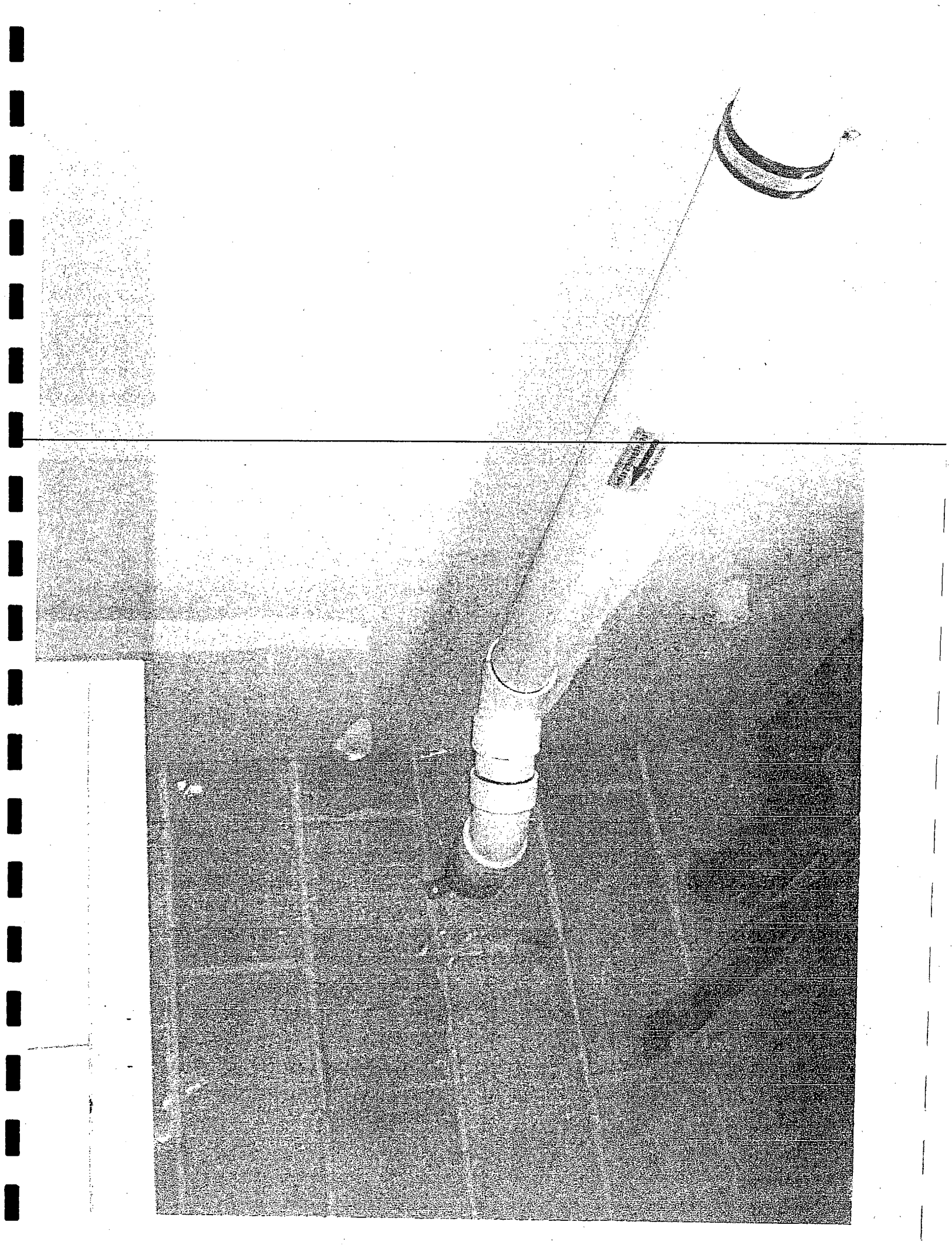


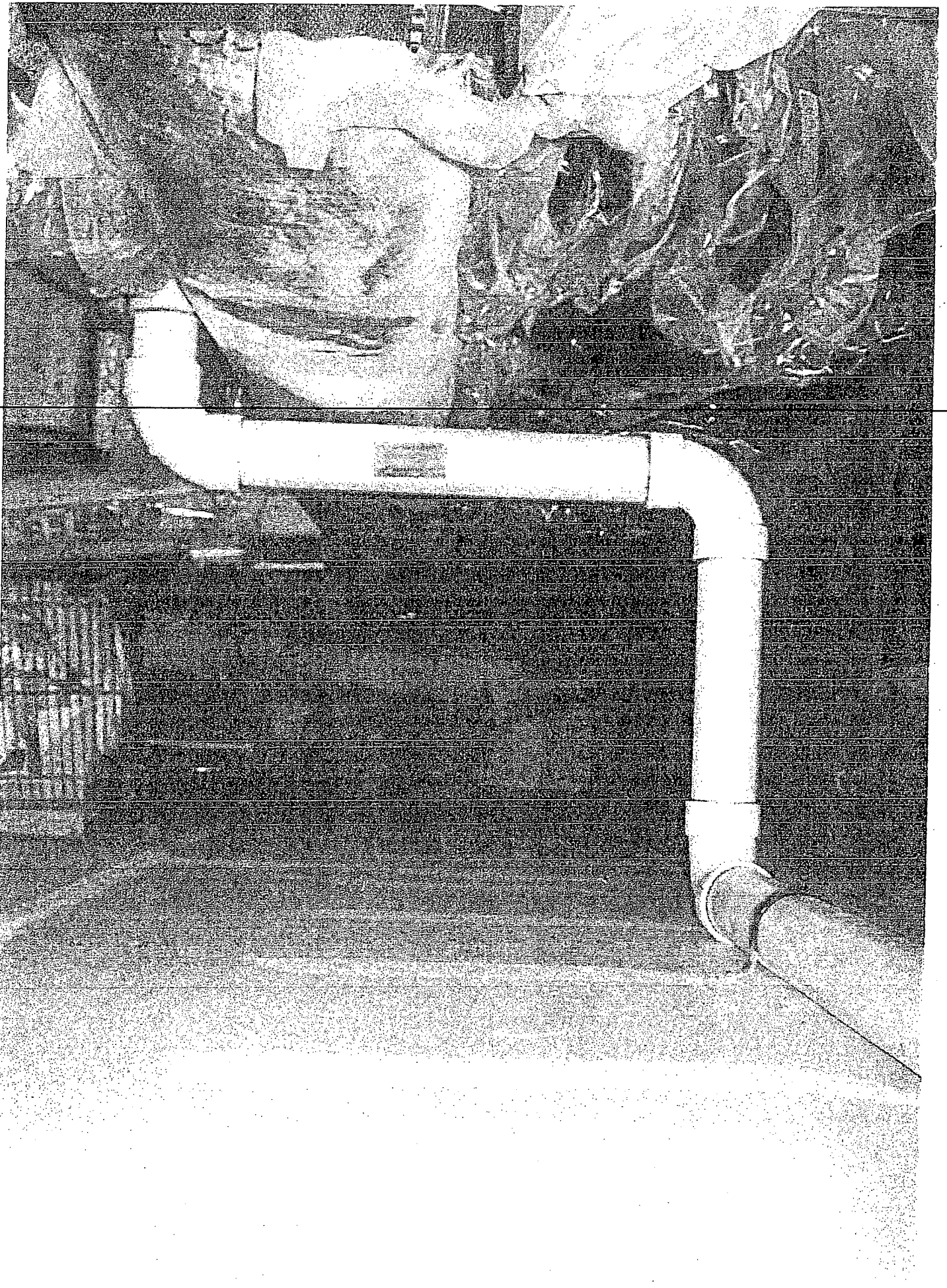


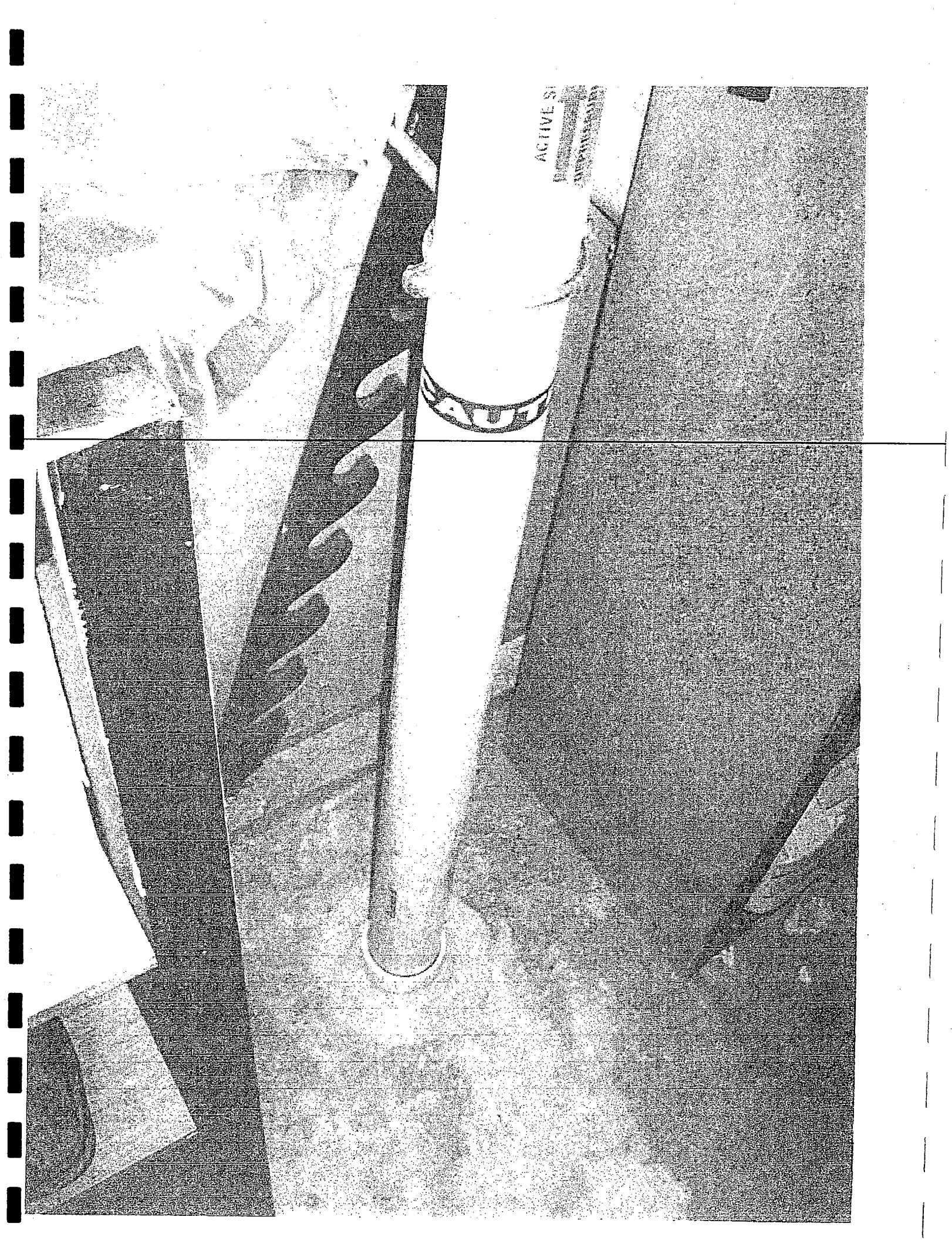


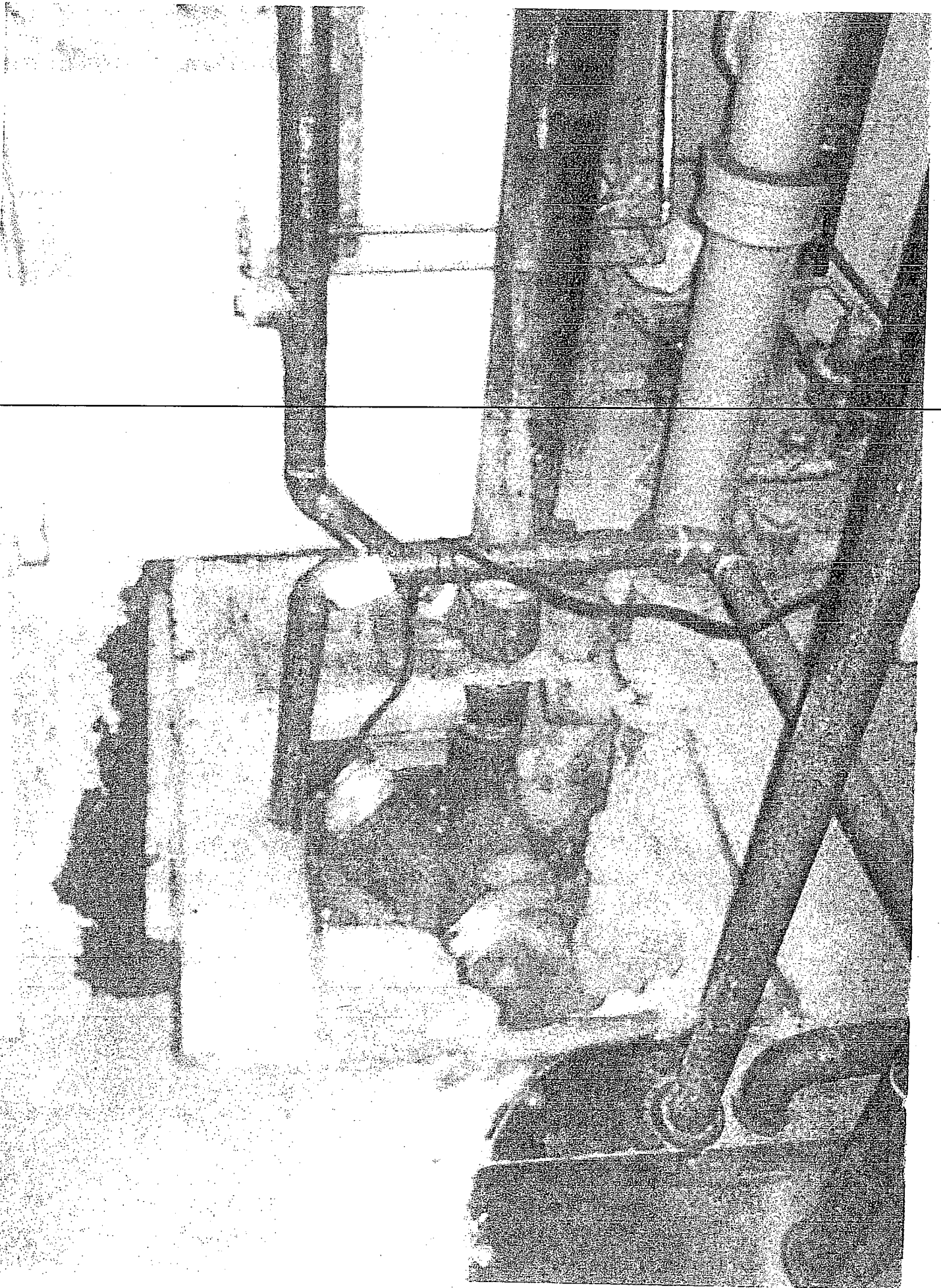


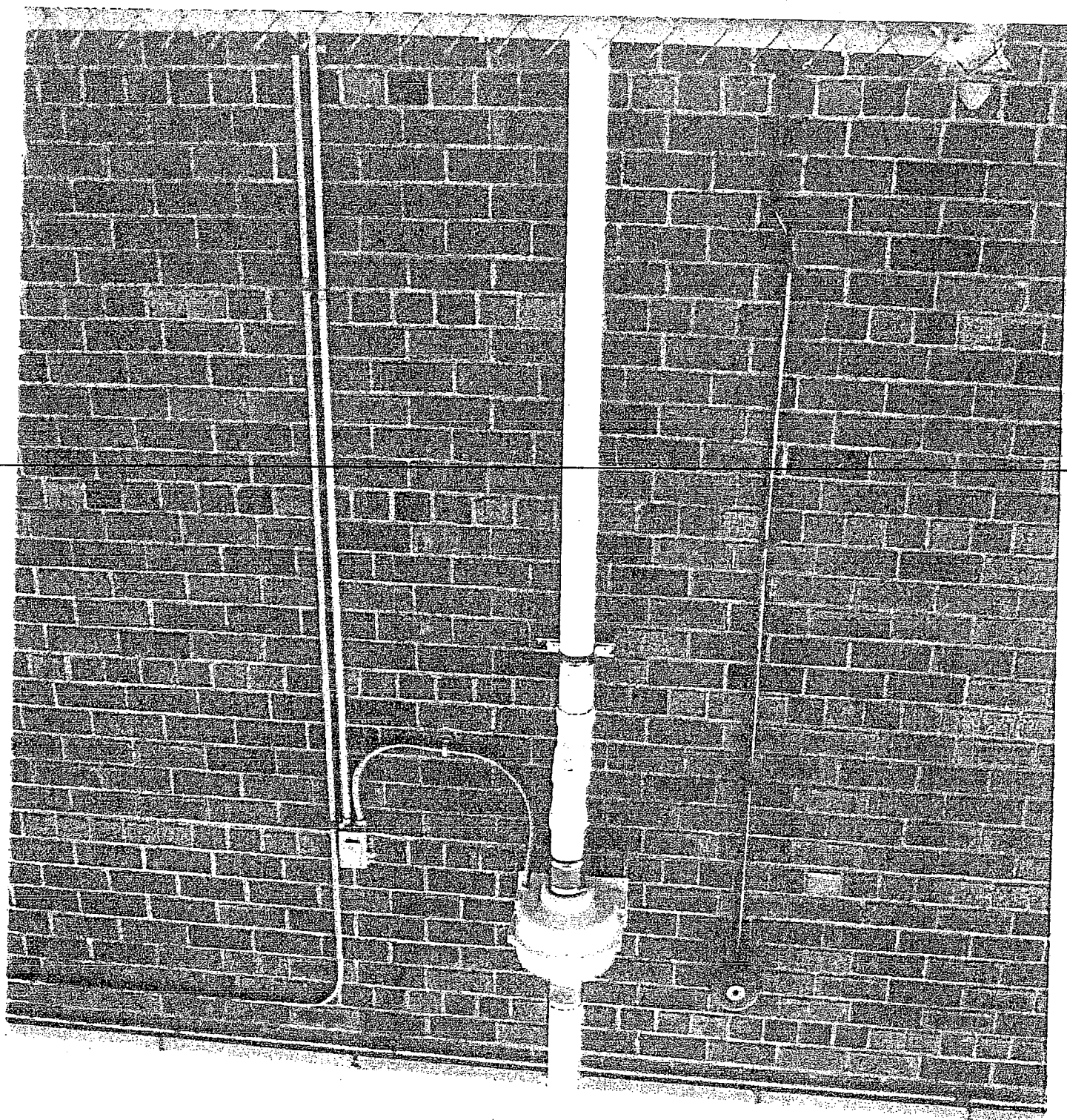




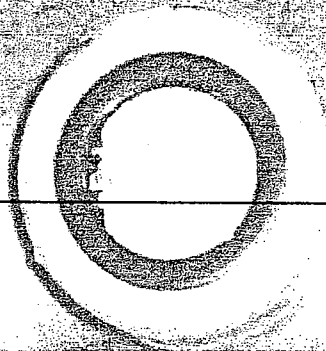




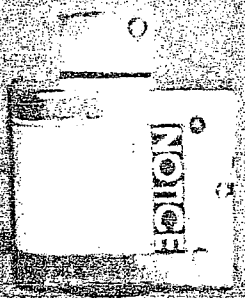


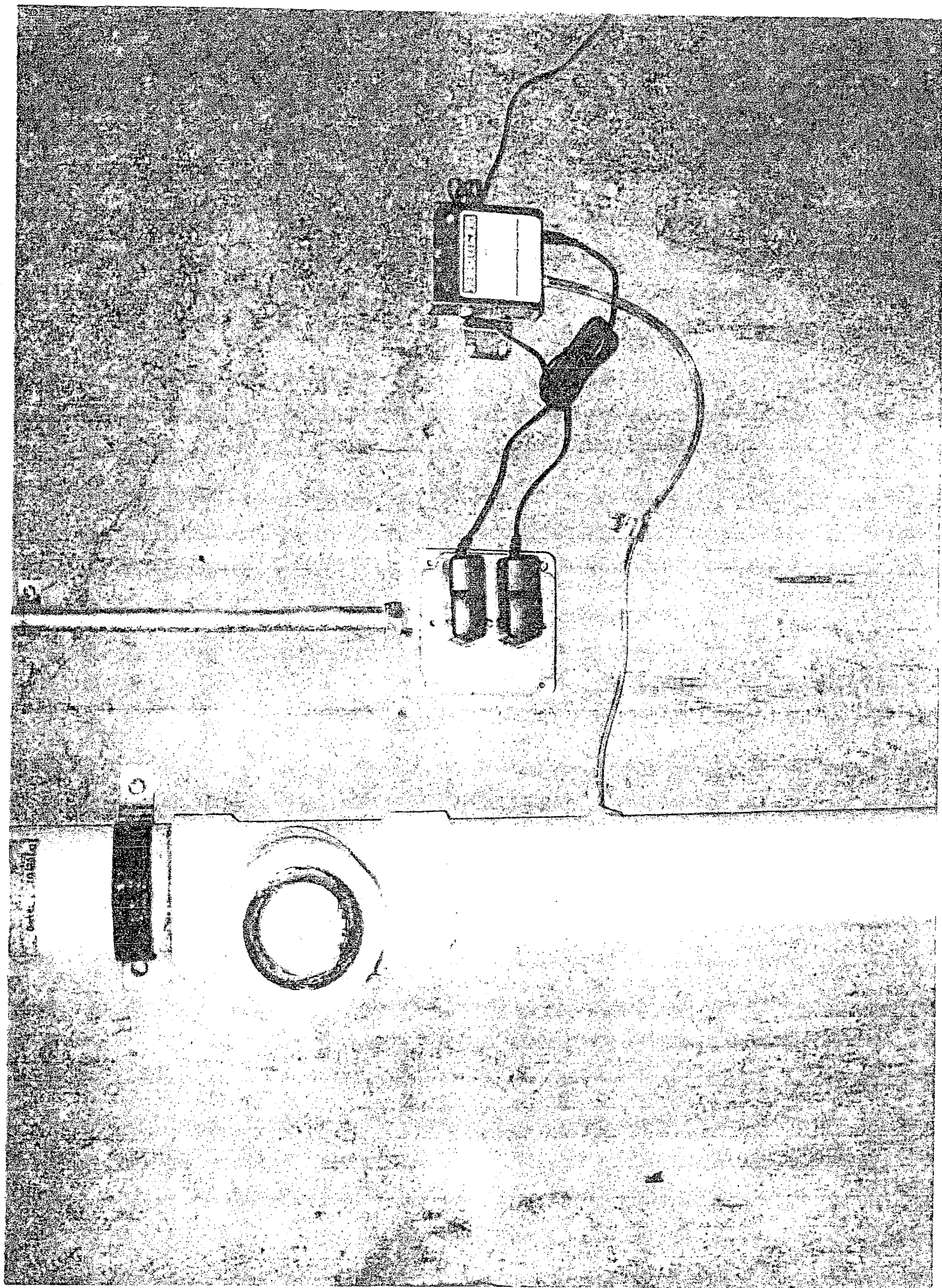


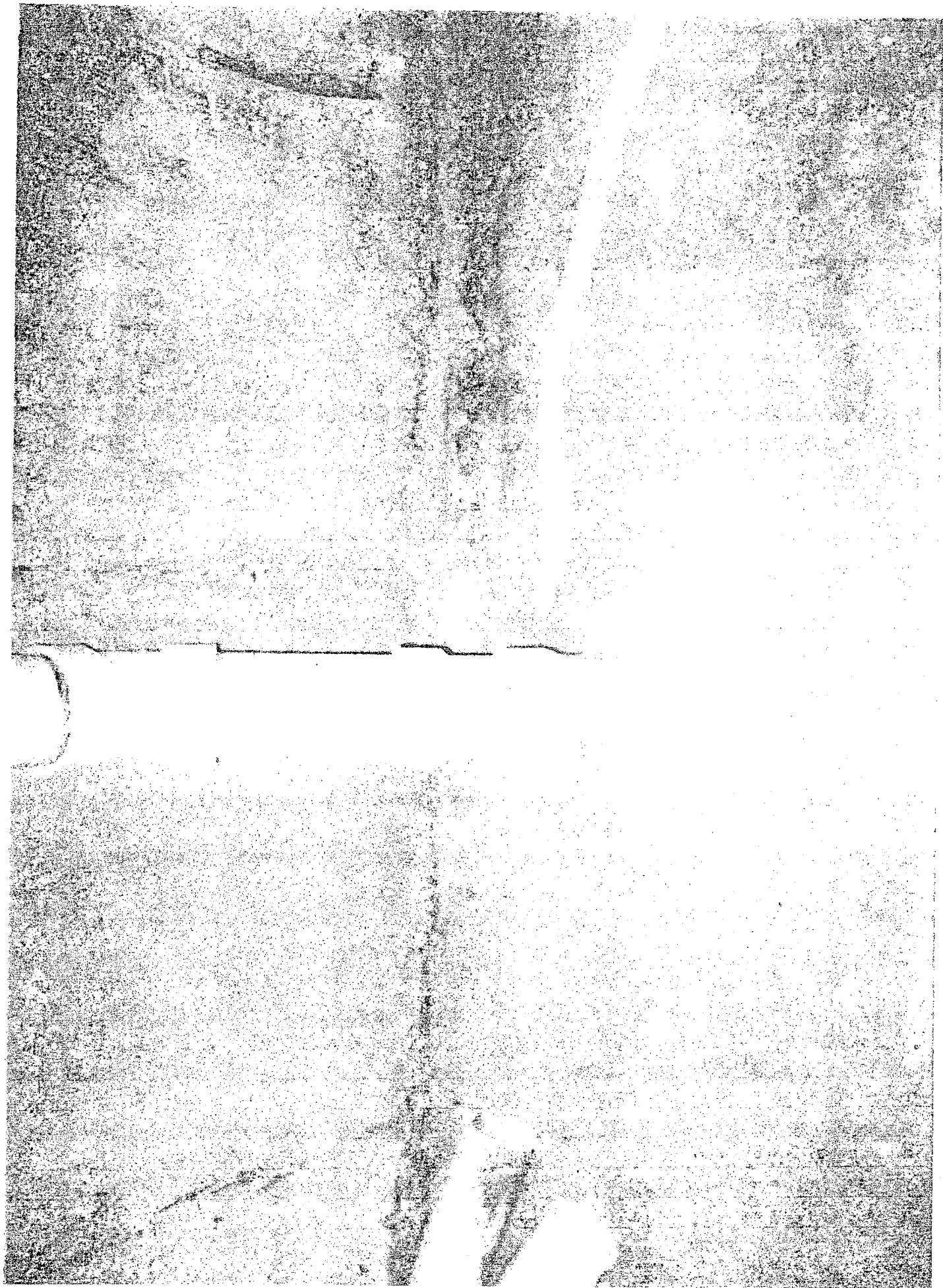
UTIO



DE

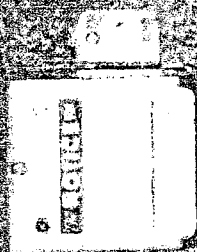


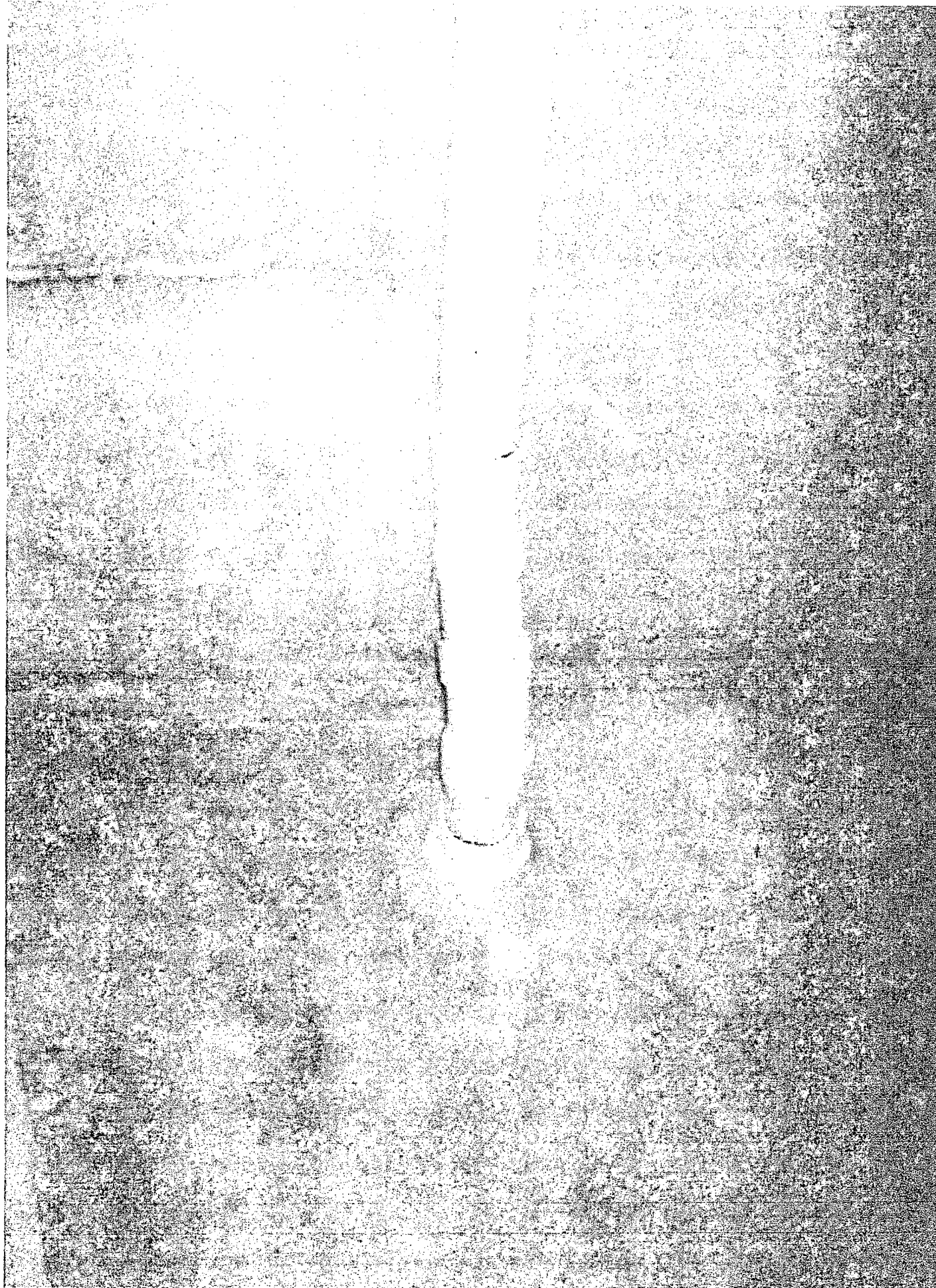


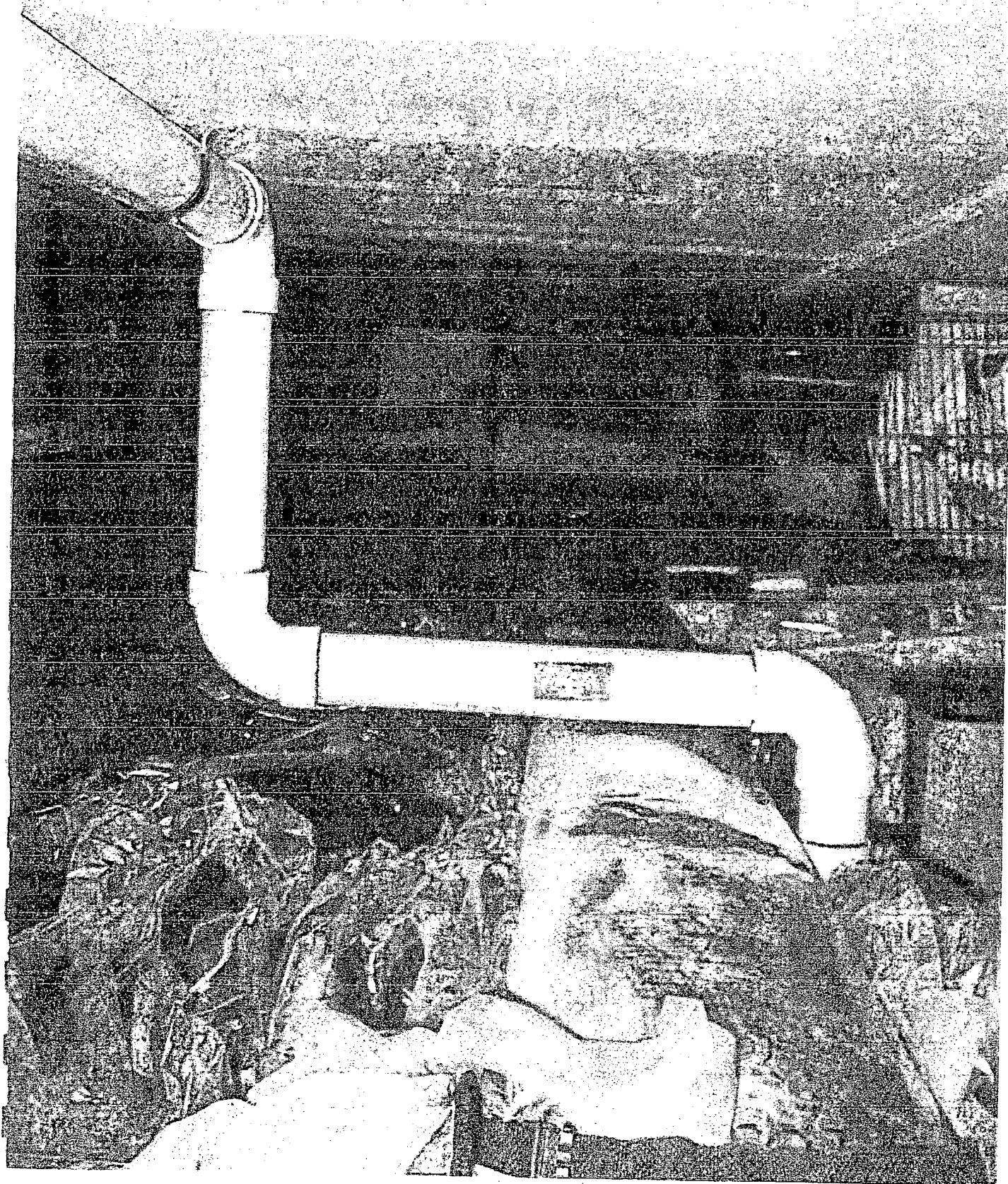


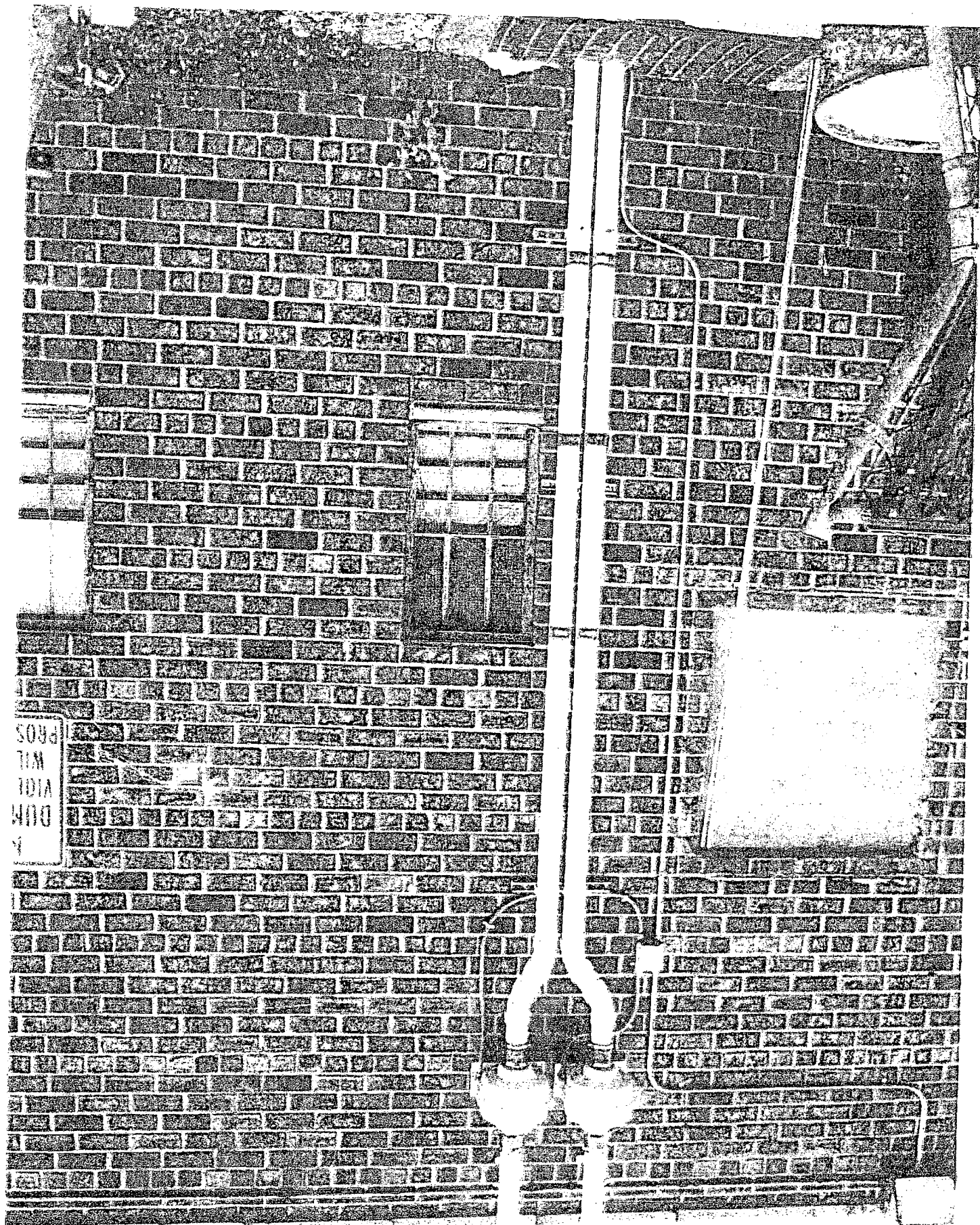
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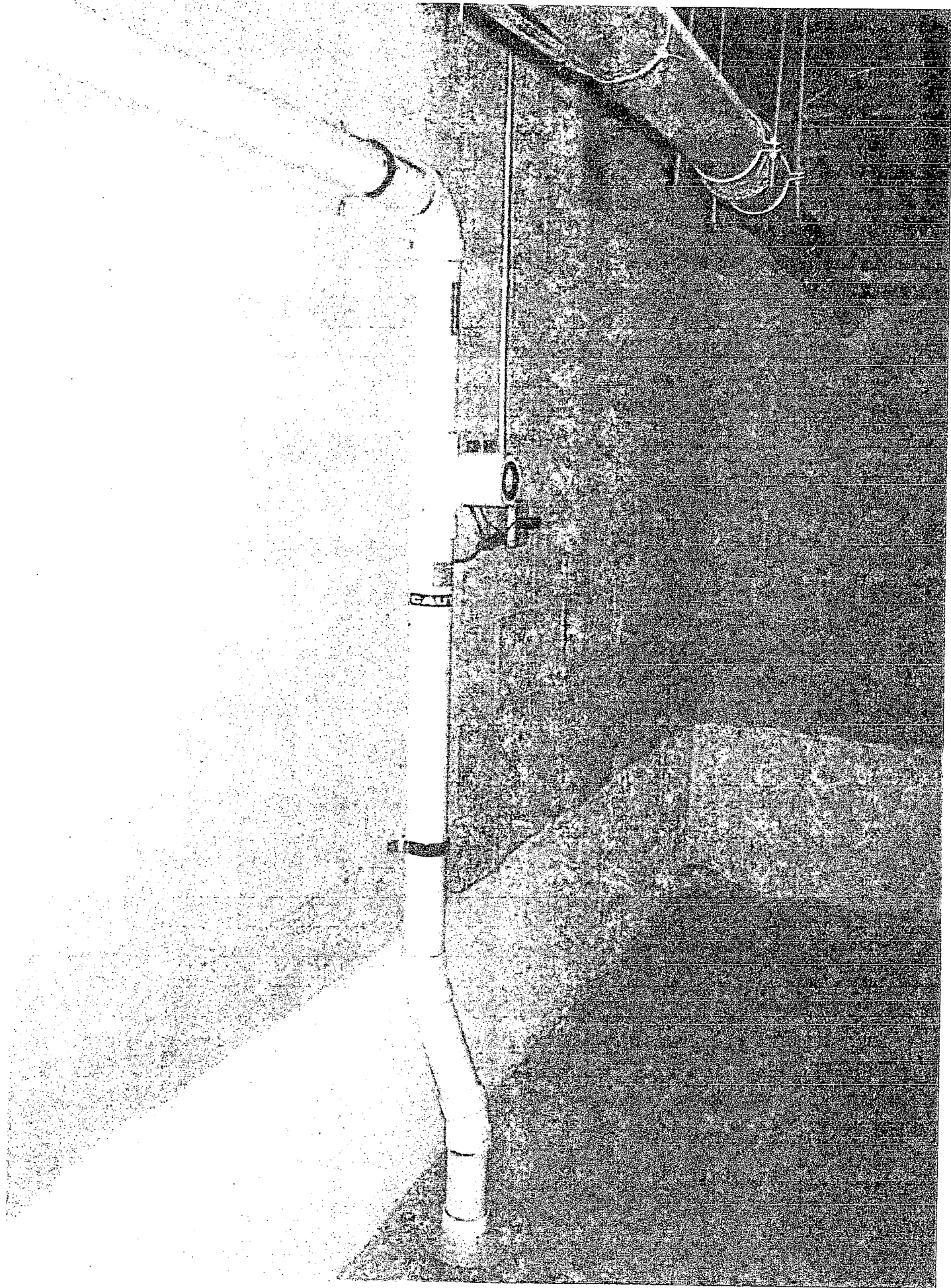


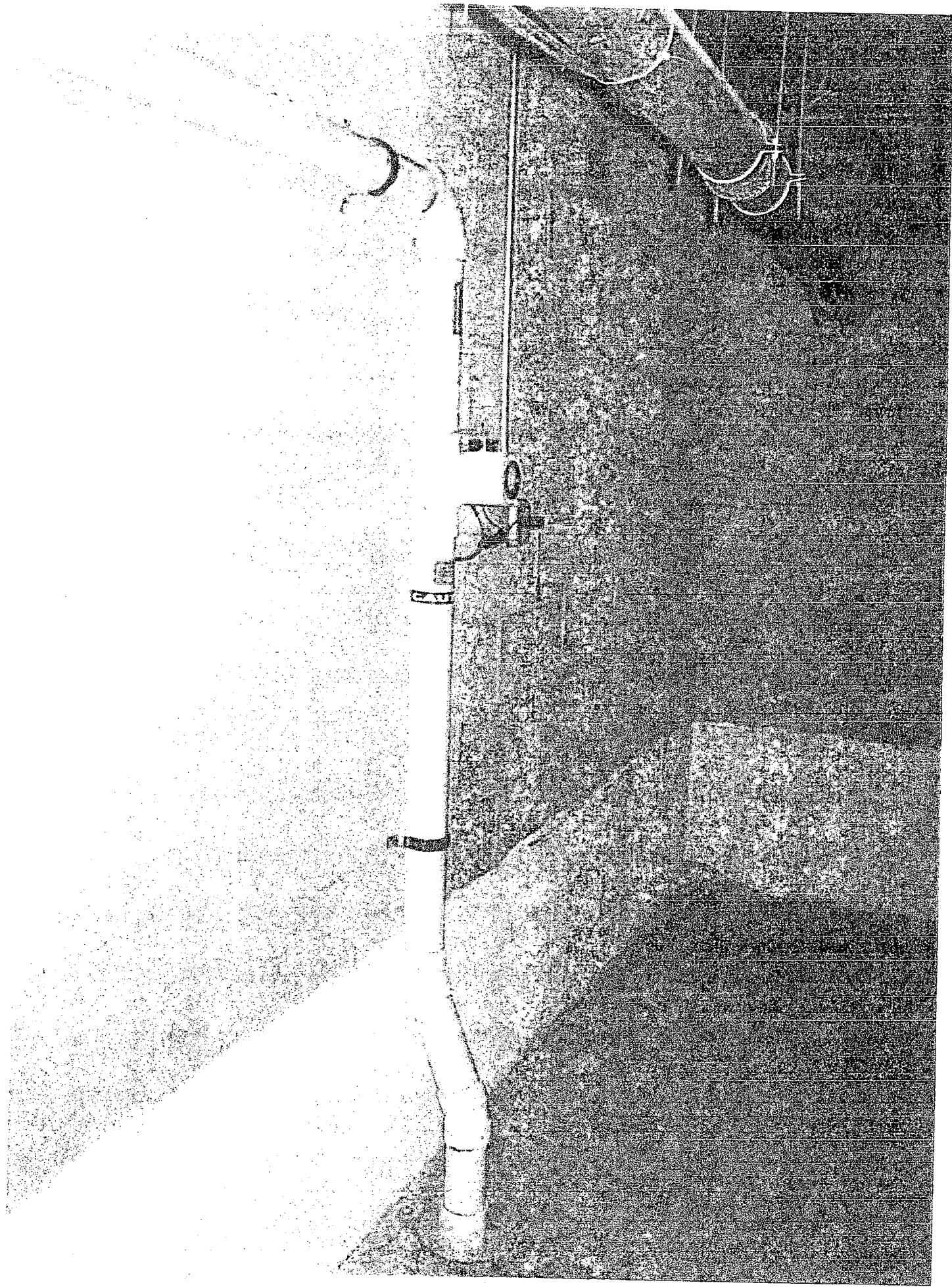






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APPENDIX D

COPY

**FINAL PROJECT REPORT FOR THE
INSTALLATION OF ACTIVE
SOIL DEPRESSURIZATION SYSTEMS
AT THE BLUE MOUNTAIN PLAZA, 20
WELCHER AVENUE, PEEKSKILL, N.Y**

Prepared for:

Kurtsam Realty
Box 383 Quaker Ridge Road
Croton-On-Hudson, New York 10520

Prepared by:

Mr. David Grammer
RAdata, Inc.
27 Ironia Road
Flanders, New Jersey
Phone: (973) 927-7303 Fax: (973) 927-4980
E-Mail: dg@radata.com

January 14, 2011

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INSTALLATION OF ACTIVE SOIL DEPRESSURIZATION SYSTEMS

THE BLUE MOUNTAIN PLAZA, 20 WELCHER AVENUE, GO NO SEN KARATE DOJO, FITNESS KICKBOXING AND VACANT WASH "N" DRY, PEEKSKILL, N.Y

1.0 INTRODUCTION AND BACKGROUND

RAdata, Inc. has completed the installation of Active Soil Depressurization Systems (ASDS) at the Go No Sen Karate Dojo, Fitness Kickboxing and the vacant Wash "N" Dry located in The Blue Mountain Plaza at 20 Welcher Avenue in Peekskill, New York. This complex is owned by Kurtsam Realty. This work commenced on October 19, 2010 and was completed on October 21, 2010.

Indoor and soil air sampling was previously conducted at the site by Bell Environmental, 230 Route 206, Flanders, New Jersey. The results of these samplings show numerous volatile organic compounds (VOCs) that exceed the New York State Department of Health (NYDOH) background concentrations.

1.1 Site Description

The subject facility is a one-story masonry building with a basement. The basement is partitioned into two sections, one beneath the Go No Sen Karate Dojo and Fitness Kickboxing which is dissected into various use rooms and one beneath the vacant Wash "N" Dry. There is a concrete slab with masonry outer walls. The facility is a one story building approximately 18 feet high with a brick exterior. The age of the foundation is unknown. The building has a flat roof. Total square footage of indoor space is approximately 3,000 square feet +/-.

1.2 Site Contaminants

Air sampling conducted at the Blue Mountain Plaza property prior to the installation of the Active Soil Depressurization Systems detected the following contaminants exceeding the New York State Department of Health (NYDOH) background concentrations.

Acetone	Chloroform
Ethanol	Tetrachloroethene (PCE)
Trichlorofluoromethane	Trichloroethene (TCE)
Tetrahydrofuran	Total Xylenes
Cis-1,2-Dichloroethylene	Chloromethane
N-Hexane	

2.0 **MITIGATION APPROACH**

The primary method for reducing soil borne pollutants according to the N.Y.D.O.H Guidance for Evaluating Soil Vapor Intrusion in the State of New York (October 2006) is Active Soil Depressurization Systems (ASDS). Active Soil Depressurization Systems prevent soil borne pollutants entry into the building by creating a negative pressure (vacuum) beneath the slab through fan activated PVC pipe routed to the exterior of the building and vented above the roofline. It is at this location where these pollutants are quickly diluted by the ambient air. The Active Soil Depressurization Systems may also remove moisture and other soil pollutants that enter the building, therefore thus improving the overall air quality of the building.

The Active Soil Depressurization Systems are installed so as to coordinate with other building components especially those that require maintenance or clearance of any type. All mitigation components are installed to facilitate servicing, maintenance and repair or replacement of other equipment components both inside and outside of the building. All systems, materials and equipment were installed level, plumb, parallel or perpendicular to other building systems and components unless otherwise specified. All fan components are UL or equivalent rated.

3.0 **INSTALATION OF PERMANENT ACTIVE SOIL DEPRESSURIZATION SYSTEMS**

Based on data gathered during the sub-slab vacuum testing the decision was made by RAdata, Inc. to install a total of three (3) permanent ASDS. Systems locations can be found on the As Built Drawing as Attachment 1. After four (4) four-inch (4") holes were core drilled through the concrete floor, about one cubic foot of soil was removed from beneath the slab using a shop vac. Soil was placed in a 55-gallon drum for proper disposal. These holes were piped with three-inch (3") Schedule 40 PVC pipe (ASTM D 1785) routed to the exterior of the building. Two (2) of the ASDS were routed to the rear of the building and one (1) to the right side of the building. Split-ring hangers, clevis hangers and two-hole straps were used to attach the pipe securely to the building. The

exhaust of three-inch (3") Schedule 40 PVC pipe was routed above the roofline at that location. The vent fans are mounted directly to the PVC pipe slightly below the roofline using rubber couplers.

There was also an existing sump pit and submersible sump pump in the basement that was covered using a removable Plexiglas cover.

The three (3) fan units are Dynavac GP 501 fans (70-140 Watts) with a maximum pressure of 4.00 Inches of Water capable of evacuating 95 Cubic Feet Per Minute at 1" static pressure. Fan specifications can be found as Attachment 2. Conte Electric, 34 Brook Street, Croton-On-Hudson, New York 10520 (914-271-6636) provided electrical service to the fan units. Electrical service disconnects are located on the exterior of the building directly next to the fan units. To provide constant evaluation of system performance, Mini-magnehelic pressure gauges were installed in a conspicuous location on the PVC pipe in the basement area along with audio alarms which sound when fan failure has occurred. All components of the ASDS systems are clearly labeled as to their function. RAdata, Inc. contact information labels are attached to each system and are clearly visible.

The ASDS should not be turned off until the N.Y.D.O.H receives, and has had the opportunity to comment on, a proposal to turn off the mitigation systems. Systems should remain in place and operational until they are no longer needed to address current or potential exposures related to soil vapor intrusion.

3.1 Vacuum and Air Stream Measurements of Permanent Active Soil Depressurization Systems

After the installation of the ASDS, RAdata, Inc. conducted sub-slab vacuum measurements using a Dwyer digital Micro manometer to determine their sphere of influence. Four (4) test point locations were used to determine the sphere of influence within this particular portion of the building. The sub-slab vacuum test point locations and test results can be found as Attachment 3. The goal of a successful ASDS system is to create a negative pressure of -.004 Inches of Water Column or 1 Pascal. The outbound effluent air-stream should also be tested, the purpose of which is to determine whether operation of the ASDS requires a New York State Department of Health (N.Y.D.O.H) air permit for discharge of volatile organic compounds (VOCs).

3.2 Conclusions of Vacuum Measurements For The Active Soil Depressurization Systems

All four (4) test point locations indicate that the sub-floor vacuum created by the three (3) ASDS meets or exceed the goal of a successful ASDS system which is to create a negative pressure of -.004 Inches of Water Column or 1 Pascal.

4.0 DISPOSAL OF SOIL AND CONSTRUCTION DEBRIS

The one 55-gallon container of soil removed from beneath the floor, as well as construction debris, was disposed of by Clean Ventures, 2001 South First Street, Elizabeth, New Jersey, (908-355-5800). The drums were removed from the site on December 19, 2007. A copy of the disposal manifest can be found as Attachment 4.

5.0 PERMITS

RAdata, Inc. and its sub-contractors have procured the necessary permits for the installation of the ASDS. A copy of the City of Peekskill Building and Electrical permits for the installation of the ASDS can be found as Attachment 5.

6.0 WORKER HEALTH AND SAFETY

A copy of our Worker Health and Safety Plan For Installing the Active Soil Depressurization Systems can be found as Attachment 6. Phase Associates, LLC, 316 Eisenhower Parkway, Livingston, New Jersey, 973-597-0750, prepared this document for RAdata, Inc.

7.0 OPERATIONS, MAINTENANCE AND MONITORING

The building Owner is responsible for ongoing system Operations, Maintenance and Monitoring as well as verification sampling of indoor air quality. RAdata, Inc. should conduct an inspection at a six-month interval after the installation has been completed. After the first year, a reduced inspection frequency may be appropriate and changed to once every 12 to 18 months. Based upon a demonstration of the system's reliability, the N.Y.D.O.H recommends that, if a different frequency is desired, a petition describing the alternative frequency and the reasons that frequency is preferred may be submitted to the State. Submission of an annual certification to the N.Y.D.O.H may be required. Comprehensive maintenance procedures can be found as Attachment 7.

8.0 WARRANTIES

All work was completed in a professional, workmanlike manner. RAdata, Inc. warrants all system components and workmanship for a period of three (3) years from the date of installation.

9.0 CONCLUSION

The goal of a successful ASDS system is to create a negative pressure of between -.004 Inches of Water Column. Sub floor vacuum measurements reflect an acceptable vacuum in all four (4) interior test point locations. Test point locations and results can be found as Attachment 3. Post treatment indoor air sampling test results will be the defining factor as to the success of the ASDS systems.

10.0 CONTACT INFORMATION

GENERAL CONTRACTOR

Radata. Inc.
27 Ironia Road
Flanders, New Jersey 07836
973-927-7303 Telephone
973-917-4980 Fax
dg@radata.com

SUB CONTRACTORS

Electrical Service
Conti Electric, Inc.
34 Brook Street
Croton-on-Hudson 10520
914-271-6636

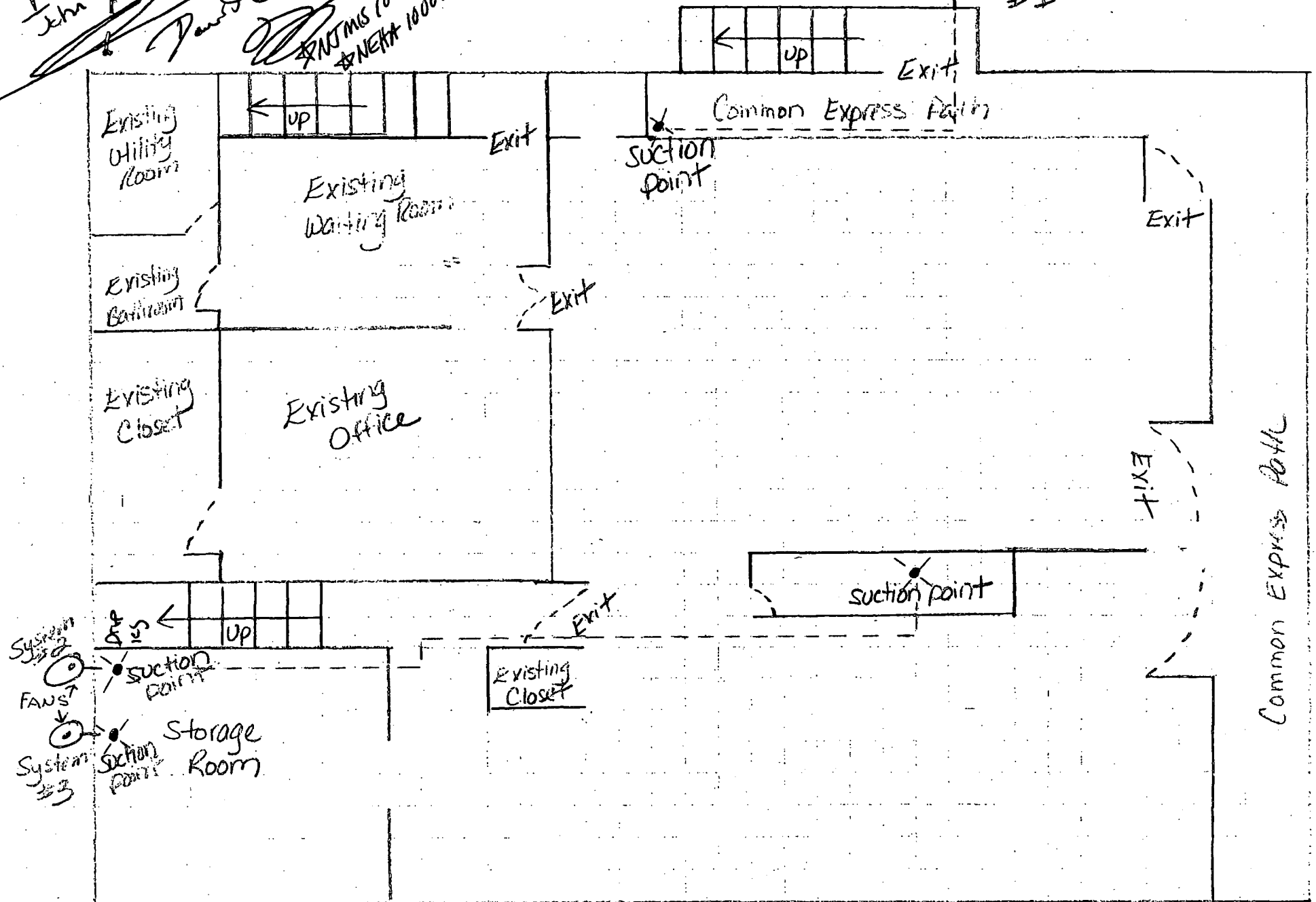
Soil Waste Disposal
Clean Ventures, Inc.
201 South 1st Street
Elizabeth, NJ 07206
908-355-5800

ATTACHMENT

1

MISSISSIPPI
John Doe
Paul J. Brennan
#NIMS 10027
#NETA 100012

System #1



X Suction Points
--- PVC Pipe
O Vent Fans

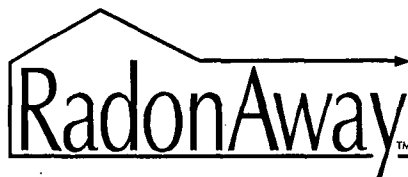
Go No Sen Karate Dojo
20 Welcher Ave Peekskill, NY

AS BUILT DRAWING
Drawing Not to Scale.

End of Building

ATTACHMENT

2



RadonAway Ward Hill, MA IN014 Rev F

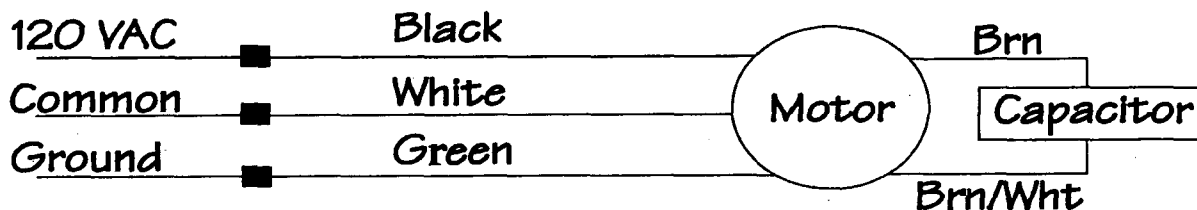
XP/GP/XR Series Fan Installation Instructions

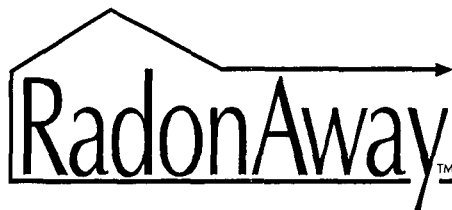
Please Read And Save These Instructions.

DO NOT CONNECT POWER SUPPLY UNTIL FAN IS COMPLETELY INSTALLED. MAKE SURE ELECTRICAL SERVICE TO FAN IS LOCKED IN "OFF" POSITION. DISCONNECT POWER BEFORE SERVICING FAN.

1. **WARNING!** Do not use fan in hazardous environments where fan electrical system could provide ignition to combustible or flammable materials.
2. **WARNING!** Do not use fan to pump explosive or corrosive gases.
3. **WARNING!** Check voltage at the fan to insure it corresponds with nameplate.
4. **WARNING!** Normal operation of this device may affect the combustion airflow needed for safe operation of fuel burning equipment. Check for possible backdraft conditions on all combustion devices after installation.
5. **NOTICE!** There are no user serviceable parts located inside the fan unit.
Do NOT attempt to open. Return unit to the factory for service.
6. All wiring must be performed in accordance with the National Fire Protection Association's (NFPA) "National Electrical Code, Standard #70"-current edition for all commercial and industrial work, and state and local building codes. All wiring must be performed by a qualified and licensed electrician.
7. **WARNING!** Do not leave fan unit installed on system piping without electrical power for more than 48 hours. Fan failure could result from this non-operational storage.

DynaVac GP/XP/XR/RP Series Fan Wiring Diagram





INSTALLATION INSTRUCTION IN014 Rev F

DynaVac - XP/XR Series

XP101 p/n 23008-1,-2

XP151 p/n 23010-1,-2

XP201 p/n 23011-1,-2

XR161 p/n 23018-1,-2 *

XR261 p/n 23019-1,-2

DynaVac - GP Series

GP201 p/n 23007-1

GP301 p/n 23006-1,-2

GP401 p/n 23009-1

GP501 p/n 23005-1,-2

1.0 SYSTEM DESIGN CONSIDERATIONS

1.1 INTRODUCTION

The DynaVac GP/XP/XR Series Radon Fans are intended for use by trained, professional Radon mitigators. The purpose of this instruction is to provide additional guidance for the most effective use of a DynaVac Fan. This instruction should be considered as a supplement to EPA standard practices, state and local building codes and state regulations. In the event of a conflict, those codes, practices and regulations take precedence over this instruction.

1.2 ENVIRONMENTALS

The GP/XP/XR Series Fans are designed to perform year-round in all but the harshest climates without additional concern for temperature or weather. For installations in an area of severe cold weather, please contact RadonAway for assistance. When not in operation, the fan should be stored in an area where the temperature is never less than 32 degrees F. or more than 100 degrees F.

1.3 ACOUSTICS

The GP/XP/XR Series Fan, when installed properly, operates with little or no noticeable noise to the building occupants. The velocity of the outgoing air should be considered in the overall system design. In some cases the "rushing" sound of the outlet air may be disturbing. In these instances, the use of a RadonAway Exhaust Muffler is recommended.

1.4 GROUND WATER

In the event that a temporary high water table results in water at or above slab level, water may be drawn into the riser pipes thus blocking air flow to the GP/XP/XR Series Fan. The lack of cooling air may result in the fan cycling on and off as the internal temperature rises above the thermal cutoff and falls upon shutoff. Should this condition arise, it is recommended that the fan be turned off until the water recedes allowing for return to normal operation.

1.5 SLAB COVERAGE

The GP/XP/XR Series Fan can provide coverage up to 2000+ sq. ft. per slab penetration. This will primarily depend on the sub-slab material in any particular installation. In general, the tighter the material, the smaller the area covered per penetration. Appropriate selection of the GP/XP/XR Series Fan best suited for the sub-slab material can improve the slab coverage. The GP & XP series have a wide range of models to choose from to cover a wide range of subslab material. The higher static suction fans are generally used for tighter subslab materials. The XR Series is specifically designed for high flow applications such as stone/gravel and drain tile. Additional suction points can be added as required. It is recommended that a small pit (5 to 10 gallons in size) be created below the slab at each suction hole.

1.6 CONDENSATION & DRAINAGE

Condensation is formed in the piping of a mitigation system when the air in the piping is chilled below its dew point. This can occur at points where the system piping goes through unheated space such as an attic, garage or outside. The system design must provide a means for water to drain back to a slab hole to remove the condensation. The GP/XP/XR Series Fan **MUST** be mounted vertically plumb and level, with the outlet pointing up for proper drainage through the fan. Avoid mounting the fan in any orientation that will allow water to accumulate inside the fan housing. The GP/XP/XR Series Fans are **NOT** suitable for underground burial.

For GP/XP/XR Series Fan piping, the following table provides the minimum recommended pipe diameter and pitch under several system conditions.

Pipe Dia.	Minimum Rise per Foot of Run*		
	@25 CFM	@50 CFM	@100 CFM
4"	1/8"	1/4"	3/8"
3"	1/4"	3/8"	1 1/2"

RISE

RUN

*Typical GP/XP/XR Series Fan operational flow rate is 25 - 90 CFM.
(For more precision, determine flow rate by using the chart in the addendum.)

Under some circumstances in an outdoor installation a condensate bypass should be installed in the outlet ducting as shown. This may be particularly true in cold climate installations which require long lengths of outlet ducting or where the outlet ducting is likely to produce large amounts of condensation because of high soil moisture or outlet duct material. Schedule 20 piping and other thin-walled plastic ducting and Aluminum downspout will normally produce much more condensation than Schedule 40 piping.

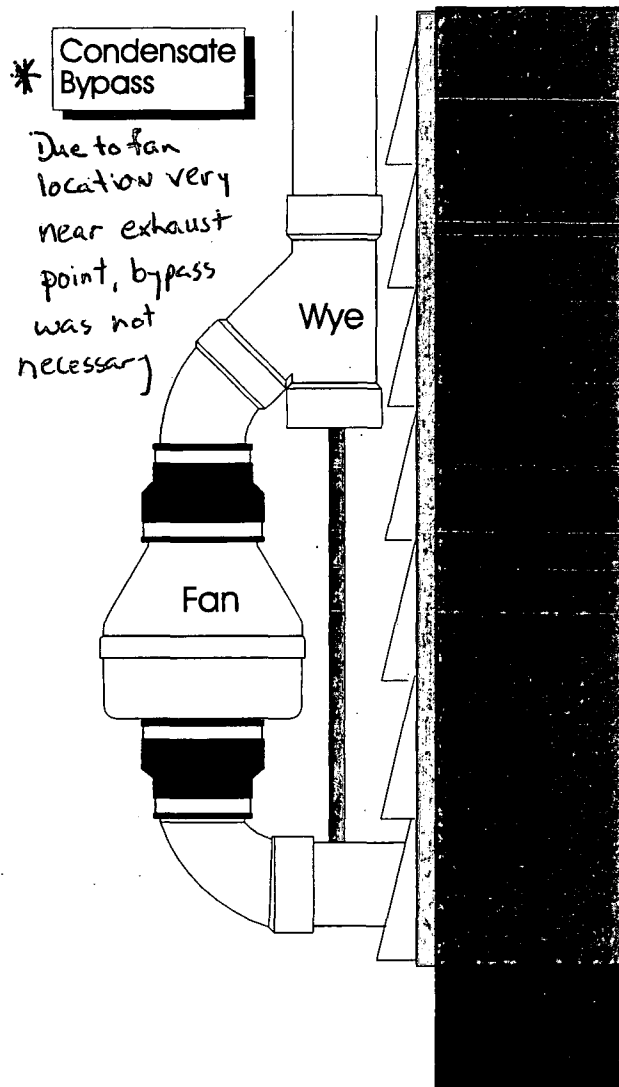
The bypass is constructed with a 45 degree Wye fitting at the bottom of the outlet stack. The bottom of the Wye is capped and fitted with a tube that connects to the inlet piping or other drain. The condensation produced in the outlet stack is collected in the Wye fitting and drained through the bypass tube. The bypass tubing may be insulated to prevent freezing.

1.7 "SYSTEM ON" INDICATOR

A properly designed system should incorporate a "System On" Indicator for affirmation of system operation. A manometer, such as a U-Tube, or a vacuum alarm is recommended for this purpose.

1.8 ELECTRICAL WIRING

The GP/XP/XR Series Fans operate on standard 120V 60 Hz. AC. All wiring must be performed in accordance with the National Fire Protection



Association's (NFPA)"National Electrical Code, Standard #70"-current edition for all commercial and industrial work, and state and local building codes. All wiring must be performed by a qualified and licensed electrician. Outdoor installations require the use of a U.L. listed watertight conduit.

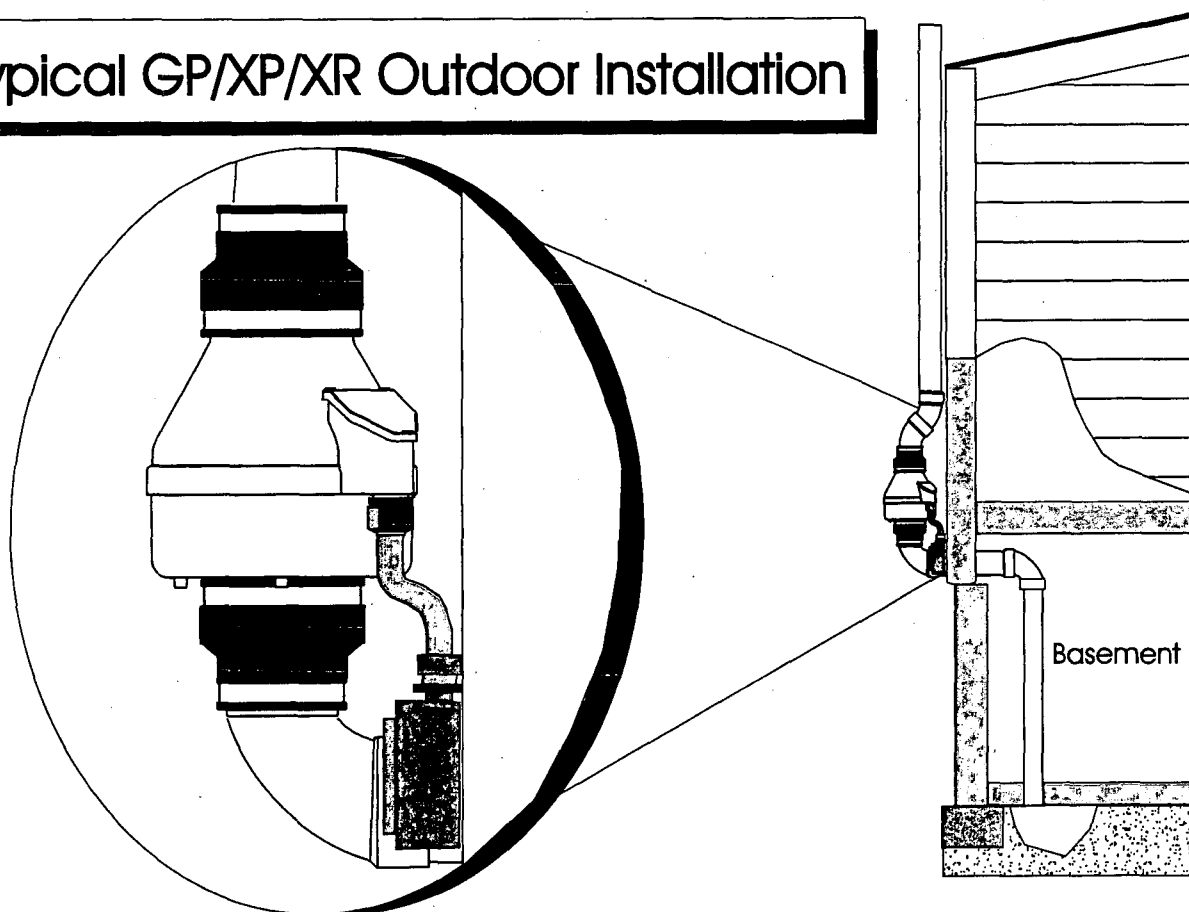
1.9 SPEED CONTROLS

The GP/XP/XR Series Fans are rated for use with electronic speed controls ,however, they are generally not recommended.

2.0 INSTALLATION

The GP/XP/XR Series Fan can be mounted indoors or outdoors. (It is suggested that EPA recommendations be followed in choosing the fan location.) The GP/XP/XR Series Fan may be mounted directly on the system piping or fastened to a supporting structure by means of optional mounting bracket.

Typical GP/XP/XR Outdoor Installation



2.1 MOUNTING

Mount the GP/XP/XR Series Fan vertically with outlet up. Insure the unit is plumb and level. When mounting directly on the system piping assure that the fan does not contact any building surface to avoid vibration noise.

2.2 MOUNTING BRACKET (optional)

The GP/XP/XR Series fan may be optionally secured with the integral mounting bracket on the GP Series fan or with RadonAway P/N 25007-2 mounting bracket for an XP/XR Series fan. Foam or rubber grommets may also be used between the bracket and mounting surface for vibration isolation.

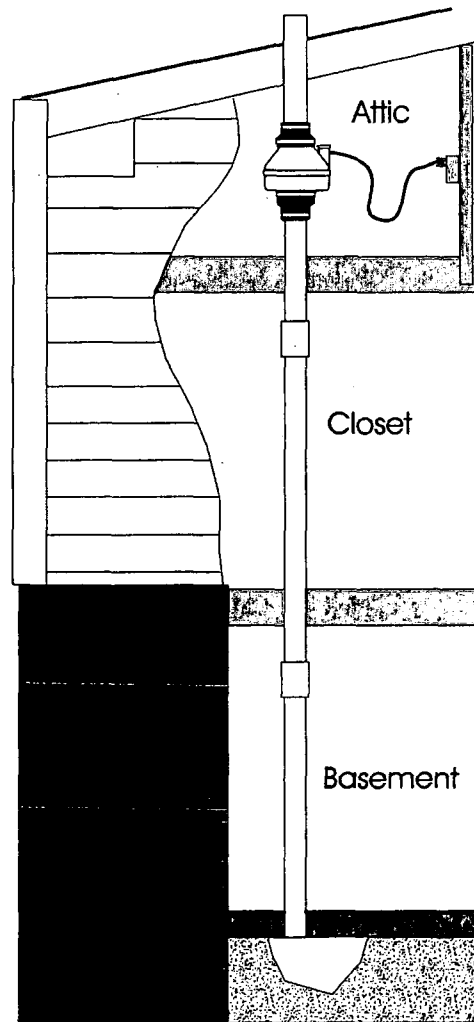
2.3 SYSTEM PIPING

Complete piping run, using flexible couplings as means of disconnect for servicing the unit and vibration isolation.

2.4 ELECTRICAL CONNECTION

Connect wiring with wire nuts provided, observing proper connections:

Fan Wire	Connection
Green	Ground
Black	AC Hot
White	AC Common



2.5 VENT MUFLER (optional)

Install the muffler assembly in the selected location in the outlet ducting. Solvent weld all connections. The muffler is normally installed at the end of the vent pipe.

2.6 OPERATION CHECKS

- _____ Verify all connections are tight and leak-free.
- _____ Insure the GP/XP/XR Series Fan and all ducting is secure and vibration-free.
- _____ Verify system vacuum pressure with manometer. Insure vacuum pressure is less than maximum recommended operating pressure
(Based on sea-level operation, at higher altitudes reduce by about 4% per 1000 Feet.)
(Further reduce Maximum Operating Pressure by 10% for High Temperature environments)
See Product Specifications. If this is exceeded, increase the number of suction points.
- _____ Verify Radon levels by testing to EPA protocol.

GP SERIES PRODUCT SPECIFICATIONS

The following chart shows fan performance for the GPx01 Series Fan:

	1.0"	Typical CFM Vs Static Suction "WC					
		1.5"	2.0"	2.5"	3.0"	3.5"	4.0"
* GP501	95	87	80	70	57	30	5
GP401	93	82	60	38	12	-	-
GP301	92	77	45	10	-	-	-
GP201	82	58	5	-	-	-	-

Maximum Recommended Operating Pressure*		
* GP501	3.8" W.C.	(Sea Level Operation)**
GP401	3.0" W.C.	(Sea Level Operation)**
GP301	2.4" W.C.	(Sea Level Operation)**
GP201	1.8" W.C.	(Sea Level Operation)**

*Reduce by 10% for High Temperature Operation

**Reduce by 4% per 1000 feet of altitude

Power Consumption @ 120 VAC	
* GP501	70 - 140 watts
GP401	60 - 110 watts
GP301	55 - 90 watts
GP201	40 - 60 watts

Inlet/Outlet: 3.5" OD (3.0" PVC Sched 40 size compatible)

Mounting: Fan may be mounted on the duct pipe or with integral flanges.

Weight: 12 lbs.

Size: 13H" x 12.5" x 12.5"

Recommended ducting: 3" or 4" Schedule 20/40 PVC Pipe

Storage temperature range: 32 - 100 degrees F.

Normal operating temperature range: -20 - 120 degrees F.

Maximum inlet air temperature: 80 degrees F.

Continuous Duty

Class B Insulation

3000 RPM

Thermally protected

Rated for Indoor or Outdoor Use

GP301C / GP501C Rated for Commercial Use

LISTED
Electric Fan



Tested to
UL
Std. 507

77728

IMPORTANT INSTRUCTIONS TO INSTALLER

Inspect the GPx01/XP/XR Series Fan for shipping damage within 15 days of receipt. Notify RadonAway of any damages immediately. RadonAway is not responsible for damages incurred during shipping. However, for your benefit, RadonAway does insure shipments.

There are no user serviceable parts inside the fan. Do not attempt to open. Return unit to factory for service.

Install the GPx01/XP/XR Series Fan in accordance with all EPA standard practices, and state and local building codes and state regulations.

WARRANTY

Subject to any applicable consumer protection legislation, RadonAway warrants that the GPX01/XP/XR/RP Series Fan (the "Fan") will be free from defects in materials and workmanship for a period of 90 days from the date of purchase (the "Warranty Term").

RadonAway will replace any Fan which fails due to defects in materials or workmanship. The Fan must be returned (at Owner's cost) to the RadonAway factory. Any Fan returned to the factory will be discarded unless the Owner provides specific instructions along with the Fan when it is returned regardless of whether or not the Fan is actually replaced under this warranty. Proof of purchase must be supplied upon request for service under this Warranty.

This Warranty is contingent on installation of the Fan in accordance with the instructions provided. This Warranty does not apply where any repairs or alterations have been made or attempted by others, or if the unit has been abused or misused. Warranty does not cover damage in shipment unless the damage is due to the negligence of RadonAway.

5 YEAR EXTENDED WARRANTY WITH PROFESSIONAL INSTALLATION

RadonAway will extend the Warranty Term of the fan to 5 years from date of manufacture if the Fan is installed in a professionally designed and professionally installed radon system or installed as a replacement fan in a professionally designed and professionally installed radon system. Proof of purchase and/or proof of professional installation may be required for service under this warranty. Outside the Continental United States and Canada the extended Warranty Term is limited to one (1) year from the date of manufacture.

RadonAway is not responsible for installation, removal or delivery costs associated with this Warranty.

EXCEPT AS STATED ABOVE, THE GPx01/XP/XR/RP SERIES FANS ARE PROVIDED WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING, WITHOUT LIMITATION, IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

IN NO EVENT SHALL RADONAWAY BE LIABLE FOR ANY DIRECT, INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES ARISING OUT OF, OR RELATING TO, THE FAN OR THE PERFORMANCE THEREOF. RADONAWAY'S AGGREGATE LIABILITY HEREUNDER SHALL NOT IN ANY EVENT EXCEED THE AMOUNT OF THE PURCHASE PRICE OF SAID PRODUCT. THE SOLE AND EXCLUSIVE REMEDY UNDER THIS WARRANTY SHALL BE THE REPAIR OR REPLACEMENT OF THE PRODUCT, TO THE EXTENT THE SAME DOES NOT MEET WITH RADONAWAY'S WARRANTY AS PROVIDED ABOVE.

For service under this Warranty, contact RadonAway for a Return Material Authorization (RMA) number and shipping information. No returns can be accepted without an RMA. If factory return is required, the customer assumes all shipping cost to and from factory.

RadonAway
3 Saber Way
Ward Hill, MA 01835
TEL. (978) 521-3703
FAX (978) 521-3964

Record the following information for your records:

Serial No. _____
Purchase Date _____

ATTACHMENT

3

RESULTS OF POST TREATMENT VACUUM TESTING AT 20 WELCHER AVENUE, PEEKSKILL, NEW YORK

All results are reported in inches of water column

TEST POINT 1 -0.055 INCHES OF WATER COLUMN

TEST POINT 2 -0.223 INCHES OF WATER COLUMN

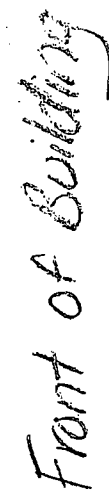
TEST POINT 3 -0.131 INCHES OF WATER COLUMN

TEST POINT 4 -0.101 INCHES OF WATER COLUMN

All measurements were taken using a Dwyer Digital Micromanometer capable of measuring to -0.000 inches of water column.

New York State Department of Health suggests an induced vacuum of -0.004 inches of water column or 1 Pascal be the goal of a successful ASDS installation

VACUUM TEST POINT LOCATIONS



Drawing Not to Scale

ATTACHMENT

4

**PERMIT APPLICATION HAS BEEN
MADE (ATTACHED). PICK-UP AND
DISPOSAL IS PENDING U.S.E.P.A
DISPOSAL NUMBER. MANIFEST
WILL FOLLOW UNDER A SEPARATE
COVER**



RAdata

27 Ironia Road, Unit 2
Flanders, New Jersey 07836
973-927-7303 973-927-4980 fax
1-800-447-2366

January 3, 2011

**USEPA Region 2
DEPP-RCRA Programs Branch
Attn: RCRA Notifications
290 Broadway, 22nd Floor
New York, NY 10007-1866**

**Re: RCRA Subtitle C Site Identification Form
Site Location: 20 Welcher Ave, Peekskill, NY**

Dear DEPP-RCRA Programs Branch:

Please find enclosed our application to request an EPA ID Number for the removal of the contaminated soil at the above site.

Please contact me at my office when you are ready to issue to the ID Number. I will be coordinating the removal.

Please feel free to contact us with any questions.

Thank you,

**Lisa Francis
Mitigation Department**

c: file

SEND COMPLETED FORM TO: The Appropriate State or Regional Office.	United States Environmental Protection Agency RCRA SUBTITLE C SITE IDENTIFICATION FORM		
1. Reason for Submittal MARK ALL BOX(ES) THAT APPLY	Reason for Submittal: ☒ To provide an Initial Notification (first time submitting site Identification information / to obtain an EPA ID number for this location) ☐ To provide a Subsequent Notification (to update site Identification information for this location) ☐ As a component of a First RCRA Hazardous Waste Part A Permit Application ☐ As a component of a Revised RCRA Hazardous Waste Part A Permit Application (Amendment # _____) ☐ As a component of the Hazardous Waste Report (If marked, see sub-bullet below) ☐ Site was a TSD facility and/or generator of $\geq 1,000$ kg of hazardous waste, > 1 kg of acute hazardous waste, or > 100 kg of acute hazardous waste spill cleanup in one or more months of the report year (or State equivalent LQG regulations)		
2. Site EPA ID Number	EPA ID Number 		
3. Site Name	Name: <u>Bushy Mountain Shopping Center</u>		
4. Site Location Information	Street Address: <u>20 Welcher Avenue</u> City, Town, or Village: <u>Peekskill</u> County: <u>Weschester</u> State: <u>New York</u> Country: <u>United States</u> Zip Code: <u>10566</u>		
5. Site Land Type	☒ Private ☐ County ☐ District ☐ Federal ☐ Tribal ☐ Municipal ☐ State ☐ Other		
6. NAICS Code(s) for the Site (at least 6-digit codes)	A. 4 4 5 1 1 1 B. 4 4 6 1 1 1 C. 4 5 3 1 1 1 D. 4 5 3 9 9 1		
7. Site Mailing Address	Street or P.O. Box: <u>20 Welcher Avenue</u> City, Town, or Village: <u>Peekskill</u> New York State: <u>New York</u> Country: <u>United States</u> Zip Code: <u>10566</u>		
8. Site Contact Person	First Name: <u>Fred</u> MI: <u> </u> Last: <u>Schwab</u> Title: <u>Manager</u> Street or P.O. Box: <u>P.O. Box 383</u> City, Town or Village: <u>Croton-On-Hudson</u> State: <u>New York</u> Country: <u>US</u> Zip Code: <u>10520</u> Email: <u>jfschwab@aol.com</u> Phone: <u>914-271-5706</u> Ext.: <u> </u> Fax: <u> </u>		
9. Legal Owner and Operator of the Site	A. Name of Site's Legal Owner: <u>KURTSMAN REALTY CO.</u> Date Became Owner: <u>3/3/1986</u> Owner Type: ☒ Private ☐ County ☐ District ☐ Federal ☐ Tribal ☐ Municipal ☐ State ☐ Other Street or P.O. Box: <u>P.O. Box 383</u> City, Town, or Village: <u>Croton-On-Hudson</u> Phone: <u>914-271-5706</u> State: <u>New York</u> Country: <u>US</u> Zip Code: <u>10520</u> B. Name of Site's Operator: <u>Kurtzman Realty</u> Date Became Operator: <u>3/3/1986</u> Operator Type: ☒ Private ☐ County ☐ District ☐ Federal ☐ Tribal ☐ Municipal ☐ State ☐ Other		

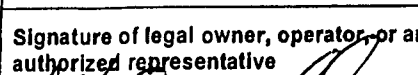
12. Notification of Hazardous Secondary Material (HSM) Activity

Y ☐ N ☐ Are you notifying under 40 CFR 260.42 that you will begin managing, are managing, or will stop managing hazardous secondary material under 40 CFR 261.2(a)(2)(ii), 40 CFR 261.4(a)(23), (24), or (25)?

If "Yes", you must fill out the Addendum to the Site Identification Form: Notification for Managing Hazardous Secondary Material.

13. Comments

14. **Certification.** I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations. For the RCRA Hazardous Waste Part A Permit Application, all owner(s) and operator(s) must sign (see 40 CFR 270.10(b) and 270.11).

Signature of legal owner, operator, or an authorized representative	Name and Official Title (type or print)	Date Signed (mm/dd/yyyy)
	Fred Schuch, Manager	12/12/10

❖ You must check with your State to determine if you are eligible to manage laboratory hazardous wastes pursuant to 40 CFR Part 262 Subpart K

- ☒ 2. Withdrawing from 40 CFR Part 262 Subpart K for the management of hazardous wastes in laboratories

A. **Waste Codes for Federally Regulated Hazardous Wastes.** Please list the waste codes of the Federal hazardous wastes handled at your site. List them in the order they are presented in the regulations (e.g., D001, D003, F007, U112). Use an additional page if more spaces are needed.

[illegible][illegible]

ATTACHMENT

5



RAdata, Inc.

27 Ironia Road, Unit 2
Flanders, New Jersey 07836
973-927-7303 973-927-4980 fax

1-800-447-2366

URGENT!

10/4/2010

TO: Kurtsam Realty or Current Resident
Attention: Fred Schwalb
Box 383 Quaker Ridge Road
Croton-On-Hudson NY 10520

PROPERTY: Blue Mountain Plaza
20 Welcher Avenue
Peekskill NY 10566

Enclosed are the permits from the local municipality for the system installed at the above property. At this point it is mandatory for you to contact your municipality, give them your permit number (located at the top right side of your permits) and schedule a final inspection (a final inspection is required for each permit application). The number(s) you will need are listed below. Once the final inspection is completed, you must phone our office so that we can close out your file. If you have any questions, please phone our office. This must be completed within 30 days.

- x Building Inspection, please call 914-734-4140
- x Electric Inspection, please call

****Failure to complete these inspections could result in the following complications:****

- 1.) Loss of Radon reduction warranty.
- 2.) Up to \$500.00 in fines.
- 3.) Charge back of fines and penalties assessed to our firm.
- 4.) Lien placed on title of property.
- 5.) Inability to transfer title until inspection is complete.

Thank you,
David Grammer, President

*Inspection
done
10/21/10
passed*

TO BE KEPT ON THE WORK

CITY OF PEEKSKILL
DEPARTMENT OF PUBLIC WORKS
BUILDING DEPT.
Municipal Building, Peekskill, N.Y.

11601

PERMIT

Fee 190⁰⁰

Permission is hereby granted to install soil depressurization system (radon)
Location 20 Welchen Avenue (KARATE STUDIO)
Owner HUNTSMAN REALTY Address 323 Quaker Ridge Road
CRISTON HILLS ROAD NY
Contractor RA DATA INC. Address 27 IRONIA Rd, Flanders N.J. 07834
Dimensions (overall) 40' x 40' approx Materials CONVENTIONAL

Foundations { Thickness below grade Materials below grade
Thickness above grade Materials above grade

Footings: Dimensions Depth below grade ft. in.

Thickness of { Outside Walls 1st 2nd 3rd 4th 5th 6th
Division Walls

Stories High Distance from Street line

Kind of Roof Material of Roof

Size of joists 1st 2nd 3rd 4th 5th 6th

Special Conditions SUBJECT TO NOTES OR PLANS, FIELD INSPECTIONS, ETC. CERTIFICATE

Date of issue Sept 30 20 10 Expiration date Sept 30 20 11

Director of Public Works



This permit is granted upon the express condition that every person acting under same shall conform to the representations of the application thereof as well as all Building, Zoning and other Ordinances of the City of Peekskill and Statutes of this State. This permit must be kept on the work to which it applies at all times during working hours, and may be revoked at any time for a breach of its conditions.

ATTACHMENT

6

GENERAL HEALTH AND SAFETY PLAN

for

**KURTSAM REALTY
20 WELCHER AVENUE
PEEKSKILL, NY**

October 19, 2010

Prepared by:

Gary P. Schwartz

PHASE Associates, LLC

316 Eisenhower Pkwy

Livingston, New Jersey 07039

***Gary P. Schwartz*, CIH, CSP, CMC**

Signature of Preparer

RAdata, Inc.

27 Ironia Road

Flanders, NJ 07836

973-927-7303

800-447-2366

973-927-8221(f)

HASP-Kurtsam Realty

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PROJECT IDENTIFICATION

PROJECT NUMBER: _____

PROJECT NAME: Installation of Active Soil Depressurization Systems

LOCATION/ADDRESS: 20 Welcher Avenue, Peekskill, NY

PROJECT MANAGER: Blair B. Miers, RAdata, Inc.

SAFETY MANAGER: David Grammer, RAdata, Inc.

The purpose of this Health and Safety Plan (HASP) is to identify, evaluate and control radiation and chemical health and safety hazards, and to provide for emergency response during field activities. All employees of RAdat, Inc., (RAdat) as well as its contractors and subcontractors who have agreed to abide by this, and who are involved in field activities on this project, will be bound by these provisions. Contractors and subcontractors who abide by this HASP, but whose work activities are not covered by this HASP must develop and follow their own site specific HASP.

RAdat's Company's HASP is based on a general review and evaluation of potential hazards and risks regarding most projects. It outlines the health and safety procedures, and the equipment required, needed to minimize the potential for harm to field personnel and site visitors. A separate site-specific HASP will be required for each project. This is because work activities, site conditions and exposures to various combinations of contaminants present are variable.

2.1 SITE DESCRIPTION & HISTORY

This project is occurring at 20 Welcher Avenue in Peekskill, NY.

2.2 KEY PERSONNEL

2.1.1 Responsible Person of HASP: David Grammer, President or his designee

This person will have the following responsibilities:

- To provide the Health and Safety Officer with project-related health and safety information to keep this document updated.
- To implement the HASP.
- To monitor compliance with the HASP.

2.1.2 Health and Safety Officer: Blair Miers

The Health and Safety Officer has the following responsibilities:

- To monitor compliance with the HASP.
- To assist in complying with the terms of this HASP, and applicable regulations.

The Health and Safety Officer has the authority to take the following actions:

- To suspend work or otherwise limit personnel exposure if this HASP appears to be unsuitable or inadequate.
- To direct personnel to modify any work practices that are deemed to be hazardous to health and safety.
- To remove field personnel from the project if their physical actions or mental condition endangers their own health and safety, or that of their coworkers.

3.1 PERSONNEL MEDICAL CLEARANCE

Prior to working at any site, RAdata assigned employees must: 1) be certified by a licensed, RAdata-approved physician as being physically able to perform their assigned field work, and to use the Personal Protective Equipment (PPE) which may be required for this project, in accordance with the provisions of OSHA Regulation 29 CFR 1910.120(f)(2) have successfully completed an 40-hour basic health and safety training course (Level C) for field personnel or its equivalent, and 3) passed a Quantitative Respirator Fit Test. Site managers and supervisors must have successfully completed an 8-hour managers' health and safety course, in addition to the other clearance requirements.

RAdata subcontractor employees must also have similar medical, training, and respirator fit clearances and they will be required to provide proof of clearance before beginning work.

3.2 HAZARD TRAINING

All personnel working on-site who have potential exposures to health or safety hazards shall be thoroughly trained as specified in OSHA Regulations 29 CFR 1910.120(e). This training will include: (1) Attendance at an initial Respiratory Protection Course; (2) Seal checked and Fit tested through an acceptable OSHA quantitative fit test method. All personnel should have successfully completed the 40 hour Hazardous Waste Operations and Emergency Response course and annual 8 hour refresher courses.

In addition to the above, all RAdata personnel should be versed on the company's safety and health program and employee training program; personal protective equipment program; spill containment program; air quality monitoring (by Bell Environmental); emergency response; monitoring equipment usage and calibration; and, health hazard monitoring procedures and techniques.

At the time of job assignment, special training will be provided to on-site personnel who may be exposed to unique or special hazards. If unique or special hazards are unexpectedly encountered, specialized training will be provided before work proceeds.

3.3 INCIDENT REPORTING

A Health & Safety Incident Report will be filed for any incident involving personnel working at a Site. Situations covered by this policy include, but are not limited to, inhalation, hand or eye injuries. Worker's Compensation Insurance reports for RAdata employees must be filed within 48 hours of each incident or illness which results from work-related activities and requires medical attention.

3.4 ILLUMINATION, SANITATION AND CONFINED SPACE ENTRY

3.4.1 Illumination

If the project work is expected to occur inside the building, the illumination requirements set forth by OSHA Regulations 29 CFR 1910.120 (m) will be met.

3.4.2 Sanitation

The sanitation requirements regarding potable and non-potable waters, toilet facilities and washing facilities will be followed as set forth in OSHA Regulations 29 CFR 1910.120(n).

3.4.3 Confined Space Entry

Confined Space Entries are not anticipated since personnel will not be entering the drill pipe chase or network.

3.5 RESPIRATOR MAINTENANCE, FITTING AND DECONTAMINATION

Respirators will be cleaned daily according to procedures described below. Cartridges will be replaced either daily or if breakthrough is detected at any time while in use. The following checks will be performed daily, in addition to the above:

- Exhalation valve - pull off plastic cover and check valve for debris or for tears in the neoprene valve, which could cause leakage.
- Inhalation valves - screw off both cartridges and visually inspect neoprene valves for tears. Make sure that the inhalation valves and cartridge receptacle gaskets are in place.
- Make sure a protective lens cover is in place.
- Make sure you have the correct cartridges.
- Make sure that the face piece harness is not damaged. The serrated portion of the harness can fragment which will prevent proper face seal adjustment.
- Make sure the speaking diaphragm retainer ring is hand tight.

NOTE: The respirator MUST be Leak-Tested before each use.

Test the respirator for leakage by using both the positive- and the negative-pressure method. Lightly place your palm over the exhalation valve cover. Exhale gently. The body of the respirator should bulge slightly outward from your face. If any leakage is detected around the face seal, readjust the head harness straps and repeat the test until there is no leakage. If leakage is detected other than in the face seal, the condition must be investigated and corrected before another test is made. The negative pressure test must also be made. Lightly place your palms or some impervious material, like Saran Wrap® over the cartridges or filter holders. Inhale gently. The face-piece should collapse against the face. The respirator must pass these two tightness tests before the respirator is used. The respirator will not furnish protection unless all inhaled air is drawn through suitable cartridges or filters. **NOTE: Respirators provide no protection in oxygen-deficient atmospheres!**

After use, follow these steps to clean your respirator:

- Wash with Alconox® solution and brush gently. (This step will remove any soil/solid particulate matter that may have been collected on the respirator during field activities.)
- Rinse with distilled/de-ionized water, making sure that the inhalation and exhalation valves are clean and unobstructed.
- Wipe with sanitizing solution. (This step will assure the sterility of the respirator.)
- Allow your respirator to air dry.
- Place the respirator inside a sealed bag or a clean area away from extreme heat or extreme cold.

3.6 PROJECT MANAGER NOTIFICATION

All field personnel must inform the Project Manager before entering a building Site.

IF ANY PREVIOUSLY UNIDENTIFIED POTENTIAL HAZARDS ARE DISCOVERED DURING ANY FIELD WORK, LEAVE THAT AREA OF THE SITE IMMEDIATELY AND CONTACT THE PROJECT MANAGER FOR FURTHER INSTRUCTIONS.

3.7 OSHA INFORMATION AND STATE WAGE AND INFORMATION POSTERS

In accordance with the Occupational Safety and Health Act of 1970, a copy of the OSHA information poster must be present at the Site. It will be posted at full size (11" x 17") in a permanent structure or temporary field office, or be distributed to on-site personnel by way of this HASP. Appropriate state of New Jersey wage and employment posters will also be posted in accordance with state laws.

3.8 PROHIBITIONS

Smoking, eating, drinking, chewing tobacco or toothpicks, applying cosmetics, storing food or food containers, and having open fires will be permitted only in designated areas that will be established by the Project Manager. Under no circumstances will any of the above activities be permitted within the Exclusion or Contamination Reduction Zones. Good personal hygiene should be practiced by field personnel to avoid ingesting contaminants.

3.9 INITIAL SITE SAFETY MEETING AND SIGNING THE HEALTH AND SAFETY PLAN COMPLIANCE AGREEMENT

The project manager will hold an initial site safety meeting with RAdat, subcontractor and contractor field personnel before work activities begin at any Site. At this meeting, it will be verified that all personnel have been provided with or have reviewed a HASP for the work activities to be performed at a Site. For RAdat personnel, its subcontractor's personnel, and contractor personnel whose employer(s) have adopted this HASP, the HASP shall be reviewed, discussed and questions will be answered. Signed Health and Safety Plan Compliance

Agreement Forms of personnel who will be following this HASP will be collected by the project manager and filed. Individuals refusing to sign the Form will not be allowed to work on the Site.

3.10 DAILY SITE SAFETY BRIEFINGS

During field operations, site safety briefings will be held at the start of each day by the project manager to review and plan specific health and safety aspects of scheduled work. All field personnel who are following this HASP are required to attend these briefings. These meetings and their content shall be documented by the Project Manager. Potential subjects that may be discussed are presented below:

1. Preliminary
 - Medical clearances.
 - Training requirements.
 - Written HASP availability.
 - Designation of responsibilities for on-site personnel.
 - Identification of on-site personnel trained and certified to administer First Aid.

2. Training topics

Review of site specific HASP including: types of hazards; pathways of exposure; levels of protection; contamination avoidance; prohibitions; work procedures; confined space entry; work zones; emergency response procedures; and, specific on-site area/work tasks of concern.

Decontamination.

Personnel Protective Equipment.

Air Quality Monitoring Program.

Questions and Answers

3.11 UNDERGROUND STRUCTURES

Caution will be exercised whenever the possibility of encountering subsurface obstructions exists. Before beginning intrusive activities, all available sources of information (such as site utility drawings, public utility drawings, construction drawings, and discussions with former employees) will be reviewed. If underground obstructions are unexpectedly encountered, the area will be excavated using manual equipment until the nature of the obstruction is discerned.

SECTION 4.0
HAZARD ASSESSMENT

An assessment of the known or suspected chemical and physical hazards have been made for each of the activities specified below.

4.1 APPROVED WORK ACTIVITIES

Work activities which may be performed under this HASP are limited to the following:
This HASP does not cover any site activities. These would be found in the project site specific HASPs.

4.2 HAZARDS

4.2.1 Chemical Agents

Ensure that all specific chemical hazards be identified and in concentrations in excess of the NJDEP Indoor Air Screening Level are reviewed. A full listing of chemicals, current through August 2006 is found in Attachment A, while the chemicals found on-site are listed below.

**TABLE 4.2.1 SUMMARY DATA FOR CONTAMINANT CONCENTRATION IN
EXCESS OF THE NJDEP INDOOR AIR SCREENING LEVEL**

Contaminant Of Concern	CAS #	OSHA PEL (TWA)	IDLH	Flam- mable?	Carcin- ogen?	Residential Health-based Values	Nonresidential Health-based Values

4.2.1.1 Chemical Exposure Evaluation Criteria

For chemical agents, the primary sources of environmental evaluation criteria for the workplace are: (1) NIOSH Recommended Exposure Limits (RELs), (2) the American Conference of Governmental Industrial Hygienists' (ACGIH®) Threshold Limit Values (TLVs®) and (3) the U.S. Department of Labor, Occupational Safety and Health Administration (OSHA) Permissible Exposure Limits (PELs).

Contaminants usually enter the body through the mouth (ingestion), the lung (inhalation) or by absorption through the skin and mucous membranes. Chemical exposure through these routes will be controlled by limiting eating, drinking, and smoking to uncontaminated areas; through the use of hygiene practices and decontamination procedures; and by the use of appropriate engineering controls and personal protective equipment (PPE).

There are four levels of personal protection (Levels A, B, C, and D), according to the degree of protection they afford, with Level A providing the greatest degree of protection. The initial level of personal protective equipment to be used while performing activities at a Site will be based on the hazard assessment performed for the project.

Level D will be used while performing activities at a site unless results of initial Photoionization Detector (PID) results show elevated VOC and/or radon gas airborne values. The building should be placed under positive ventilation to dilute the elevated airborne VOC and radon emissions. If this fails to lower the airborne VOCs and/or radon, then personnel must don for level C protection.

4.2.2 Ionizing Radiation and Radioactive Agents

As a guide to the evaluation of the hazards posed by workplace exposures, NIOSH field staff use environmental evaluation criteria to assess a number of chemical and physical agents. For physical agents such as ionizing radiation, the primary sources of environmental evaluation criteria for the workplace are: (1) the National Council on Radiation Protection and Measurements (NCRP) limits of exposure to ionizing radiation (2) the International Commission on Radiological Protection (ICRP) limits of exposure to ionizing radiation, (3) the U.S. Department of Labor, OSHA PELs (4) the U.S. Department of Energy (DOE) standards for external and internal exposure, (5) the U.S. Nuclear Regulatory Commission (NRC) occupational dose limits (6) the U.S. Environmental Protection Agency (EPA) federal radiation protection guidance for occupational exposure (6) the Food and Drug Administration (FDA) performance standards for ionizing radiation emitting products (7) the U.S. Department of Transportation (DOT) radiation limits for Transportation of radioactive materials (8) the International Air Transportation Association (IATA) radiation protection and quality assurance programs and (9) the International Atomic Energy Agency (IAEA) occupational radiation protection safety standards.

Natural radiation background exposure varies around the world from less than 0.005 mR/hr to more than 2.5 mR/hr¹⁹, producing an annual dose of about 40 millirem (mrem) to 22,000 mrem, respectively. The greatest dose is due to anomalous, localized deposits of NORM. Variations in the natural radiation a 1 pCi/L = 37 Becquerel per cubic meters (Bq/m³)
b A millirem is a unit of measure of ionizing radiation exposure of living tissues that takes into account the differences in biological harm (Relative Biological Effectiveness [RBE factor]) caused by different types of ionizing radiation.

The average annual background dose in the United States has been reported to be about 360 mrem. Radon exposure is responsible for about 55% of background dose (about 200 mrem) and is greater where the presence of NORM material (uranium and thorium) is elevated. Cosmic radiation produces an annual dose of 27 mrem (8%) and terrestrial radiation from NORM in the crust of the earth accounts for 28 mrem (8%). Radiation exposure from internally deposited radioactive material, mainly potassium-40, delivers about 39 mrem (11%) to each person. Medical and other manmade sources of radiation exposure (including consumer products) account for about 63 mrem (18%). Other industrial sources of radiation exposure account for only 3 mrem (0.3%) and include the nuclear fuel cycle, fallout, and artificial sources.

Important forms of ionizing radiation include the alpha and beta particles and gamma rays emitted from radioactive materials. These are called ionizing radiation because they can remove (knock) electrons out of atoms and molecules, creating electrically charged particles called ions. This ionization process transfers energy from the radiation to the irradiated material, and can cause chemical and physical changes in human tissue. The various types of ionizing radiation differ widely in their abilities to penetrate tissue and deposit energy. Alpha particles travel only a very short distance (less than 1 mm) in living tissue and thus cannot

penetrate the skin. These particles are present with radon and two of the radon decay products. Beta particles are identical to electrons, are thousands of times smaller than alpha particles, and can penetrate deeper into tissue. However, they are easily stopped by a thin sheet of metal foil. Gamma rays have no mass or electrical charge, and travel much greater distances than either alpha or beta particles. This means their energy is deposited over a longer path and is relatively unlikely to damage living tissue unless the exposure rate is high.

4.2.3 Radium

Radium, formed upon the radioactive decay of uranium and thorium, is a naturally occurring silvery-white radioactive metal that can exist in several forms called isotopes. Two of the main radium isotopes found in the environment are ²²⁶Ra (uranium decay series; Appendix I) and radium-228 (²²⁸Ra, thorium decay series). Historically, radium has been used as a radiation source for treating cancer and in radiography of metals. It has been combined with other metals as a neutron source for research and radiation instrument calibration. Radium was also a component of luminous paints used for watch and clock dials, aircraft instrument panels, military instruments, and compasses. The EPA has set a drinking water limit of 5 pCi/L for ²²⁶Ra and ²²⁸Ra (combined).

4.2.4 Radon in Air

Radon is a colorless, odorless, tasteless, radioactive gas formed from the radioactive decay of radium in the uranium decay chain. Uranium and radium are found around the world in soil, rocks, and water at various concentrations. Because radon is a gas, it may escape into the air from the material in which it is formed; therefore radon gas is ubiquitous outdoors as well as indoors. High concentrations of radon can accumulate in poorly ventilated indoor locations or when a large amount of ²²⁶Ra is present. Radon decays with a half-life of about 4 days into a series of solid, short-lived radioisotopes commonly called radon daughters or progeny. Two progeny, polonium-218 and polonium-214, emit alpha particles and are responsible for most of the health effects associated with inhalation of radon and its decay products.

4.2.5 Airborne Radioactivity Government standards and Guideline Exposure Levels

1 WLM / year (2040 hrs per year)

0.083 WLM (170 hrs)

NIOSH Recommended Exposure 0.083 WL (average concentration per work shift)

Limits 20.8 pCi/L (40% Equilibrium Factor; EF)

16.6 pCi/L (50% EF)

8.3 pCi/L (100% EF)

100 pCi/L (40 hr work week)

OSHA Permissible Exposure

Limits (1971 regulation) 25 pCi/L (posting requirement for airborne radioactivity)

3 pCi/L (40 hr work week for workers less than 18 yrs old)

NRC Occupational Exposure 30 pCi/L (yearly avg); Derived Air Concentration

Limits 3 pCi/L (yearly average for workers less than 18 yrs old)

EPA Recommended Public Limit 4 pCi/L (non-occupational action limit to initiate remediation efforts)

IAEA Recommended 4 WLM

Occupational Dose Limits* 32.4 pCi/L (2000 hrs per year; 40% EF)

WLM = Working Level Months pCi/L = picoCuries per liter

* The IAEA recommendations correspond to an annual effective dose of 2 rem (0.02 Sievert, Sv).

The major route of radon exposure is inhalation. The typical concentration range for radon in ambient air is 0.003 to 2.6 pCi/L. A typical level of radon found indoors in homes, schools, or office buildings is about 1.5 pCi/L, although much higher concentrations (> 200 pCi/L) have been measured. Persons who work with uranium and phosphate fertilizers, persons living near uranium mines and processing facilities, and persons handling fossils and other artifacts rich in uranium or radium have a greater chance of being exposed to higher levels of uranium, radium, and radon than the general population.

4.2.6 OSHA Interpretation of Radon in the Workplace

In December 2002, OSHA provided guidance on its regulations regarding proper interpretation of the workplace radon standards. The OSHA standard refers to airborne radioactive material exposure limits that were published by the Atomic Energy Commission (AEC) in 1969. Both the AEC and the OSHA limits were for a 40-hour exposure in any workweek of 7 consecutive days. In 1996 the OSHA standard was redesignated as 29 CFR 1910.1096, although no changes were made to the exposure limits. The Nuclear Regulatory Commission (NRC) has since changed the format of the tables in Appendix B of 10 CFR Part 20 and converted the limits to annual averages, reduced the radon exposure limits, and moved limits for miners from the table to the regulatory text.

Case law supports the interpretation that the original version of a referenced federal regulation is the enforceable regulation. Therefore, the 1969 version of Appendix B to 10 CFR Part 20 that was referenced in the original OSHA ionizing radiation standard in 1971 is enforceable. The applicable 222Ra exposure limit issued by OSHA in 1971 for adult employees is 100 pCi/L averaged over a 40-hour work week. However, many requirements of the current NRC regulation provide as much or more protection than the OSHA standard for workers exposed to airborne radioactive materials. A series of questions and answers regarding radon exposure in the workplace is provided in Appendix II.

EPA Recommendations and Action Levels for Radon

The recommendations and action levels for indoor radon provided by the EPA are not enforceable for a working environment. However, the EPA and the U.S. Surgeon General issued a Health Advisory that recommends testing all homes for radon below the third floor and testing schools nationwide for radon.

They also recommended abating homes with radon levels that are at or above 4 pCi/L, the EPA National Voluntary Action Level. This level represents a radon concentration where the cost of remediation is warranted by the risk of health effects. The EPA believes that the indoor radon concentration can be lowered to 2 pCi/L fairly simply, and encourages homeowners, home

builders, and building code organizations to construct radon-resistant homes. Radon testing is encouraged when existing homes are sold.

4.2.7 Radon in Water

The EPA is proposing new public health standards for radon in drinking water. The proposal provides two options to states and community water systems for reducing radon health risks in both drinking water and indoor air. Information about the proposed rule and information relating to the status of the rule can be found at: www.epa.gov/safewater/radon.html.

The proposed regulation provides that states may adopt Multimedia Mitigation (MMM) programs and the Alternative Maximum Contaminant Level (AMCL) in water of 4,000 pCi/L. According to the EPA, the AMCL is the most effective approach for radon risk reduction and the one the EPA expects most states to adopt. In the absence of this regulatory expectation, small (10,000 or fewer customers) Community Water Systems (CWS) are expected to comply with a level of 4,000 pCi/L in drinking water, and develop and implement a state-approved local MMM program plan to reduce indoor radon risks from soil and rock under homes and buildings. If Arkansas has an approved MMM program plan, the 4,000 pCi/L standard for radon in drinking water would be adopted to obtain primacy. Under the proposed requirements, an MMM program plan must address four criteria:

1. Public involvement in development of the MMM program plan
2. Quantitative goals for existing homes fixed and new homes built radon resistant
3. Strategies for achieving goals
4. Plan to track and report results

The CWS must monitor radon in drinking water²², and report its results to the state. If the radon level is below 300 pCi/L, the CWS will need only to continue to meet monitoring requirements and will not be covered by the requirements regarding MMM programs.

4.2.8 Health Effects from Radium and Radon Exposures

Cancer is the major health effect of concern from exposure to radium, radon, and its short-lived progeny. Oral exposure to radium is known to cause lung, bone, brain, and nasal passage tumors in humans. Inhalation exposure to radon may cause lung cancer in humans. The EPA has classified radium as a Group A, human carcinogen, but it has not classified radon for carcinogenicity. Chronic exposure to radon in humans and animals via inhalation has resulted in respiratory effects (chronic lung disease, pneumonia, fibrosis of the lung), while animal studies have reported effects on the blood and a decrease in body weight. Smokers exposed to radon are at greater risk for lung cancer (approximately 10 to 20 times) than are nonsmokers similarly exposed. No information is available on the acute (short-term) effects of radium or radon in humans. Reference material for the Radioactivity and Radiation section came from: <http://www.cdc.gov/niosh/hhe/reports/pdfs/2004-0094-2978.pdf>.

4.2.9 Physical Agents

Physical agents include noise. There is also a risk of physical injury when working with powered drills, etc. Field personnel should be able to recognize these hazards and take steps to avoid injurious contact with them.

4.3.0 Noise Exposure

HASP- KurtSam Realty

Work at any site may be conducted with high noise levels from equipment such as drills. Standards require that hearing protection be used when noise levels exceed 85 dBA, averaged over an 8-hour day. Hearing protection will be required at this site for noise exposures greater than 85 dBA for any length of time. In the absence of a noise meter, an appropriate rule of thumb is that when normal conversation is difficult to hear or understand at a distance of three feet, hearing protection is required. RAdata personnel shall have hearing protection on-site and available for use at all times.

4.3.1 Safety Hazards

Use of steel-toed work boots, safety glasses or goggles, and hard hats will be required when in an Exclusion Zone. Personnel should be aware that when PPE such as respirators, gloves, and protective clothing are worn, visibility, hearing, and manual dexterity are impaired.

4.3.2 Drilling, Pile Driving and Excavation

The hazards involved with the use of drills and excavation equipment are significant and include pinch points, entrapment in machinery, impact from moving part and improper operations. Use of hand tools, moving the rigs/equipment, and conducting required repairs can increase physical risks. Working with and around a drills can involve a high risk of serious injury or death. In order to reduce the risk, proper safety precautions must be observed at all times.

4.3.3 Odors

During the course of excavation, odorous gases may escape from the core drill areas. The Project Manager for the site will determine the most effective means of exhausting these odors.

4.3.4 Contaminated Dust

Contaminated sub-surface soils may become a source of dust. Inhaling contaminated dust may result in adverse health effects from exposure to the contaminant(s) on the dust particles.

SECTION 5.0

**AIR QUALITY MONITORING AND MEASURES
FOR THE CONTROL OF EMISSIONS**

5.1 AIR QUALITY MONITORING INSTRUMENTATION

Air quality will be measured to determine exposure potentials prior to the start of work, and at various times during the course of the project. Instruments which may be used to monitor air quality are discussed below:

- **Photoionization Detector**

The HNu Systems Model PI-101 Photoionization Detector (PID) or equivalent should be used to detect trace concentrations of certain organic gases and a few inorganic gases in the air. Methane, ethane, and the major components of air are not detected by the HNu PID. PID readings reflect total (readable) vapors in the air. PID readings must be given as "PID units", rather than "ppm". The PID detects mixtures of compounds simultaneously. PID readings do not measure concentrations of any individual compound when a mixture of compounds is present.

The PID will be calibrated twice each day (before start of work and after the conclusion of work) using an isobutylene standard (molecular weight = 56.2) for calibration. Calibrations will be logged. PID readings should be measured in the breathing zone of the most highly exposed worker (i.e., the person who is closest to the source of known or suspected contamination) at least hourly.

5.2 AIR QUALITY RESPONSE LEVELS

The Project Manager for the site will decide when to change protection levels in response to air monitoring results. He will obtain the air monitoring results from Bell Environmental.

5.3 MONITORING GUIDELINES

5.3.1 Background Organic Vapor Monitoring

The Health and Safety Officer should monitor for background PID readings. They should be taken at least twice daily: before the start, and after the conclusion of, work activities. Background levels will be taken at a location which is unaffected by on-site work. Once work at the Site begins, reselection of the original background location may be required.

5.3.2 Air Monitoring Protocol

During intrusive work activities (i.e. drilling, excavation) at least one series (series=Organic Vapor, Toxic gas, Combustible gas, and Oxygen) of readings should be taken every 30 minutes. During non-intrusive work activities, one series will be performed at the start of work, one series at some point during the work, and one near the conclusion of the work. This will be in addition to the background monitoring described in the previous section.

5.3.3 Documenting Monitoring Results

A calibration log will be kept for each of the monitoring instruments used, which describes the calibration by the Project Manager for each project.

5.4 EMISSION CONTROL MEASURES

Vapor (i.e. volatile organic compounds) or dust (i.e. concrete oil or soil contaminated particulates) emissions resulting from field operations do not usually exceed either regulatory action levels. If the action levels are significantly exceeded, measures to suppress the responsible emissions should be investigated. Appropriate measures would include cessation of operations until the exact cause of the emission is identified and corrected. Vapor control may include purging the building with fresh air to create positive pressure conditions. Ensure the pails are sealed up immediately after they are filled with concrete and/or soil. This will prevent any potential vapor and or dust release into the building. Fugitive dust emission control is always a recommended practice using water spraying. However, this is not practical if the project is inside a building.

TABLE 5-1
Air Monitoring Action Levels

Instrument Type	Measurement Reading	Level of Respiratory Protection	Cartridge Change Schedule
PID (non-methane)	Background-0.5 ppm (in breathing zone)	Level D	Change out every two weeks
PID (non-methane)	>0.5 ppm (NT above background)	Level D	Change out every two weeks
*	< 1 WLM per annum or per NJDEP criteria for radon	Level D	Change out every two weeks
PID (non-methane)	PCE/TCE confirmed at or above 0.8-25ppm	Level C Lower range is for benzene exposure at OSHA PEL at 1 ppm	8 hour or end of shift whichever is shorter
PID (non-methane)	25 to 50 ppm	Stop work consult with Project Mgr.	8 hour or end of shift whichever is shorter
*	>1 WLM per annum or per NJDEP criteria for radon	Level C-utilize positive ventilation system prevent radon infiltration	8 hour or end of shift whichever is shorter

* testing devices to be used dictated per NJDEP worker exposure criteria

NOTE: If any breakthrough is experienced in terms of odor, taste and irritation while wearing the respirator, personnel shall immediately exit the exclusion zone and report the incident to the HSM. The cartridge change schedule shall be revisited and modified as necessary.

SECTION 6.0
PERSONAL PROTECTIVE EQUIPMENT

6.1 DESCRIPTION OF LEVELS OF PROTECTION

The personal protection equipment specified in this HASP will be available to all field personnel. RAdata is required to provide the specified equipment (or its equivalent) to all of their exposed employees. The following requirements will also be met, in accordance with OSHA regulations:

Facial hair may not interfere with the proper fit of respirators;
Contact lenses will not be worn on-site; without exception.
Eyeglasses that interfere with the proper fit of full-face respirators will not be worn;
and,
No eating, drinking or smoking will be allowed in any area where respiratory protection is required.

Modified Level D Personal Protective Equipment

- Hard hat
- Safety glasses or goggles
- Steel-toed leather work boots
- Rubber overboots, steel-toed rubber boots, or disposable "booties"
- Nitrile-butadiene rubber outer gloves
- Nitrile surgical gloves (to be worn underneath outer gloves)
- Polyethylene coated Tyvek coveralls⁽¹⁾ (taped at cuffs)

Modified Level C Personal Protective Equipment

- Hard hat
- NIOSH Certified MSA Comfo Classic Half face or Advantage 3000 full face Air-Purifying Respirator with applicable chemical cartridge combined with a P-100 filter (depending on whether the airborne emissions is from VOCs and/or radon)
- Chemical resistant work boots
- Rubber overboots, steel-toed rubber boots, or disposable "booties"
- Nitrile-butadiene rubber outer gloves
- Nitrile surgical gloves (to be worn underneath outer gloves)
- Saranex impregnated Tyvek coveralls (taped at cuffs)

A first aid kit, multi-purpose dry chemical UL Class 10A-10B-C fire extinguisher, portable eye wash bottle, appropriate barricades should be available on Site.

Selection of the PPE specified for this project is based on a review of known or suspected hazards, routes of potential exposure (inhalation, skin absorption, ingestion, and skin or eye contact) and the effectiveness of personal protective equipment in providing a barrier to these hazards. In addition, PPE has been selected to match the work requirements and task-specific conditions of the job, and to provide adequate protection without causing unnecessary discomfort or physical impairment to the worker.

6.2 INITIAL PPE LEVELS FOR SPECIFIC WORK TASKS

The selection of Initial Levels-of-Protection takes into consideration the physical, biological and chemical hazards posed by the site as well as those posed by the various pieces of personnel protective clothing. Initial Levels-of-Protection are established so as to obtain acceptable levels of protection while not imposing an unacceptable level of physical stress on the wearer.

Ensure all initial PPE levels have been established for the tasks at each Project. Use the table below to list the level of protection and work activity:

<u>Work Activity</u>	<u>Level of Protection</u>

SECTION 7.0
DESIGNATION OF WORK ZONES

This section of the Health & Safety Plan applies to excavation projects where contaminated soils are exposed and may release their contaminants to the air, or come in contact with field personnel. To minimize the migration of contaminant from the Site to uncontaminated areas, three work zones will be set up:

- | | |
|---------|------------------------------|
| Zone 1: | Exclusion Zone |
| Zone 2: | Contamination Reduction Zone |
| Zone 3: | Support Zone |

The Exclusion Zone is the area where contamination occurs or could occur. Initially, the Exclusion Zone should extend a distance of a few feet from the edge of intrusive activity unless conditions at the Site warrant either a larger or smaller distance as determined by the Project Manager.

The Support Zone is the area of the Site where significant exposure to contamination is not expected to occur during non-intrusive activities. The Support Zone is considered to be the "clean area" of the Site where RAdata personnel not in PPE can stand and observe.

Between the Exclusion Zone and Support Zone is the Contamination Reduction Zone, which provides a transition zone between the contaminated and clean areas of the Site. The Contamination Reduction Zone will be located directly outside of the Exclusion Zone. All personnel must decontaminate when leaving the Exclusion Zone. A Contamination Reduction Zone (decontamination area) will be established adjacent to each individual area of intrusive work.

SECTION 8.0
DECONTAMINATION PROCEDURES

Personnel who have been in contact with contaminated materials will decontaminate themselves in the following manner:

- Deposit contaminated equipment on plastic drop cloths.
- Stand in wash tub containing Alconox® and water, wash boots and outer gloves with long handled brush.
- Rinse boots and outer gloves with long handled brush in a wash tub containing clear water or use a sprayer to rinse off boots and gloves.
- Remove ankle and wrist tapes; place in disposal drum.
- Remove outer gloves and place in disposal drum.
- Remove Tyvek® or Saranex® suit and place in disposal drum.
- Remove respirator and place on table to be decontaminated.
- Remove inner gloves and place in disposal drum.
- Wash hands and face.

All tools or equipment which have been in contact with contaminated materials, must be decontaminated after leaving the Exclusion Zone. This decontamination is to be performed using a high pressure/hot water "steam type" cleaner or a spray/rinse decontamination sequence as described in Section 3.6, Respirator Maintenance, Fitting and Decontamination, as appropriate.

Contaminated liquids from the decontamination area and contaminated clothing should be disposed of in accordance with the specific site protocols.

SECTION 9.0
EMERGENCY RESPONSE PLAN

9.0 EMERGENCY RESPONSE

Emergencies addressed by this plan include:

- Fire;
- Chemical or Radioactive over-exposures; and,
- Physical injuries to site personnel.

The Health & Safety Officer and Project Manager must be notified as soon as possible of any on-site emergency or potential emergency including fire, explosive conditions or OSHA-recordable physical injury.

9.1 EMERGENCY RECOGNITION AND PREVENTION

9.1.1 Chemical and Radioactive Exposures

Work should always be performed in a manner that minimizes exposure to radioactive and chemical contaminants through skin or eye contact, inhalation or ingestion. Work practices to reduce the risk of chemical exposure include:

- PPE will be used by all field personnel covered by this HASP. A formal revision to the HASP must be made by the Health and Safety Officer to modify the PPE specifications.
- Keep hands away from face during work activities.
- Minimize all skin and eye contact with contaminants.

Early recognition of the signs and symptoms of chemical and/or radioactive exposures are essential for the prevention of serious chemical exposure incidents. Symptoms of exposure to the compounds present at the Site include the following: fatigue, weakness; eye, nose, and/or throat irritation; dizziness; nausea; vomiting; malaise; tremors; aggressive confusion; cyanosis (blue color to skin); anemia; and muscle spasms.

If a person experiences any of these symptoms, or recognizes any of them in a fellow worker, the person experiencing the symptoms will stop work immediately and report to the Project Manager. If the symptoms persist or affect performance in any way, the Project Manager will arrange for medical treatment. If the symptoms are serious, or affect several people, work activities in the exposure area will be discontinued until more is known about the cause(s). Incident reporting procedures as specified in Section 3.3 will be initiated.

9.2 EMERGENCY ALERTING PROCEDURES

The Project Manager will alert the appropriate work groups when an emergency occurs. The communication method(s) will be established by the Project Manager. The Project Manager and any isolated work group will carry radios if direct contact cannot be maintained. If direct contact cannot be maintained, an air horn or verbal signal will be used to signal personnel to stop work and assemble in the Contamination Reduction Zone. If evacuation of the Site is necessary, a pre-arranged signal from the air horn or verbal alert will be sounded.

9.3 EVACUATION PROCEDURES AND ROUTES

Evacuation from the Contamination Reduction Zone will proceed in an upwind direction from the emergency. If evacuation to the Support Zone does not provide sufficient protection from the emergency, personnel will be advised to evacuate the Site proper.

9.4 TELEPHONE NUMBERS FOR EMERGENCY SERVICES

Ensure that telephone numbers of local emergency services are provided and listed below:

<u>Emergency Service</u>	<u>Telephone Number</u>
Ambulance	<u>911</u>
Fire Department	<u>911</u>
Police Department	<u>(914) 737-8000</u>
Primary Hospital (Trauma Center)	
<i>Hudson Valley Hospital Center</i>	<u>(914) 737-9000</u>
<i>1980 Crompond Road, Cortlandt Manor, NY</i>	
Poison Control Center	<u>(800) 962-1253</u>
US EPA National Response Center	<u>(800) 424-8802</u>
NJ DEP Hotline	<u>(800) 927-6337</u>
NJ Department of Health	<u>(800) 367-6543</u>
Below Ground Utilities (State of NJ BPU)	<u>(800) 272-1000</u>

These telephone numbers must be verified by the Project Manager before the start of field work. Ensure that the specific HASP contains a map and directions.

9.5 EMERGENCY RESPONSE PERSONNEL

The Project Manager will have the primary role in responding to all emergencies at each Site. The Project Manager, will be present at the Site during all work activities. If any emergency such as a fire, chemical exposure, or physical injury occurs, the Project Manager shall be notified immediately. The Project Manager will direct all site personnel in cases of emergency.

After an emergency has occurred at the Site, the causes and responses to that emergency shall be thoroughly investigated, reviewed and documented by the Project Manager; this documentation is to be submitted to the Health and Safety Officer within 48 hours of the incident.

9.6 DECONTAMINATION PROCEDURES DURING AN EMERGENCY

Decontamination of an injured or exposed worker or during a site emergency shall be performed only if decontamination does not interfere with essential treatment or evacuation.

If a worker has been injured or exposed and decontamination can be done: Wash, rinse, and/or cut off protective clothing and equipment.

If a worker has been injured or exposed and cannot be decontaminated:

- Wrap the victim in blankets, plastic or rubber to reduce contamination of other personnel;
- Alert emergency and off-site medical personnel to potential contamination; and,
- Have the Project Manager or other personnel familiar with the incident and contaminants at the Site accompany the victim to the hospital. If possible, send a copy of the appropriate MSDS(s) with the victim.

9.7 EMERGENCY MEDICAL TREATMENT AND FIRST AID PROCEDURES

Emergency medical treatment or First Aid may be administered at the Site by the PROJECT MANAGER or other personnel who have been certified in First Aid.

General emergency medical and First Aid procedures are as follows:

- Remove the injured or exposed person(s) from immediate danger.
- Render First Aid as needed; decontaminate affected personnel, if necessary.
- Call an ambulance for transport to local hospital immediately. This procedure shall be followed even if there is no apparent serious injury.
- Evacuate other personnel at the Site to safe places until the Project Manager determines that it is safe for work to resume.

- Report the accident to the Health and Safety Officer immediately.

9.8 DIRECTIONS TO THE HOSPITAL FROM SITE

The route and/or directions to the hospital from the Site must be included with each specific Project HASP. List as a separate attachment.

The directions to the hospital from the Site must be verified by the Project Manager prior to the start of field work. List as a separate attachment.

SECTION 10.0
PERSONNEL ASSIGNMENTS

I have reviewed the Health and Safety Plan for Kurtsam Realty, 20 Welcher Ave, Peekskill, NY. I have read the HASP, understand it, and agree to comply with all of its provisions. I understand that I could be prohibited from working on the project for violating any of the safety requirements specified in the Health and Safety Plan.

_____ Name	_____ Company
_____ Signature	_____ Date
_____ Name	_____ Company
_____ Signature	_____ Date
_____ Name	_____ Company
_____ Signature	_____ Date
_____ Name	_____ Company
_____ Signature	_____ Date
_____ Name	_____ Company
_____ Signature	_____ Date

SECTION 11.0
HEALTH AND SAFETY PLAN APPROVAL

NJDEP INDOOR AIR SCREENING LEVEL

Attachment A

Contaminant Of Concern	CAS #	OSHA PEL (TWA)	IDLH	Flam-mable?	Carcin-ogen?	Residential Health-based Values (ppbv)	Nonresidential Health-based Values (ppbv)
Acetone	67-64-1	1000	2500	Y	N	1400	1900
Benzene	71-43-2	1 ppm	500 ppm	Y	Y	0.07	0.2
Bromodichloro-methane	75-27-4	-		N	Y	0.02	0.03
Bromoethene (vinyl bromide)	593-60-2	-	-	Y	Y	0.01	0.03
Bromoform	75-25-2	0.5	850	N	Y	.2	0.4
Bromomethane (methyl bromide)	74-83-9	C20	250	Y	N	1	2
1,3-Butadiene (vinyl ethylene)	106-99-0	1	2000	Y	Y	0.03	0.06
2-Butanone (MEK)	78-93-3	200	3000	Y	N	1700	2400
Carbon disulfide	75-15-0	20	500	Y	N	230	330
Carbon tetrachloride	56-23-5	10	200	N	Y	0.02	0.04
Chlorobenzene	108-90-7	75	1000	Y	N	11	16
Chloroethane (ethyl chloride)	75-00-3	1000	3800	Y	Y	0.8	2
Chloroform	67-66-3	C50	500	N	Y	0.02	0.04
Chloromethane (methyl chloride)	74-87-3	100	2000	Y	N	46	64
3-Chloropropene (allyl chloride)	107-18-6	2	20	Y	Y	0.1	0.2

2-Chlorotoluene (o-chlorotoluene)	95-49-8	-	-	Y	N	14	20
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Contaminant Of Concern	CAS #	OSHA PEL (TWA)	IDLH	Flam-mable?	Carcin-ogen?	Residential Health-based Values (ppbv)	Nonresidential Health-based Values (ppbv)
Cyclohexane	110-82-7	300	1300	Y	N	1800	2500
Dibromochloro-methane	124-48-1	-			Y	0.009	0.02
1,2-Dibromoethane (ethylene dibromide)	106-93-4	20	100	N	Y	0.0004	0.0009
1,2-Dichlorobenzene (o)	95-50-1	50	200	N	N	24	34
1,3-Dichlorobenzene (m)	541-73-1	-		N	N	2	3
1,4-Dichlorobenzene (p)	106-46-7	75	150	N	Y	0.05	0.1
Dichlorodifluoro-methane (Freon 12)	75-71-8	1000	15000	N	N	37	52
1,1-Dichloroethane	75-34-3	100	3000	Y	N	130	180
1,2-Dichloroethane	107-06-2	50	50	Y	Y	0.02	0.04
1,1-Dichloroethene	75-35-4	-	-	Y	N	55	77
1,2-Dichloroethene (trans)	540-59-0	200	1000	Y	N	18	26
1,2-Dichloroethene (total)	156-59-2	-			N	8	12
1,2-Dichloropropane	78-87-5	75	400	Y	Y	0.02	0.04
1,3-Dichloropropene (total)	542-75-6	-	-	Y	Y	0.1	0.3
Ethylbenzene	100-41-4	100	800	Y	N	240	340
Hexachlorobutadiene	87-68-3	-	-	N	Y	0.008	0.02

Contaminant Of Concern	CAS #	OSHA PEL (TWA)	IDLH	Flam-mable?	Carcin-ogen?	Residential Health-based Values (ppbv)	Nonresidential Health-based Values (ppbv)
n-Hexane	110-54-3	500	1100	Y	N	210	290
Methylene chloride (dichloromethane)	75-09-2	25	2300	N	Y	1	2
4-Methyl-2-pentanone (MIBK)	108-10-1	100	500	Y	N	770	1100
MTBE (methyl t-butyl ether)	1634-04-4	50		Y	Y	0.4	1
Styrene	100-42-5	100	700	Y	N	250	340
t-Butyl alcohol (TBA)	75-65-0	100	1600	Y	N	22	30
1,1,2,2-Tetrachloroethane	79-34-5	5	100	N	Y	0.005	0.01
Tetrachloroethylene (PCE)	127-18-4	100	150	N	Y	0.05	0.1
Toluene	108-88-3	200	500	Y	N	1400	1900
1,2,4-Trichlorobenzene	120-82-1	-	-	N	N	5	7
1,1,1-Trichloroethane	71-55-6	350	700	N	N	190	260
1,1,2-Trichloroethane	79-00-5	10	100	N	Y	0.02	0.05
Trichloroethylene (TCE)	79-01-6	100	1000	N	Y	0.003	0.007
Trichlorofluoromethane (Freon 11)	75-69-4	1000	2000	N	N	130	180
1,1,2-Trichloro-1,1,2-trifluoroethane (Freon TF)	76-13-1	1000	2000	N	N	4100	5700
Vinyl chloride	75-01-4	1	-	Y	Y	0.03	0.4
Xylenes (total)	-	100	900	Y	N	25	35

SECTION 10.0
PERSONNEL ASSIGNMENTS

I have reviewed the Health and Safety Plan for Kurtsam Realty, 20 Welcher Ave, Peekskill, NY. I have read the HASP, understand it, and agree to comply with all of its provisions. I understand that I could be prohibited from working on the project for violating any of the safety requirements specified in the Health and Safety Plan.

John Cowell
Name
[Signature]
Signature

Radata, Inc
Company
10/19/10
Date

Derek GOMPERTZ
Name
Derek Gompertz
Signature

Ra data inc.
Company
10/19/10
Date

Niko Kelyvas
Name
NK
Signature

Conte Electric Inc.
Company
10/20/10
Date

Luis Tepan
Name
[Signature]
Signature

Conte Electric Inc.
Company
10/20/10
Date

DOUGLAS HOWELL
Name
[Signature]
Signature

CONTE ELECTRIC INC
Company
10/20/10
Date

ATTACHMENT

7



RAdata, Inc.

27 Ironia Road, Unit 2
Flanders, New Jersey 07836
973-927-7303 973-927-4980 fax
1-800-447-2366

OPERATIONS AND MAINTENANCE SCHEDULE FOR THE ACTIVE SOIL DEPRESSURIZATION SYSTEMS

The blower units used in the active soil vapor depressurization systems are maintenance free and require no attention until the U-Tube manometers indicate the fan unit has failed.

30 DAY SERVICE: RAdata, Inc. recommends that the magnehelic gauges be observed and checked for proper blower functions **every 30 days** to ensure the proper function of the fan units.

Refer to As Built Drawings provided by RAdata, Inc. for systems location.

YEARLY SERVICE: It is recommended that the active soil depressurization systems be serviced **on a yearly basis**. That work will consist of:

- Removing and cleaning fan, note fans condition
- Adjust worm drive
- Check pipe clamps for breakage
- Check for moisture in pipe and make corrective adjustments if necessary
- Re-caulk all floor penetrations where accessible
- Check magnehelic manometers. Replace if necessary
- Register vacuum measurements
- Check electrical connections
- Measurement sub-floor communication
- Add system labeling if necessary
- Check all fire barriers
- Check for moisture under floor

Please contact our office for additional information regarding service on the active soil depressurization systems.

ATTACHMENT

8



27 Ironia Road, Unit 2
Flanders, New Jersey 07836
973-927-7303
973-927-4980 Fax

Proposal

Kurtsam Realty
Box 383 Quaker Ridge Road
Croton-On-Hudson, NY 10520

Attention: Fred Schwalb
973-584-7777x119 Bell Env.
DKeane@bellenvironmental.com

7/8/2010
No: 17844

Job Location: Go No Sen Karate Dojo
20 Welcher Avenue
Peekskill, NY 10566

County: Westchester

Job Description

In October of 2006 the New York State Department of Environmental Conservation (N.Y.S.D.E.C.) in consultation with the New York State Department of Health (N.Y.S.D.O.H) established a Guidance of Evaluating Soil Vapor Intrusion in the State of New York. The objective of the remedial techniques stated in that document is to eliminate the pathway between the source (contaminated ground water or subsurface soils) and the building occupants. That document represents Active Sub Slab Depressurization Systems (ASDS) to be the most effective application for this purpose. The required system design, installation and evaluation guidance are drawn from United States Environmental Protection Agency (U.S.E.P.A.) radon remediation publications. In the N.Y.S.D.O.H document it is recommended that a Environmental Professional, such as a Licensed Radon Mitigation Business, be used for this type of work. The goal of this type of installation is to achieve a sub slab vacuum measured at 1 Pascal or 0.004 inches of water thus reducing the potential for inhalation of vapors migrating from the soil through the building slab.

****SYSTEM CLASSIFICATION:** It is stated in the N.Y.S.D.O.H. Guidance that this type of installation be considered temporary. Guidance recommendations are to remove the system when either the remediation of the underlying contaminated soil or water is complete, or the vapor intrusion no longer exceeds acceptable standards. **THE VENTING SYSTEM OUTLINED IN THIS PROPOSAL, IF CONSIDERED A PERMANENT ADDITION TO THIS BUILDING AND WILL REQUIRE YEARLY SERVICE, AND INDOOR AIR MONITORING SHOULD BE IMPLEMENTED.** Submission of an annual certification to the State may be required.

****SYSTEM SPECIFICATIONS:** The number of venting systems suggested for this portion of the building is a total of three (3). The facility is a 5,100 square foot one story masonry building with a finished basement area. The basement is partitioned into multiple use rooms. Various radon remediation publications recommend installing one ventilation system for each 1,500 square feet of foundation area.

Install three (3) Active Soil Depressurization Systems (ASDS) to address the VOC contamination below the concrete basement slab consisting of the following actions:

- 1). Drill four inch (4") holes through the basement concrete slab. Two (2) slab penetrations will be installed along the interior perimeter of the building foundation and one (1) slab penetration will be installed in a central closet area. These holes will be piped with three or four inch (3"/4") Schedule 40 PVC. Piping shall be fastened to the wall or concrete deck using industry standard metal straps and hangers. Supports for the ASDS shall be six feet (6') on horizontal runs and every eight feet (8') on runs that do not penetrate floors, ceilings or roof. A sample port and vacuum gauge shall be installed for each system. Systems will be clearly labeled to identify their purpose.
- 2). Extend three (3) manifolds to the rear of the building. Extend vent pipes vertical to a termination point no less than 12" above the roofline. Exterior vent pipes shall be anchored to brick wall with pipe supports every eight feet (8'). Vent points will conform with all venting specifications provided by The N.Y.S.D.O.H.
- 3). Exhaust fans will be Fantech, Dynavac or Festa blowers (one year warranty). Fans will be mounted at rear of building about 10' above grade. Fan units will be hard wired by a New York State Licensed Electrician with an on/off switch provided for each fan. Magnehelic gauges and audio alarms will be placed on all systems to alert occupants if system(s) fan(s) have stopped working. Monitoring devices shall be placed in plain view of employees and/or management. Audio alarms devices will be hard wired by a New York State Licensed Electrician on separate breakers to prevent accidental disconnect. Electrical service for fans and alarms units is

ESTIMATED at \$1,595.00. Cost over runs will be documented and passed along to the CLIENT with a plus 20% cost adjustment

- 4.) Upon completion of the installation of the ASDS, Radata, Inc. shall provide an Operations and Maintenance Manual and review systems installation and maintenance requirements with the property owner or representative:
 - a. The systems operation, including equipment manuals and specifications for mechanical and electrical components. RAdata, Inc. will provide contact information including name, telephone number, and e-mail address to the property owner for future contact.
 - b. How the warning system functions and what procedures are to be followed if it is activated.
 - c. All guarantees or warranties will be transferred to the property owner as well as manuals or equipment documents.

SYSTEMS INSTALLED PURSUANT TO SPECIFICATIONS OF ASTM 2121 - 03

Air Discharge Permit requirements (if applicable), as well as the retesting of contaminants in the exhaust stream, will be the responsibility of Bell Environmental. Sampling at six months and each year thereafter will be the responsibility of Bell Environmental as per N.Y.S.D.O.H requirements. This will continue to demonstrate that Air Discharge Permit Requirements are complied with unless their standards are changed in the future. After the installation is complete it will be the responsibility of the client to sample and maintain required measurements for all aspects associated with indoor and exhaust vapor limits in the systems, and the occupied space, as per N.Y.S.D.O.H. requirements.

****CONFIRMATORY TESTING:** Pressure field extension testing will be completed to qualify the extent of the sub-floor vacuum. Backdraft conditions will also be evaluated for the boiler and other combustion equipment.

****SOIL DISPOSAL:** The removal and disposal of all soil and concrete removed from under the floor during the installation of the described systems will be the responsibility of RAdata, Inc. Disposal will be coordinated with Bell Environmental. A disposal manifest will be a part of the final work product. RAdata will place soils and contaminated building debris, as well as, but not limited to, work coveralls and gloves in appropriate containers for removal. Removal and disposal of the drum from the job site will be completed by Clean Ventures, 201 South First St, Elizabeth, NJ. or another approved vendor. ESTIMATED DISPOSAL COST IS \$1,350.00. Cost over runs will be documented and passed along to the CLIENT with a plus 20% cost adjustment.

****DRAWINGS:** An "As Built" final plan drawing signed by a N.E.H.A. Radon Mitigation Specialist will be supplied with final work documents. For permit purposes as required by the local municipality, initial drawings for the installation of a Commercial Grade Radon Exhaust System will be supplied by RAdata, Inc. and signed by a N.E.H.A. Radon Mitigation Specialist. The need for the signature of a New York Licensed Architect or Engineer, if required by the town, would be an additional cost.

****REQUIRED VACUUM:** The outlined ASDS goal will be to create a measurable vacuum in the order of 1 Pascal or -0.004 inches of water column in all areas under the slab. This will be measured by RAdata, Inc. with the use of a micro-monometer and the results will be reported to the Client.

****ONGOING MONITORING & MAINTENANCE:** In ASDS Guidance for Evaluating Soil Vapor Intrusion in the State of New York (October 2006) must be referred to. This document is a guidance, not a regulation, rule or requirement. The client is accountable for the ongoing system verification sampling, monitoring and maintenance requirements.

****VERIFICATION PROCEDURES:** Bell Environmental will conduct exhaust stream VOC measurements to support the lack of the need for an air discharge permit at the time of the installation. Confirmatory indoor air sampling should be conducted by the client two to four weeks after systems is operational to verify the effectiveness of the system and the results should be below the N.Y.S.D.O.H. acceptable limits. If these tests are not conducted between November through March, a second round in that time frame is required unless the reduction is an order of magnitude or greater. If the pressure gauge installed on the systems indicate that the remedial system is not operating efficiently, the system should be repaired. An inspection should be conducted by RAdata, Inc. semi-annually to determine if the system is operating properly. After the first year a reduced inspection frequency may be appropriate and changed to once a year.

****WORKER HEALTH & SAFETY PLAN:** RADATA, INC. will supply to the client a Worker Health and Safety Plan appropriate for this project.

****WARRANTY:** RAdata, Inc. assumes no responsibility and/or liability for the success or failure of this treatment system for the removal of vapors other than radon gas. Where RAdata, Inc. will demonstrate system performance and achieved sub floor vacuum there is no warranty, either expressed or implied, as the reduction of any vapors other than radon gas impacting the safety and

habitability of the treated spaces. Any testing and/or additional filtration of other vapors in the building or filtration of the air stream exiting the systems remains the responsibility of the client. RAdata, Inc. shall be held harmless from any and all aspects of measurable gas concentrations or indoor air quality issues other than radon gas as set forth by our standard warranty. As the Subsurface Depressurization Systems move air from the soil beneath the concrete floor, the guidance of the U.S.E.P.A. and the represent findings that additional soil gases should be included in the exhaust stream. The outlined soil vapor venting system will create a measurable induced vacuum in the order of 1 Pascal or 0.004 inches of water column in all areas under the slab. This will be measured by RAdata, Inc. with the use of a micro-monometer.

WARRANTY RESTRICTIONS: Sub-floor material must be porous and free of standing water. If conditions are not appropriate for proper airflow, additional work may be necessary at an additional cost.

Snbtotal: \$37,975.00

Notes:

- 1) All work areas must be made accessible for service crew prior to installation or there will be an additional charge of \$125 per hour (per man) added for the time it takes our staff to access work area properly.
- 2) Prices subject to change after 60 days.

TOTAL JOB COST: \$37,975.00

GUARANTEE: NA

**WARRANTY NA
RESTRICTIONS:**

All material is guaranteed to be as specified. All work will be completed in a professional manner according to standard practices. Any alteration or deviation from above specifications involving extra costs will be executed only upon written orders, and will become an extra charge over and above the estimate. All agreements contingent upon strikes, accidents, or delays beyond our control. Owner to carry fire, tornado, and other necessary insurance. Our workers are fully covered by Workman's Compensation insurance.

Payment Terms: Net 30 days

The above, specifications, and conditions are satisfactory and are hereby accepted. You are authorized to do the work as specified. Payment will be made as outlined above.

Acceptance of Proposal:

System Proposed/Designed by:

David Grammer, Mitigation
Specialist



Customer Signature

Date

Kurtz and Realty Corp
by: [Signature] 8/30/10

ATTACHMENT

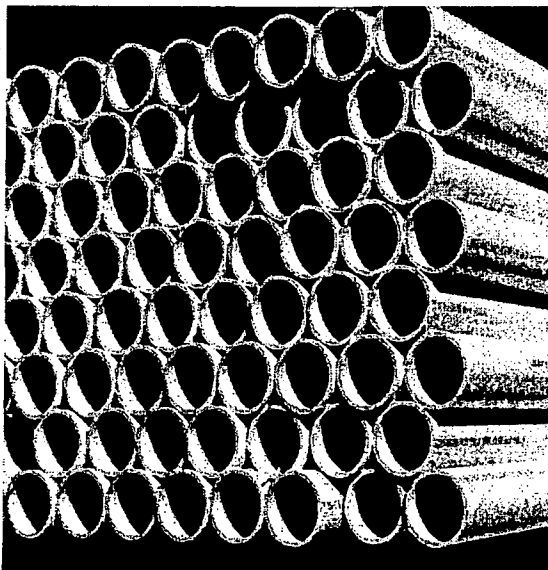
9



North American Pipe Corporation

www.northamericanpipe.com

Product Description:



ASTM D1785/D2665 Schedule 40/DWV Dual Rated Pipe

North American Pipe's ASTM D1785 Schedule 40 Dual Rated (both Pressure and DWV rating) product line is manufactured to meet the needs of a broad range of industrial, commercial and residential piping systems. With top quality raw materials and modern processing technology, North American Pipe's ASTM D1785 Schedule 40 Dual Rated pipe meets all industry standards in addition to our own rigorous quality control. North American Pipe's 1785 Schedule 40 Dual Rated product line carries both a pressure and DWV rating to give the designer, installer and end user the flexibility of one product for two distinct applications. North American Pipe produces a broad range of sizes in both plain end and belled end configurations in our Schedule 40 product line. Whether specifying or installing our pipe you can be assured that North American Pipe will provide the highest quality pipe, all the time.

This product is made in accordance with the following specifications:

ASTM D1784
ANSI/NSC 14

ASTM D1785
ANSI/NSC S1

ASTM D6670
ASTM D6655

Short Form Specification for North American Pipe Corporation ASTM D1785/D2665 Schedule 40/DWV Dual Rated Pipe

Schedule 40 water distribution pipe shall be made in accordance with ASTM D1785 and ASTM D6655 from a PVC compound conforming to a cell classification of 10454 as defined by ASTM D1784. Belled end of solvent weld pipe shall meet the requirements of ASTM D6670 when installed in accordance with ASTM D6655. Solvent weld belled end pipe shall be tested and approved for contact with potable water in accordance with ANSI/NSC S1 and NSC 14 and be factory Mutual approved. Pipe shall be dual marked for use in water distribution and drain, waste, and vent applications.



Rev: 07/2006

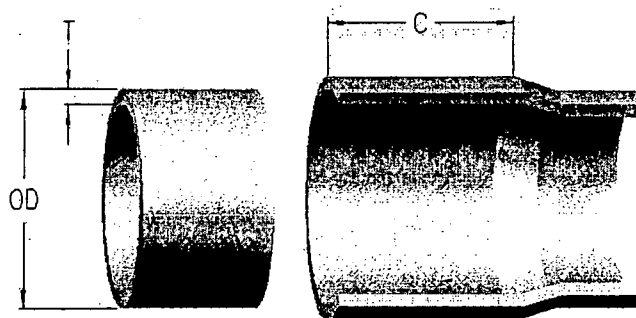
2801 Post Oak Blvd. | Suite 600 | Houston | TX | 77056
Phone: 713-840-7473 Toll Free 800-999-7473 Fax: 713-552-0087



North American Pipe Corporation

www.northamericanpipe.com

ASTM D1785/D2665 Schedule 40/DWV Dual Rated Pipe



NOMINAL PIPE SIZE	OUTSIDE DIA. - 120 (OD)	**APPROX. BELL DEPTH (C)	(T)	PRESSURE RATING (psi)
1/2"	.840	1.75	.109	S00
3/4"	1.050	Q50	.11P	480
1"	1.P15	Q50	.1PP	450
1 1/4"	1.SS0	Q50	.140	P70
1 1/2"	1.900	Q50	.145	PP0
2"	QF75	P.O5	.154	O80
2 1/2"	Q875	P.50	.00P	P00
3"	P.500	4.O5	.01S	O50
4"	4.500	5.50	.0P7	O00
5"	5.5SP	S.00	.058	190
6"	S.S05	7.00	.080	180
8"	8.S05	7.50	.P00	1S0
10"	10.750	8.50	.PS5	140
12"	1Q750	10.00	.40S	1P0
14"	14.000	10.00	.4P7	1P0
16"	1S.000	10.00	.500	1P0

Note: These dimensions are for estimating purposes only ** Nominal depth, depth will vary by pressure class

Rev: 07/2006

2801 Post Oak Blvd. | Suite 600 | Houston | TX | 77056
Phone: 713-840-7473 Toll Free 800-999-7473 Fax: 713-552-0087



MATERIAL SAFETY DATA SHEET

Effective Date: March 8, 2007

**1. PRODUCT AND
COMPANY
IDENTIFICATION**

Trade Name: Polyvinyl Chloride Pipe
Chemical Name: Mixture
Synonyms: Not applicable
Chemical Family: Mixture of Polyvinyl Chloride Homopolymer
Formula: Mixture, see below.

COMPANY ADDRESS: North American Pipe Corporation
2801 Post Oak Blvd.
Houston, TX 77056

EMERGENCY CONTACT: CALL 1-217-324-6515
THESE NUMBERS ARE AVAILABLE DAYS, NIGHTS, WEEKENDS, AND HOLIDAYS, EXCEPT ON
DECEMBER 24 TO 26.

2. COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS Number	% By Weight	OSHA PEL-TWA mg/m ³	ACGIH TLV-TWA mg/m ³
Polyvinyl chloride resin (chloroethene homopolymer), treated as nuisance particulate	9002-86-2	95	5 (respirable fraction) 15 (total dust)	3 (respirable particulate) 10 (total particulate)
Calcium carbonate	1317-65-3	3-4	5 (respirable fraction) 15 (total dust)	10 (total particulate)
Waxes	NE	1-2	NE	2 (as Paraffin Wax Fume)
Titanium dioxide	13463-67-7	<1	15 (total dust)	10 (total particulate)

NE = Not Established

3. HAZARDS IDENTIFICATION

This product is non-hazardous under Hazard Communication Standard 29 CFR 1910.1200.

HAZARD RATINGS

Degree of hazard (0 = low, 4 = extreme)

National Fire Protection
Association

Health: 1 Flammability: 1 Reactivity: 0 Specific Hazard: None

Hazardous Materials
Identification System

Health: 1 Flammability: 1 Reactivity: 0

This Material Safety Data Sheet is offered solely for your information, consideration, and investigation. North American Pipe Corporation provides no warranties, either express or implied, and assumes no responsibility for the accuracy or completeness of the data contained herein.

MATERIAL SAFETY DATA SHEET

4. FIRST AID MEASURES

- EYE CONTACT:** Immediately flush with large amounts of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Consult a physician immediately.
- SKIN CONTACT:** Cool skin rapidly if contacted with molten polymer. Obtain medical attention for thermal burns or skin irritation.
- INHALATION:** The product is not expected to present an inhalation hazard, unless mechanically chipped or pulverized or if melted during fire. If dust or fumes are inhaled, remove to fresh air.
- SWALLOWING:** No adverse health effects expected from ingestion.
-

5. FIRE FIGHTING MEASURES

Flash Point: Not applicable
Lower Explosive Limit: Not applicable
Upper Explosive Limit: Not applicable
Autoignition Temp: 849°F (470°C)

- EXTINGUISHING MEDIA:** Use water spray, dry chemical, or foam.
- SPECIAL FIRE FIGHTING PROCEDURES:** Use NIOSH/MSHA approved self-contained breathing apparatus and full protective clothing if involved in fire.
- UNUSUAL FIRE AND EXPLOSION HAZARDS:** PVC homopolymers are self-extinguishing plastic materials. They will burn in the presence of other materials that support combustion and will generate hydrogen chloride, phosgene, benzene, carbon monoxide, carbon dioxide, aromatic and aliphatic hydrocarbons, and other gases.
-

6. STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

Collect scrap for reprocessing, or for landfill in compliance with local regulations.

7. HANDLING/STORAGE

Use any methods that keep dust to a minimum. General storage procedures are acceptable.

8. EXPOSURE CONTROLS/ PERSONAL PROTECTION

- EYE PROTECTION:** Safety glasses are required if there is a possibility of getting dust particles in eyes. Have eye wash equipment nearby.
- SKIN PROTECTION:** None required.
-

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MATERIAL SAFETY DATA SHEET

8. EXPOSURE CONTROLS/ PERSONAL PROTECTION (C2 17'D)

VENTILATION: Local exhaust ventilation is recommended to control airborne dust.

RESPIRATORY PROTECTION: If dust or fumes exist, use a NIOSH/MSHA approved respirator. At unknown concentrations and for fire fighting, use self-contained breathing apparatus (SCBA). Always use respirators in accordance with instructions.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical Form:	<u>Solid</u>
Boiling Point:	<u>Not available</u>
Heat Deflection Temperature:	<u>168°F (76°C)</u>
Vapor Density:	<u>Not applicable</u>
Vapor Pressure (mm Hg):	<u>Not applicable</u>
Evaporation Rate:	<u>Not applicable</u>
% Volatile by Volume:	<u>Not applicable</u>
Density:	<u>Not determined</u>
Specific Gravity:	<u>1.42</u>
Solubility in Water (20 °C):	<u>Insoluble</u>
Melting Point:	<u>Not available</u>
Viscosity:	<u>Not applicable</u>
Odor:	<u>Plastic, resin odor</u>
Appearance:	<u>Blue, Green, Purple, Light Gray, or White plastic pipe</u>
pH:	<u>Not applicable</u>

10. STABILITY/REACTIVITY

Stability: Stable under normal storage conditions.

CONDITIONS TO AVOID: None known.

INCOMPATIBLE MATERIALS: None known.

HAZARDOUS DECOMPOSITION PRODUCTS: Hydrogen chloride, benzene, carbon monoxide, carbon dioxide, aromatic and aliphatic hydrocarbons, and other gases could be released in fire.

POLYMERIZATION: Hazardous polymerization not expected.

11. TOXICOLOGICAL INFORMATION

No toxicological data were found for this product. The effects reported are those anticipated based on the components of this product.

POTENTIAL ROUTES OF EXPOSURE: Inhalation of dust is the most likely route of exposure to this product.

SIGNS, SYMPTOMS, AND TOXIC EFFECTS OF OVEREXPOSURE: Exposure to high concentrations of dust of this product will cause irritation of the respiratory tract with cough, difficulty breathing, dryness of the throat, or eye irritation.

MATERIAL SAFETY DATA SHEET

11. TOXICOLOGICAL INFORMATION (C217'D)

ANIMAL TOXICITY DATA:

Component	Inhalation LC ₅₀	Dermal LD ₅₀ (mg/kg)	Oral LD ₅₀ (mg/kg)
PVC homopolymer	No data found.	No data found.	No data found.
Calcium carbonate	No data found.	No data found.	No data found.
Titanium dioxide	No data found.	No data found.	No data found.

REPRODUCTIVE EFFECTS: No data were found regarding reproductive effects in humans or animals for any component of this product.

MUTAGENICITY DATA: No mutagenicity data were found for any component of this product.

DESIGNATION AS POTENTIAL IARC designates PVC homopolymer and titanium dioxide as Group 3,
"nRW

CARCINOGEN: classifiable as to IARC Group 3, "nRW"

MEDICAL CONDITIONS
AGGRAVATED BY EXPOSURE: No data were found regarding this issue.

INTERACTIONS WITH
CHEMICALS THAT ENHANCE
TOXICITY: No data were found regarding this issue.

12. ECOLOGICAL INFORMATION

No data were found regarding adverse ecological impacts of this product.

13. DISPOSAL CONSIDERATIONS

Disposal should conform to federal, state, and local regulations. If hazardous according to 40 CFR part 261.31 or 32, or possesses characteristics of 40 CFR 261 Subpart C, dispose in a facility meeting the requirements of 40 CFR 264 or 265. If non-hazardous, dispose in a facility meeting the requirements of 40 CFR 257. Before attempting cleanup, refer to hazard information and personal protection information in other sections of this MSDS. If waste is determined to be hazardous, use licensed hazardous waste transporter and disposal facility.

RCRA Status of Unused Material: If discarded in unaltered form, should be tested in accordance to 40CFR 261 Subpart C and disposed as specified above.

14. TRANSPORTATION INFORMATION

U.S.D.O.T. SHIPPING NAME, ID NO, HAZARD CLASS: Not Regulated (also, Canada via rail and truck.)

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MATERIAL SAFETY DATA SHEET

15. REGULATORY INFORMATION

SARA 313 LISTING: This product does not contain any substance subject to the reporting requirements of section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 and of 40 CFR 372.

SARA 312 HAZARD CLASS: Not applicable.

SARA EXTREMELY
HAZARDOUS SUBSTANCES: Not applicable.

EPA HAZARDOUS SUBSTANCES
LIST: (40 CFR 302.4): Not hazardous.

CA PROPOSITION 65: This product does not contain any substance listed in the State of California Safe Drinking Water and Toxic Enforcement Act of 1986, as updated (February 23, 2001).

PENN. RIGHT-TO-KNOW: All required components are identified.

N.g. RIGHT-TO-KNOW: All required components are identified.

MASS. RIGHT-TO-KNOW: All required components are identified.

TSCA INVENTORY STATUS: All components of this product are listed on the TSCA Inventory.

CANADIAN WHMIS CLASS: Not applicable.

16. OTHER INFORMATION

REVISIONS: Entire MSDS reviewed March 8, 2007.

PREPARED BY: Tetra Tech EM, Inc., using standard references and information provided and directed by North American Pipe Corporation.

PRODUCT DATA SHEET

December 2005

Biostop® Pipe Collar

Classified Through-Penetration FireStop System Numbers

CAJ2135, CAJ2152, CAJ2154, CAJ2156, CAJ5106, CAJ2181, CAJ2177, CAJ2198, CAJ2200, CAJ2266, WL2109, WL2120, WL2118, WL2135, WL2136, WL2133, WL2208, WL2256, WL3151, WJ2040, WJ3055, FC2059, FC2060, FC2061, FC2068, FC2166, FC8016, FC8018, FA2044



1. Product Description

Biostop® Pipe Collars are prefabricated for open and closed through-penetration firestop systems using 1 1/2" (38 mm) to 6" (152 mm) plastic pipe. An easy locking mechanism assures easy installation. The collar design greatly reduces the time and expense that is required to install competitive collars.

Biostop® Pipe Collar Features

- Saves on Labor Cost
- Easy Installation
- Economical
- No Measurement of Material Required
- Highly Intumescent
- Tested for PVC, CPVC, ABS and PVC/ABS Foam Core, FRPP

2. Material Properties

Asbestos Fillers	None
Solvents	None
Hazardous Ingredients	None

Activation of Intumescence:

Expansion Begins 375°F (190° C)
Expansion Greatest 575° (302° C)
to 1100°F (593° C)

3. Applications

Biostop® Pipe Collars are used to seal off plastic pipe both in closed and vented (DWV) conditions. Also for use on up to 6" (152 mm) diameter ABS (cellular core or solid core), FRPP, PVC and CPVC pipe. The collar may be used on up to 3 hour rated concrete floors and walls, up to 2 hour rated gypsum walls and up to 2 hour rated wood floors.

4. Installation Data

Biostop® Pipe Collars are prefilled and very easy to install.

- 1) Select the proper collar to fit the diameter of pipe used.
- 2) Making sure annular space is within the limits set by the tested conditions, attach collar around the pipe on the underside of the floor or to each side of a wall by firmly placing against the wall or

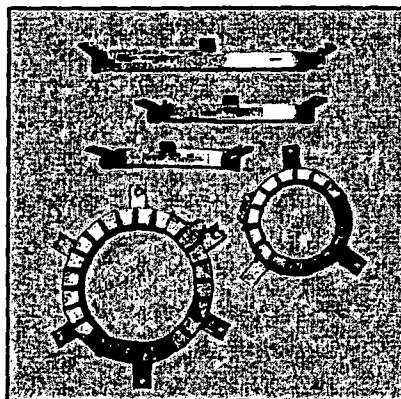
floor and securing interlocking tabs [1 1/2" (38 mm), 2" (51 mm), 3" (76 mm) and 4" (102 mm)] or fastening the buckle [6" (152 mm)].

- 3) If needed, mark and predrill wall or floor for required anchors. Properly secure the appropriate anchor into each of the anchoring tabs. In concrete, use 1/4" (6 mm) x 1 1/4" (32 mm) hex washer head type concrete anchors or appropriate steel expansion/wedge anchors. In gypsum, use 1/8" (3 mm) x 2" (51 mm) MOLLY type hollow wall anchors.
- 4) If an additional smoke seal is required, Biostop® 500+ may be applied within the annular space before the attachment of the collar.

5. Testing Data

Biostop® Pipe Collars are classified by Underwriters Laboratories as a Firestop Device. For specific test criteria, see the UL Fire Resistance Directory or call RectorSeal. Biostop® Pipe Collars were tested at a minimum .01 inches (2.5 Pa) of water positive pressure in accordance with UL 1479 (ASTM E814) test standards.

Complies to Required Environmental Exposure Testing of Accelerated Aging and High Humidity as per UL 1479 Fire Test of Through-Penetration Firestops.



IPS WELD-ON	MATERIAL SAFETY DATA SHEET	Date Revised: APR 2007 Supersedes: OCT 2004																														
Information on this form is furnished solely for the purpose of compliance with the Occupational Safety and Health Act and shall not be used for any other purpose. IPS Corporation urges the customers receiving this Material Safety Data Sheet to study it carefully to become aware of the hazards, if any, of the product involved. In the interest of safety, you should notify your employees, agents and contractors of the information on this sheet.																																
SECTION I																																
MANUFACTURER'S NAME IPS Corporation ADDRESS 17109 S. Main St., P.O. Box 379, Gardena, CA. 90248	Transportation Emergencies: CHEMTREC: (800) 424-9300 Medical Emergencies: 3 E COMPANY (24 Hour No.) (800) 451-8346 Business: (310) 898-3300																															
CHEMICAL NAME and FAMILY Solvent Cement for PVC Plastic Pipe Mixture of PVC Resin and Organic Solvents	TRADE NAME: WELD-ON HOT 'R COLD 727 Low VOC Cement for PVC Plastic Pipe FORMULA: Proprietary																															
SECTION II - HAZARDOUS INGREDIENTS																																
None of the ingredients below are listed as carcinogens by IARC, NTP or OSHA																																
	CAS#	APPROX %	ACGIH-TLV	ACGIH-STEL	OSHA-PEL	OSHA-STEL	DUPONT (A) AEL	(B) STEL																								
Polyvinyl Chloride Resin (PVC)	NON/HAZ		N/A		N/A																											
Tetrahydrofuran (THF)**	109-99-9	29 - 44	50 PPM	100 PPM	200 PPM	250 PPM	50 PPM	75 PPM																								
Methyl Ethyl Ketone (MEK)	78-93-3	4 - 15*	200 PPM	300 PPM	200 PPM	300 PPM																										
Cyclohexanone	108-94-1	8 - 17	20 PPM Skin		50 PPM																											
Acetone	67-64-1	1 - 11	500 PPM	750 PPM	750 PPM	1000 PPM																										
All of the constituents of Weld-On adhesive products are listed on the TSCA inventory of chemical substances maintained by the US EPA, or are exempt from that listing.																																
(A) Dupont and BASF mfg's Acceptable Exposure Limit (AEL) for 8 hour and 12 hour TWA, (B) Dupont/BASF recommended STEL for 15 minute TWA.																																
**Information found in a report from the National Toxicology Program (NTP) on an inhalation study in rats and mice suggests that Tetrahydrofuran (THF) can cause tumors in animals. In the study the rats and mice were exposed to THF vapor levels up to 1800 PPM for two years (their lifetime), 6 hours/day, 5 days/week. Test results showed evidence of liver tumors in female mice and kidney tumors in male rats. No evidence of tumors was seen in female rats and male mice. There is no data linking Tetrahydrofuran exposure with cancer in humans.																																
BULK SHIPPING INFORMATION / CONTAINERS LARGER THAN ONE LITER DOT Shipping Name: Adhesive DOT Hazard Class: 3 Identification Number: UN 1133 Packaging Group: II Label Required: Flammable Liquid				SPECIAL HAZARD DESIGNATIONS <table style="width: 100%; border-collapse: collapse;"> <tr> <th></th> <th style="text-align: center;">HMIS</th> <th style="text-align: center;">NFPA</th> <th style="text-align: center;">HAZARD RATING</th> </tr> <tr> <td>HEALTH:</td> <td style="text-align: center;">2</td> <td style="text-align: center;">2</td> <td style="text-align: center;">0 - MINIMAL</td> </tr> <tr> <td>FLAMMABILITY:</td> <td style="text-align: center;">3</td> <td style="text-align: center;">3</td> <td style="text-align: center;">1 - SLIGHT</td> </tr> <tr> <td>REACTIVITY:</td> <td style="text-align: center;">0</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2 - MODERATE</td> </tr> <tr> <td>PROTECTIVE</td> <td></td> <td></td> <td style="text-align: center;">3 - SERIOUS</td> </tr> <tr> <td>EQUIPMENT:</td> <td style="text-align: center;">B - H</td> <td></td> <td style="text-align: center;">4 - SEVERE</td> </tr> </table> B = Eye, Hand/Skin (for normal solvent-welding activities) H = Eye, Hand/Skin, Respiratory Protection and Impermeable Apron (splash/immersion risks)						HMIS	NFPA	HAZARD RATING	HEALTH:	2	2	0 - MINIMAL	FLAMMABILITY:	3	3	1 - SLIGHT	REACTIVITY:	0	1	2 - MODERATE	PROTECTIVE			3 - SERIOUS	EQUIPMENT:	B - H		4 - SEVERE
	HMIS	NFPA	HAZARD RATING																													
HEALTH:	2	2	0 - MINIMAL																													
FLAMMABILITY:	3	3	1 - SLIGHT																													
REACTIVITY:	0	1	2 - MODERATE																													
PROTECTIVE			3 - SERIOUS																													
EQUIPMENT:	B - H		4 - SEVERE																													
SHIPPING INFORMATION FOR CONTAINERS LESS THAN ONE LITER DOT Shipping Name: Consumer Commodity DOT Hazard Class: ORM-D																																
SECTION III - PHYSICAL DATA																																
APPEARANCE Clear, medium syrupy liquid	ODOR Ethereal		BOILING POINT (°F/°C) 151°F (67°C) Based on first boiling component: THF																													
SPECIFIC GRAVITY @ 73°F ± 3.6° (23°C ± 2°) Typical 0.968 ± 0.040	VAPOR PRESSURE (mm Hg.) 143 mm Hg. based on first boiling component, THF @ 68°F (20°C)		PERCENT VOLATILE BY VOLUME (%) Approx: 80 - 90 %																													
VAPOR DENSITY (Air = 1) 2.49	EVAPORATION RATE (BUAC = 1) >1.0		SOLUBILITY IN WATER Solvent portion completely soluble in water. Resin portion separates out.																													
VOC STATEMENT: VOC as manufactured: 850 Grams/Liter (g/l). Maximum VOC emission when applied & tested per SCAQMD Rule 1168, Test Method 316A: 510 g/l																																
SECTION IV - FIRE AND EXPLOSION HAZARD DATA																																
FLASH POINT -4°F (-20°C) T.C.C. Based on THF			FLAMMABLE LIMITS (PERCENT BY VOLUME)				LEL 2	UEL 11.8																								
FIRE EXTINGUISHING MEDIA Ansul "Purple K" potassium bicarbonate dry chemical, any appropriately sized ABC dry chemical, carbon dioxide or foam extinguisher can be used for small fires. Use of a water fog by trained personnel can extinguish small/large fires.																																
SPECIAL FIRE FIGHTING PROCEDURES Evacuate enclosed areas. Stay upwind. Close quarters or confined spaces require self-contained breathing apparatus, positive pressure hose masks or airline masks. Use of a water fog by trained personnel can extinguish small/large fires and avoid water flow or water streams/spray distributing burning material or contaminated water over a large area or into sewers or storm drains. Use water spray to cool containers, to flush spills from source of ignition and to disperse vapors.																																
UNUSUAL FIRE AND EXPLOSION HAZARDS Fire hazard because of low flash point and high volatility. Vapors are heavier than air and may travel to source(s) of ignition at or near ground or lower level(s) and flash back.																																

SECTION V - HEALTH HAZARD DATA

PRIMARY ROUTES

OF ENTRY: ☒ Inhalation ☒ Skin Contact ☐ Eye Contact ☐ Ingestion

EFFECT OF OVEREXPOSURE

ACUTE:

Inhalation:

Severe overexposure may result in nausea, dizziness, headache. Can cause drowsiness, irritation of eyes and nasal passages.

Skin Contact:

Skin irritant. Liquid contact may remove natural skin oils resulting in skin irritation. Dermatitis may occur with prolonged contact.

Skin Absorption:

Prolonged or widespread exposure may result in the absorption of harmful amounts of material.

Eye Contact:

Overexposure may result in severe eye injury with corneal or conjunctival inflammation on contact with the liquid. Vapors slightly uncomfortable.

Ingestion:

Moderately toxic. May cause nausea, vomiting, diarrhea. May cause mental sluggishness.

CHRONIC:

Symptoms of respiratory tract irritation and damage to respiratory epithelium were reported in rats exposed to 5000 ppm THF for 90 days.

Elevation of SGPT suggests a disturbance in liver function. The NOEL was reported to be 200 ppm.

REPRODUCTIVE EFFECTS	TERATOGENICITY	MUTAGENICITY	EMBRYOTOXICITY	SENSITIZATION TO PRODUCT	SYNERGISTIC PRODUCTS
N. AP.	N. AP.	N. AP.	N. AP.	N. AP.	N. AV.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: Individuals with pre-existing diseases of the eyes, skin or respiratory system may have increased susceptibility to the toxicity of excessive exposures.

EMERGENCY AND FIRST AID PROCEDURES

Inhalation:

If overcome by vapors, remove to fresh air and if breathing stopped, give artificial respiration. If breathing is difficult, give oxygen. Call physician.

Eye Contact:

Flush eyes with plenty of water for 15 minutes and call a physician.

Skin Contact:

Remove contaminated clothing and shoes. Wash skin with plenty of soap and water for at least 15 minutes. If irritation develops, get medical attention.

Ingestion:

Give 1 or 2 glasses of water or milk. Do not induce vomiting. Call physician or poison control center immediately.

SECTION VI - REACTIVITY

STABILITY

UNSTABLE

STABLE

CONDITIONS TO AVOID

Keep away from heat, sparks, open flame and other sources of ignition.

INCOMPATIBILITY

(MATERIALS TO AVOID) Caustics, ammonia, inorganic acids, chlorinated compounds, strong oxidizers and isocyanates.

HAZARDOUS DECOMPOSITION PRODUCTS

When forced to burn, this product gives out carbon monoxide, carbon dioxide, hydrogen chloride and smoke.

HAZARDOUS

MAY OCCUR

CONDITIONS TO AVOID

POLYMERIZATION

WILL NOT OCCUR

X

Keep away from heat, sparks, open flame and other sources of ignition.

SECTION VII - SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

Eliminate all ignition sources. Avoid breathing of vapors. Keep liquid out of eyes. Flush with large amount of water. Contain liquid with sand or earth. Absorb with sand or nonflammable absorbent material and transfer into steel drums for recovery or disposal. Prevent liquid from entering drains.

WASTE DISPOSAL METHOD

Follow local, State and Federal regulations. Consult disposal expert. Can be disposed of by incineration. Excessive quantities should not be permitted to enter drains. Empty containers should be air dried before disposing. Hazardous Waste Code (CA): 214.

SECTION VIII - SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type)

Atmospheric levels should be maintained below established exposure limits contained in Section II. If airborne concentrations exceed those limits, use of a NIOSH approved organic vapor cartridge respirator with full face-piece is recommended. The effectiveness of an air purifying respirator is limited. Use it only for a single short-term exposure. For emergency and other conditions where short-term exposure guidelines may be exceeded, use an approved positive pressure self-contained breathing apparatus.

VENTILATION

Use only with adequate ventilation. Do not use in close quarters or confined spaces. Open doors and/or windows to ensure airflow and air changes. Use local exhaust ventilation to remove airborne contaminants from employee breathing zone and to keep contaminants below levels listed in Section II. Use only explosion-proof ventilation equipment.

PROTECTIVE GLOVES

PVA coated rubber gloves for frequent dipping/immersion. Use of latex/nitrile surgical gloves or solvent resistant barrier creme should provide adequate protection when normal solvent-cement welding practices and procedures are used for solvent welding of plastic sheet/pipe joints.

EYE PROTECTION

Splashproof chemical goggles, face shield, safety glasses (spectacles) with brow guards & side shields, etc. as appropriate for exposure.

OTHER PROTECTIVE EQUIPMENT AND HYGIENIC PRACTICES

Impervious apron and a source of running water to flush or wash the eyes and skin in case of contact.

SECTION IX - SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

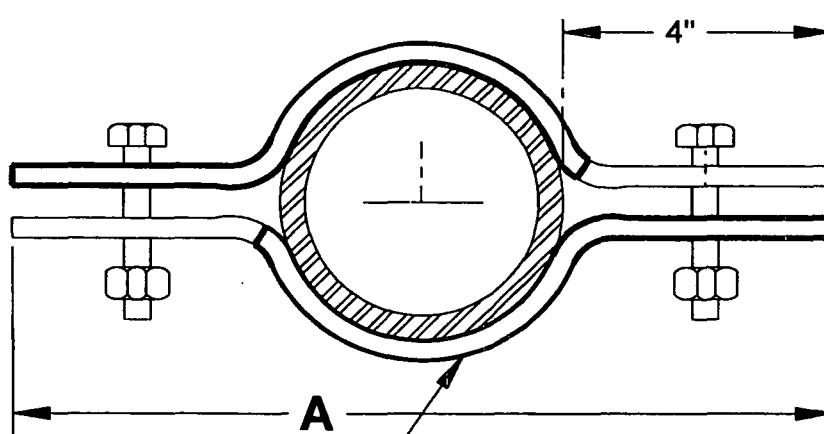
Store in the shade between 40°F - 110°F (5°C - 43.7°C). Keep away from heat, sparks, open flame and other sources of ignition. Avoid prolonged breathing of vapor. Use with adequate ventilation. Avoid contact with eyes, skin and clothing. Train employees on all special handling procedures before they work with this product.

OTHER PRECAUTIONS

Follow all precautionary information given on container label, product bulletins and our solvent cementing literature. All material handling equipment should be electrically grounded.

The information contained herein is based on data considered accurate. However, no warranty is expressed or implied regarding the accuracy of this data or the results to be obtained from the use thereof.

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VINYL COAT .05 THK

SIZE	A	STOCK	BOLT
1/2	9.00	1/8 X 1.00	5/16 X 1.25
3/4	9.40	1/8 X 1.00	5/16 X 1.25
1	9.50	1/8 X 1.00	5/16 X 1.25
1-1/4	10.00	1/8 X 1.00	5/16 X 1.25
1-1/2	10.50	5/32 X 1.00	5/16 X 1.25
2	11.00	5/32 X 1.00	3/8 X 1.50
2-1/2	11.50	1/4 X 1.00	3/8 X 1.50
3	11.50	1/4 X 1.00	3/8 X 1.50
4	13.00	1/4 X 1.00	7/16 X 1.50
5	14.00	1/4 X 1.25	1/2 X 2.00
6	15.00	1/4 X 1.50	1/2 X 2.00
8	18.50	3/8 X 1.50	5/8 X 2.50
10	21.00	3/8 X 2.00	5/8 X 2.50
12	23.00	1/2 X 2.00	5/8 X 2.50

UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES
TOLERANCES ARE:
FRACTIONS DECIMALS ANGLES
+/- 1/8 .XX +/- .03 .XX + 1
.XXX +/- .01

MATERIAL

CQ STEEL

CAD GENERATED DRAWING.
DO NOT MANUALLY UPDATE

APPROVALS	DATE
DRAWN EG	
CHECKED SB	

4/05

GREENFIELD MFG CO

920 LEVICK ST, PHILA., PA. 19111

P/N PLASTIC RISER CLAMP

A FIG 107

REV.

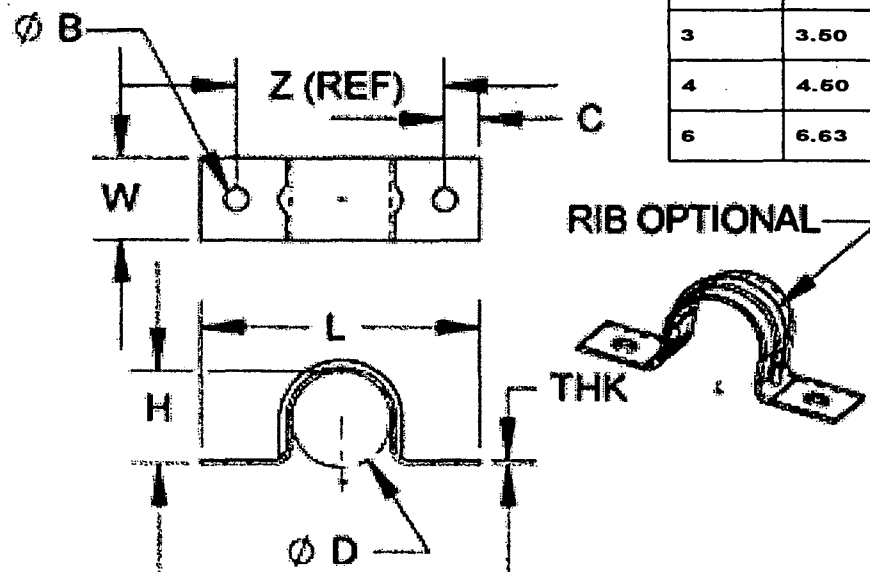
DO NOT SCALE DRAWING

SCALE CAD FILE: 107.SLDDRW

SHEET OF



Size	D	H	THK	W	L	B	C	Z (ref)
Tol.	0.06	.03	US Gage	.12	.25	.032	.06	.06
	-0.02	-.06		-.03	-.12	-.016	-.03	-.06
3/8	0.69	0.68	20 Ga.	0.76	2.38	0.200	0.38	1.62
1/2	0.84	0.84	20 Ga.	0.76	2.62	0.200	0.38	1.80
3/4	1.05	1.05	19 Ga.	0.76	2.75	0.200	0.38	2.06
1	1.31	1.31	18 Ga.	1.00	3.40	0.281	0.38	2.62
1 1/4	1.66	1.66	16 Ga.	1.00	4.26	0.281	0.60	3.25
1 1/2	1.90	1.90	16 Ga.	1.00	4.20	0.281	0.60	3.44
2	2.38	2.38	14 Ga.	1.00	5.06	0.281	0.66	4.21
2 1/2	2.88	2.88	13 Ga.	1.00	6.31	0.340	0.76	4.88
3	3.50	3.50	13 Ga.	1.00	7.30	0.340	0.76	6.88
4	4.50	4.60	12 Ga.	1.00	8.38	0.340	0.76	7.12
6	6.63	6.60	12 Ga.	1.26	11.12	0.340	0.81	9.60



Greenfield Mfg Co Inc

920 Levick Street, Philadelphia PA. 19111-5498

Material
STEEL

GALVANIZED PIPE STRAP

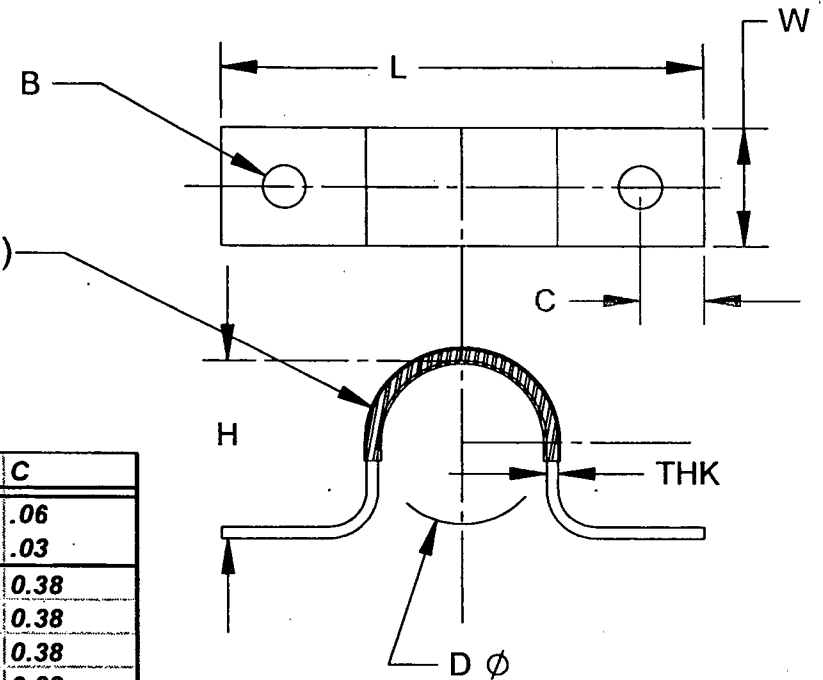
Finish
GALV.

FIG. 600

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THIS AREA
VINYL COAT
.05 THK (BLACK)

SIZE	D	H	Thk	W	L	B	C
+Tol	.06	.03	U S	.12	.25	.032	.06
-Tol	.02	.06	Gage	.03	.12	.015	.03
3/8	.69	.68	20 Ga	.75	2.38	.200	0.38
1/2	.84	.84	20 Ga	.75	2.62	.200	0.38
3/4	1.05	1.05	19 Ga	.75	2.75	.200	0.38
1	1.31	1.31	18 Ga	.75	3.40	.281	0.38
1-1/4	1.66	1.66	16 Ga	1.0	4.25	.281	0.50
1-1/2	1.90	1.90	14 Ga	1.0	4.20	.281	0.50
2	2.38	2.38	14 Ga	1.0	5.00	.281	0.66
2-1/2	2.88	2.88	13 Ga	1.0	6.31	.340	0.75
3	3.50	3.50	13 Ga	1.0	7.30	.340	0.75
4	4.50	4.50	12 Ga	1.0	8.50	.340	0.75



UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES
TOLERANCES ARE:

FRACTIONS DECIMALS ANGLES
+/- 1/8 .XX +/- .03 .XX + 1
.XXX +/- .01

MATERIAL

**PRE GALVANIZED
SHEET STEEL**

CAD GENERATED DRAWING.
DO NOT MANUALLY UPDATE

APPROVALS DATE
DRAWN EG
CHECKED SB

GREENFIELD MFG CO

920 LEVICK ST, PHILA., PA. 19111

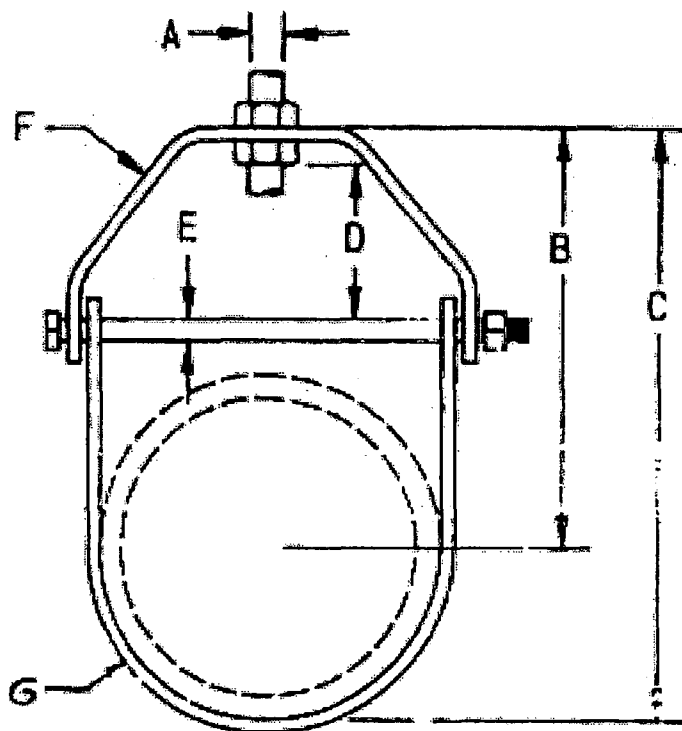
P/N **PIPE STRAP, COATED**

A **FIG 603** REV.

DO NOT SCALE DRAWING

SCALE CAD FILE: SHEET OF

8 7 6 5 4 3 2 1



Size	A	B	C	D	E	F-Top	G-Bottom
1/2"	3/8"	1.5	2.0	0.62	1/4"	16ga x .75	16ga x .75
3/4"	3/8"	1.8	2.3	0.62	1/4"	16ga x .75	16ga x .75
1"	3/8"	2.2	2.8	0.88	1/4"	16ga x 1	16ga x 1.0
1.25"	3/8"	2.5	3.7	1.20	1/4"	16ga x 1	16ga x 1.0
1.5"	3/8"	2.8	4.0	1.20	1/4"	16ga x 1	16ga x 1.0
2"	3/8"	2.8	4.5	1.20	1/4"	14ga x 1	14ga x 1.0
2.5"	3/8"	3.8	6.0	2.00	1/4"	12ga x 1	13ga x 1.0
3"	3/8"	4.0	6.5	2.00	1/4"	12ga x 1	13ga x 1.0
4"	3/8"	4.7	7.0	2.00	5/16"	11ga x 1.25	12ga x 1.25

Greenfield Mfg Co Inc

920 Levick Street, Philadelphia PA. 19111-5498

Material
Steel

Clevis - Light

Finish
None

FIG. NO: 104

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APPROVALS:

LISTED

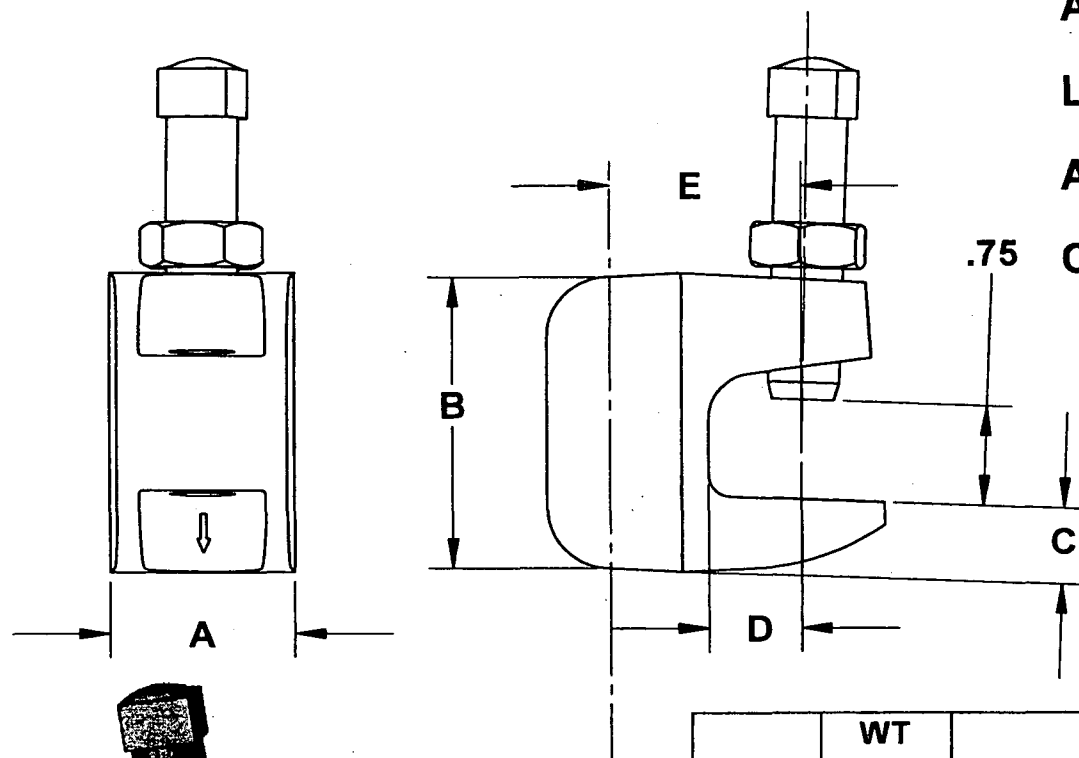
FM

APPROVED

UL

COMPLIES WITH MSS SP-58 TYPE 19

SEE MSS SP-69 FOR PROPER SET SCREW RECOMMENDATIONS



ROD SIZE	WT PER 100 PCS	MAX REC LOAD	CTN QTY	A	B	C	D	E
3/8	28	350#	100	.88	1.50	.31	.50	1.00
1/2	34	470#	100	.88	1.50	.31	.50	1.00
5/8	42	550#	50	1.12	1.75	.34	.63	1.37
3/4	80	700#	50	1.37	1.87	.41	.63	1.37
7/8	84	1000#	25	1.37	1.87	.41	.63	1.37

UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES
TOLERANCES ARE:
FRACTIONS DECIMALS ANGLES
+/- 1/8 .XX +/- .03 .XX + 1
.XXX +/- .01

MATERIAL

DUCTILE IRON

DO NOT SCALE DRAWING

CAD GENERATED DRAWING.
DO NOT MANUALLY UPDATE

APPROVALS

DATE

DRAWN EG

CHECKED SB

GREENFIELD MFG CO

920 LEVICK ST, PHILA., PA. 19111

JUNIOR
TOP BEAM CLAMP

FIG 125

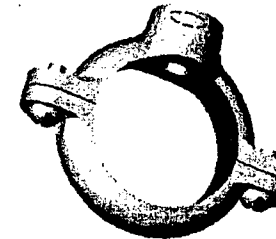
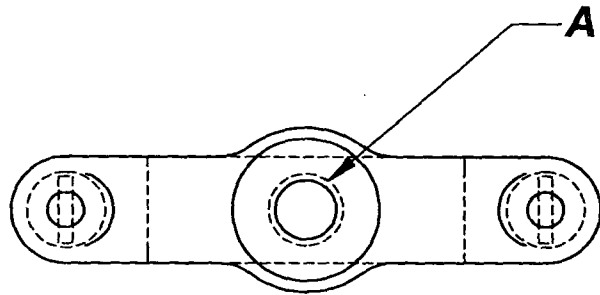
REV.

SCALE

CAD FILE:

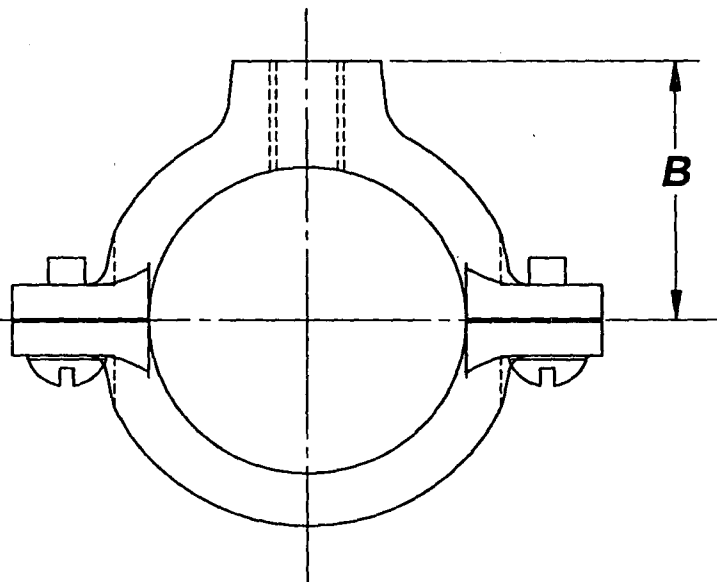
SHEET OF

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FOR IRON PIPE

PIPE SIZE	A	B	WT / C APPROX	MAX REC LOAD
3/8	3/8	0.69	10	180
1/2	3/8	0.82	10	180
3/4	3/8	0.94	12	180
1	3/8	1.06	14	180
1-1/4	3/8	1.23	19	180
1 - 1/2	3/8	1.31	21	180
2	3/8	1.62	30	180



USE FIG 385
FOR SIZES 2-1/2 THRU 4

COMPLIES WITH WWH-171D TYP 25

UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES
TOLERANCES ARE:
FRACTIONS DECIMALS ANGLES
+/- 1/8 .XX +/- .03 .XX + 1
.XXX +/- .01

MATERIAL

DUCTILE IRON

DO NOT SCALE DRAWING

CAD GENERATED DRAWING,
DO NOT MANUALLY UPDATE

APPROVALS	DATE
DRAWN EG	11/05
CHECKED SB	11/05

GREENFIELD MFG CO

920 LEVICK ST, PHILA., PA. 19111

P/N **SPLIT RING HANGER**

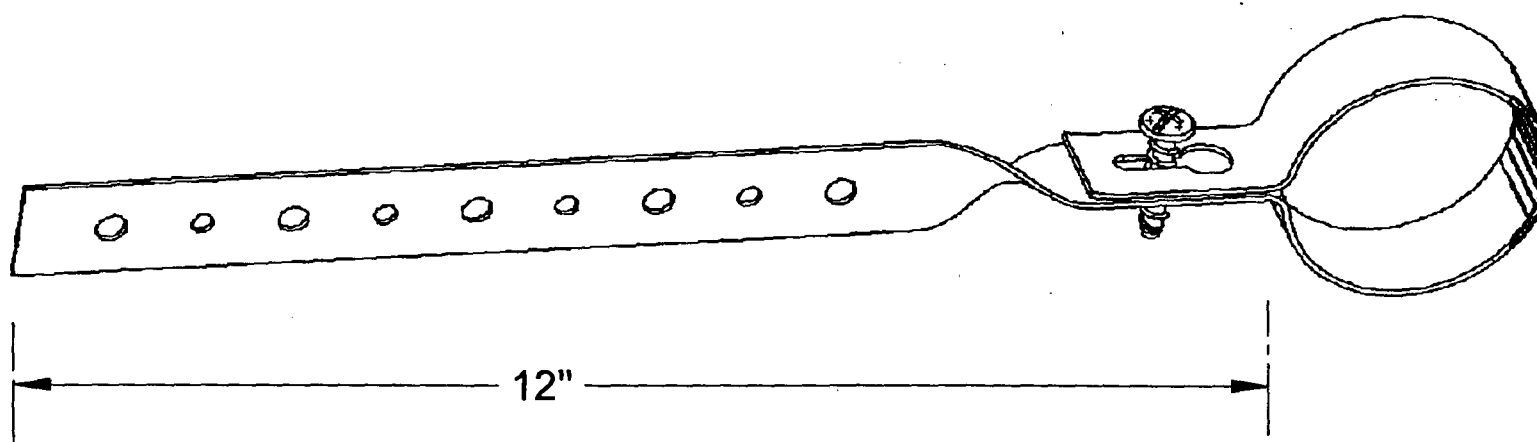
FIG 202

REV.

SCALE CAD FILE: **202.SLDDRW**

SHEET OF

SIZE	MATERIAL
1-1/2	18 GA X 3/4
2	18 GA X 3/4
3	16 GA X 3/4
4	16 GA X 3/4



MAXIMUM REC LOAD
 150 LBS
 SAFTEY FACTOR = 4

MATERIAL		Greenfield Mfg Co 920 Levick St , Phila.,Pa. 19111-5498	
GALV. STEEL			
FINISH	TOLERANCES	Dr. EG Chk. SB Appr. sb Date 4/10/03	DWV HANGER (UNCOATED)
NONE	XXX XX FR		
		FSCM 98320	P/N FIG - 120

ATTACHMENT

10

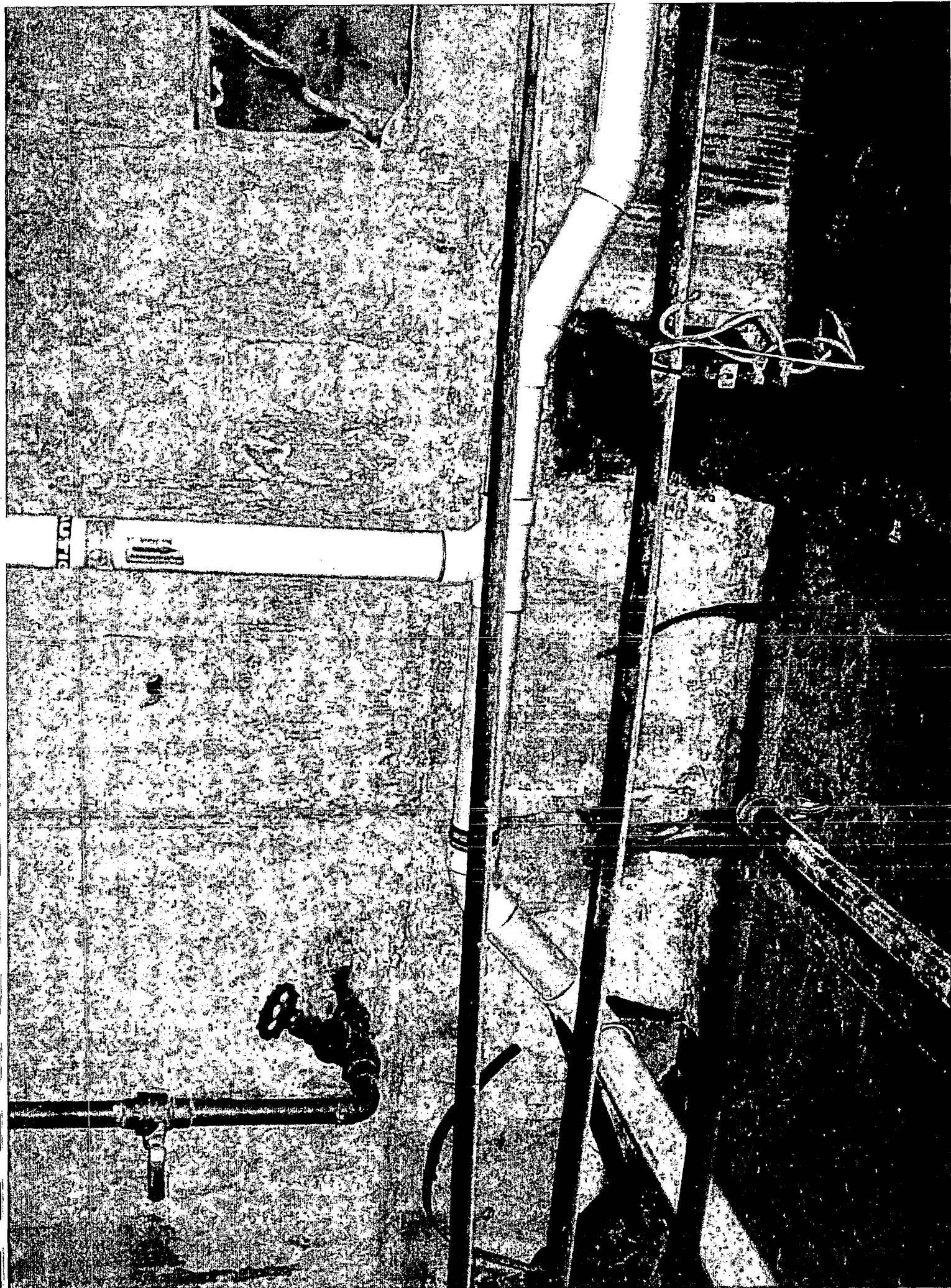
WASH 'N' DRY

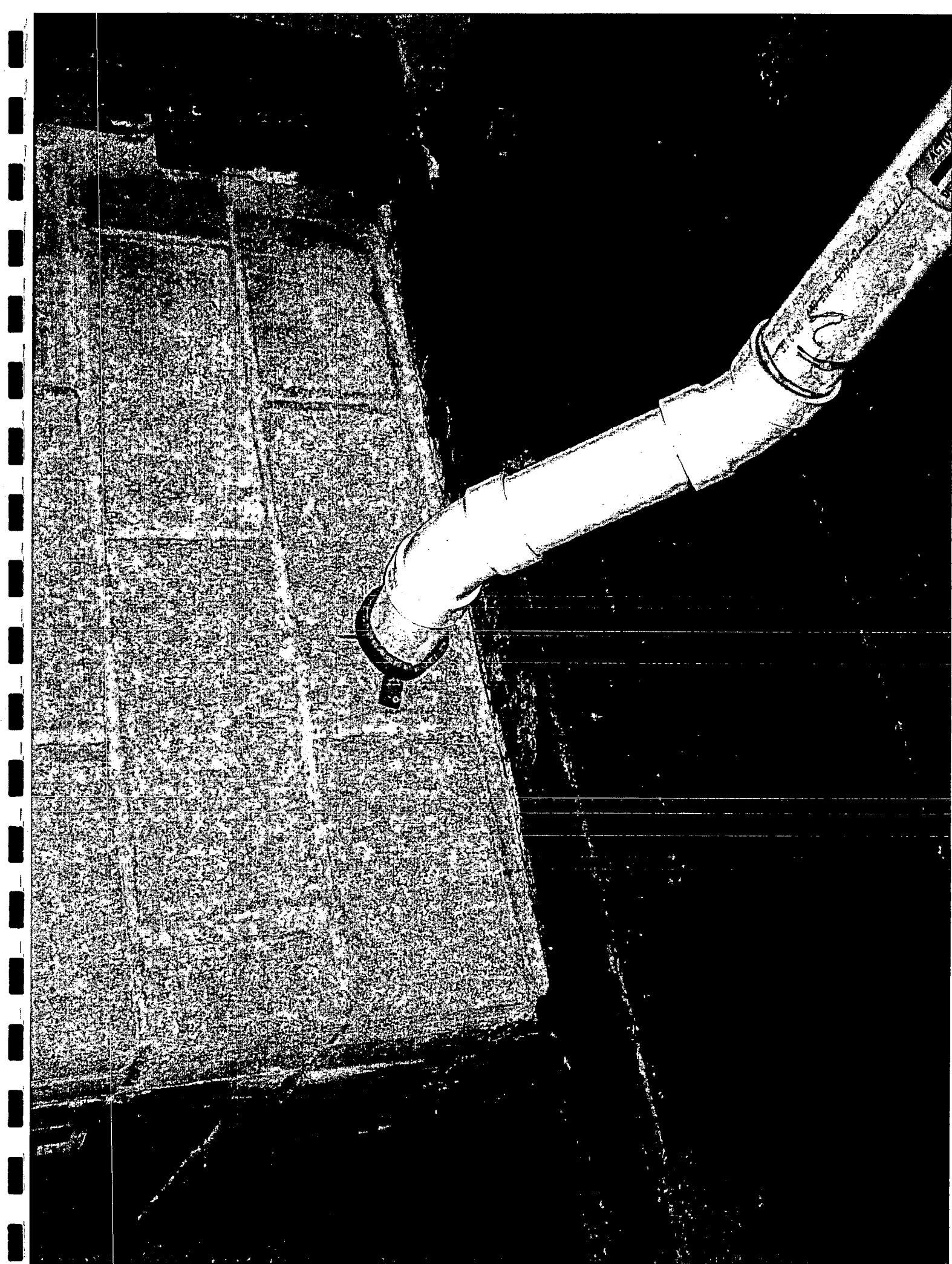
FITNESS • Badminton • Squash
KICKBOXING • Judo • Wrestling
• Taekwondo • Karate • Jujitsu
• Aikido • Kung Fu • Tai Chi
• Martial Arts • Fitness • Pilates
• Yoga • Zumba • Aerobics
• Strength Training • Personal Training
• Group Classes • Private Sessions
• Open House • Free Trial Class
• 914-734-7467

Authentic
Okinawan
Martial Arts
KARATE • Children • Adults
914-734-7467

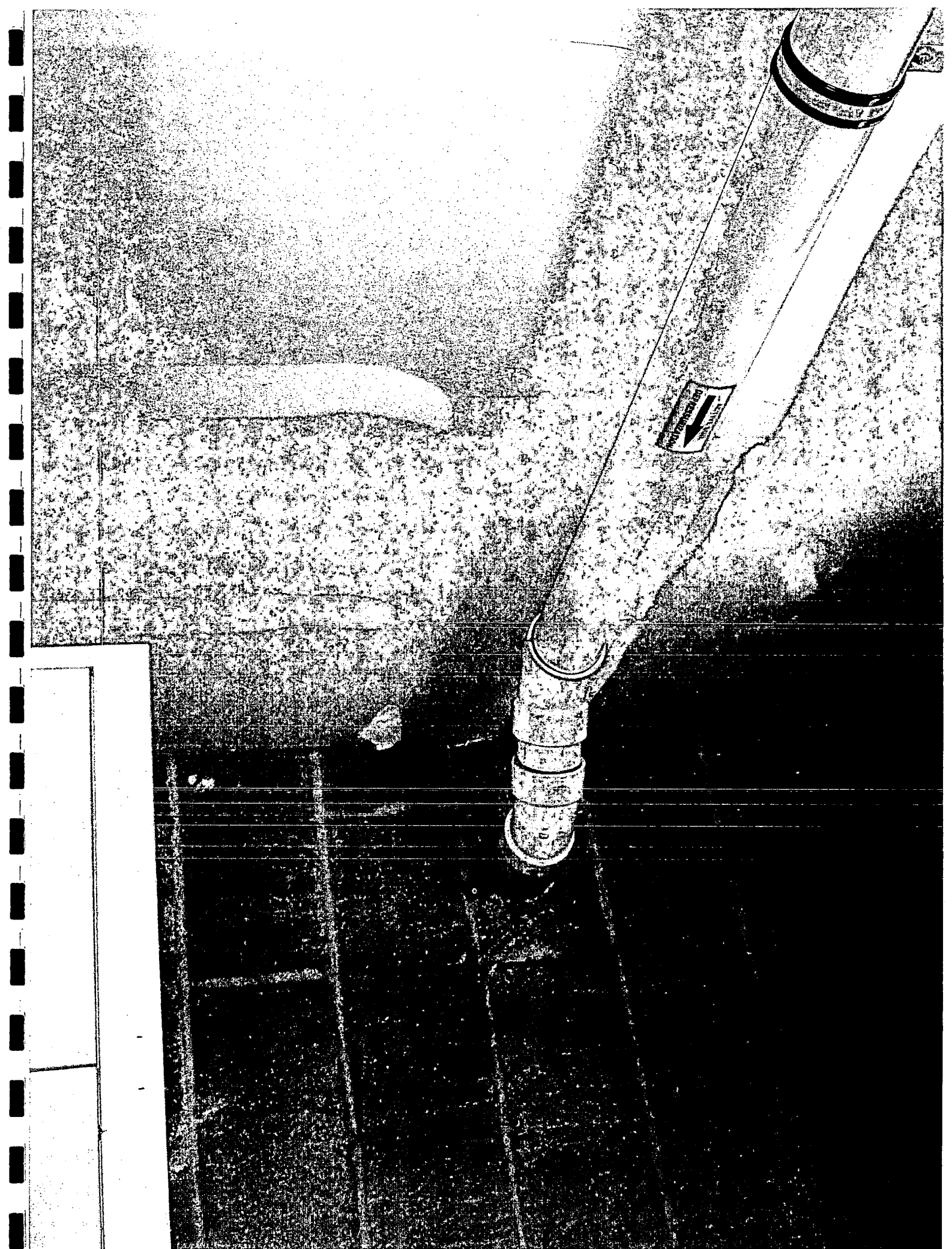
CHEVROLET

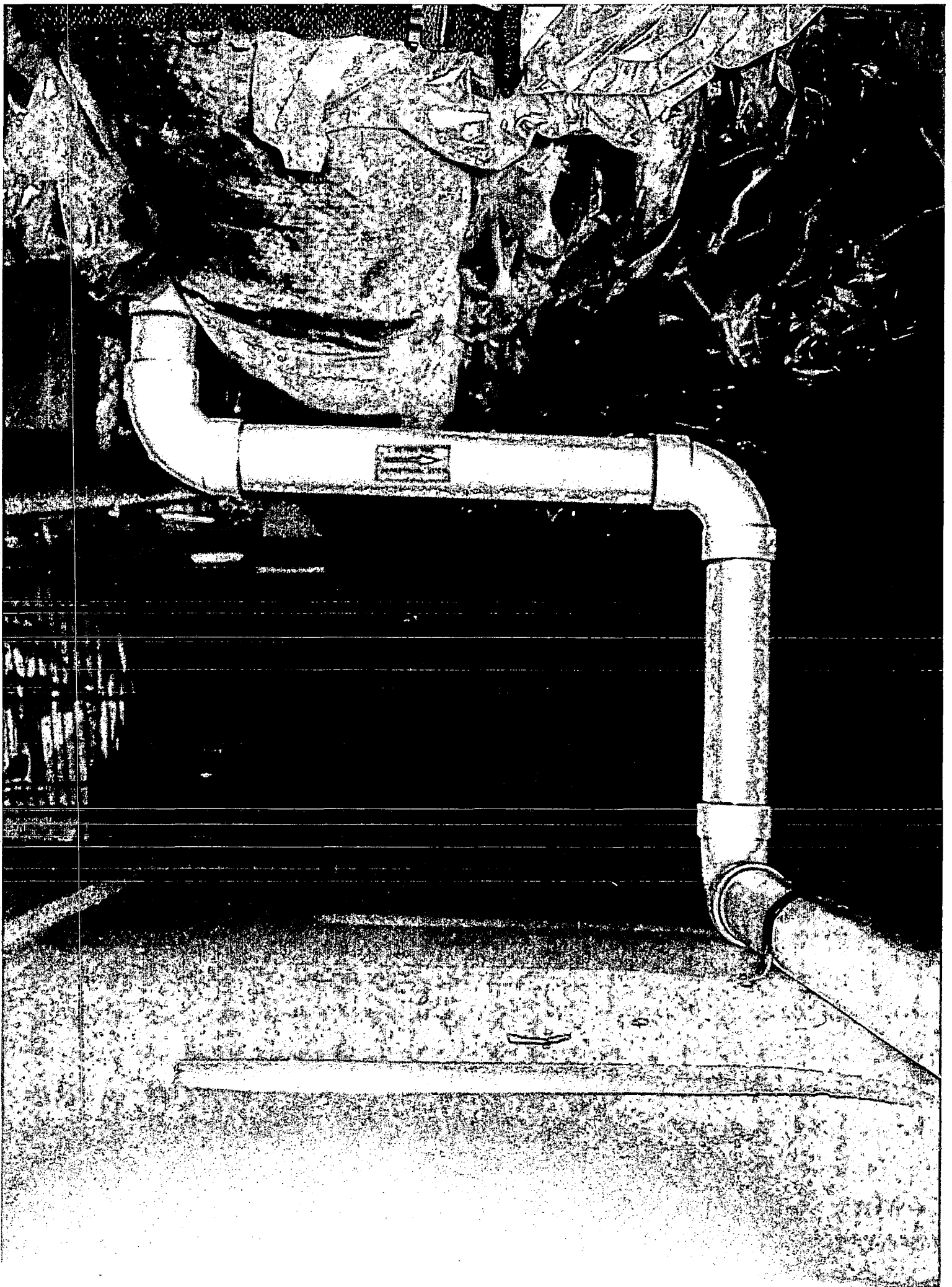


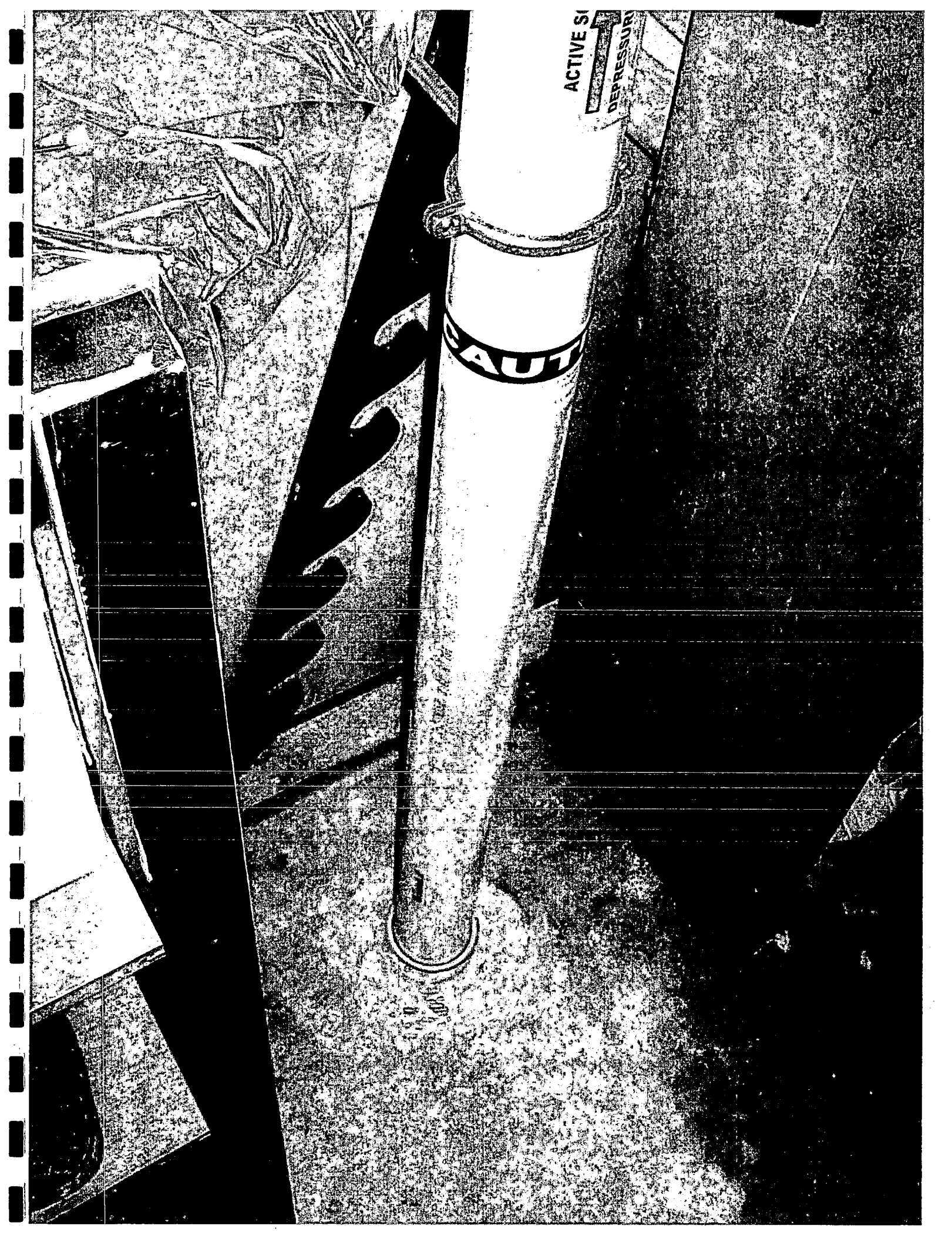


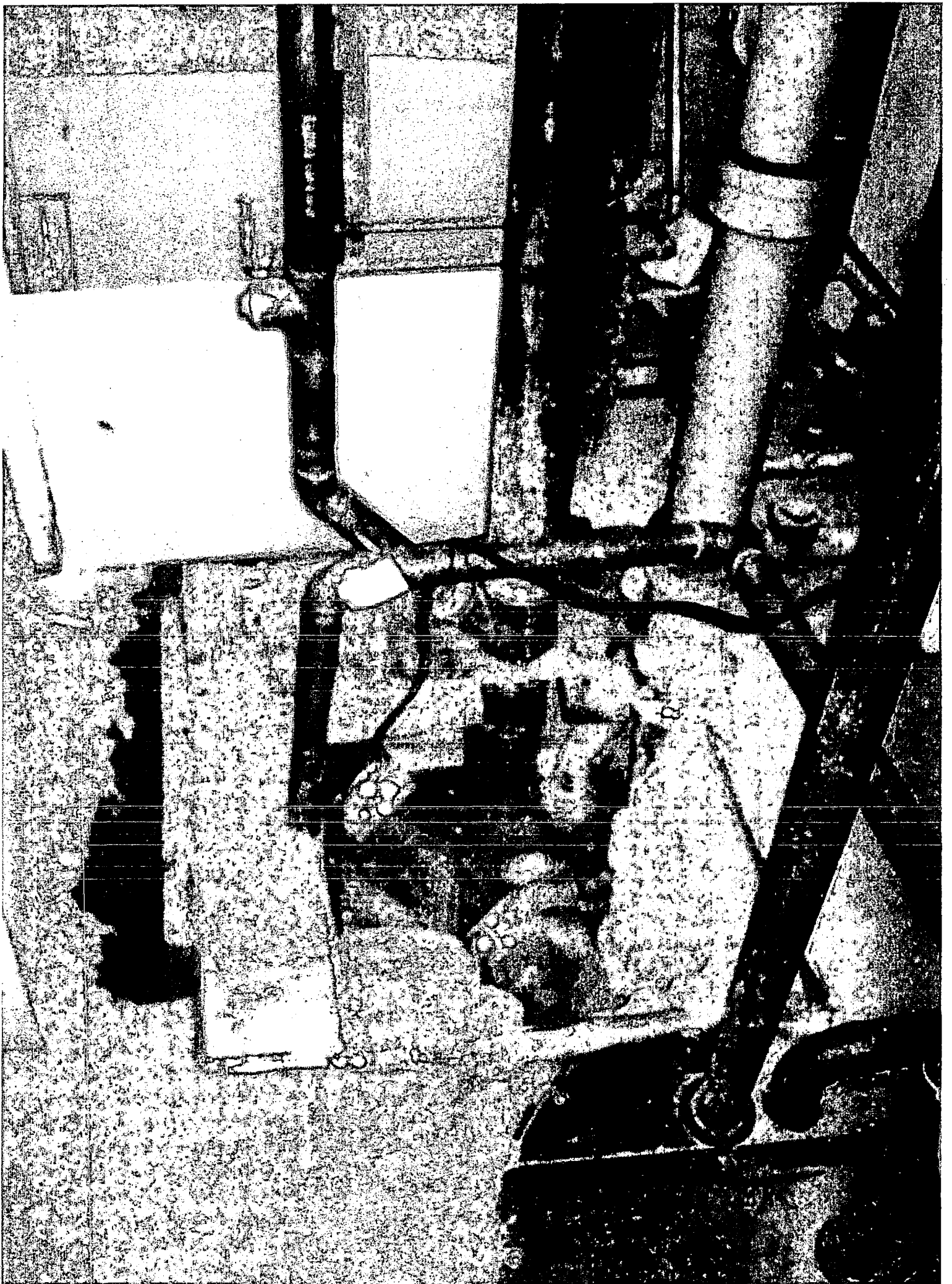




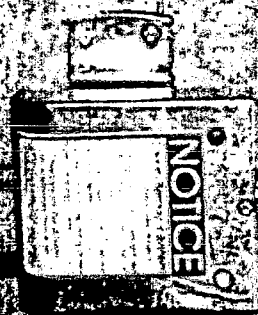
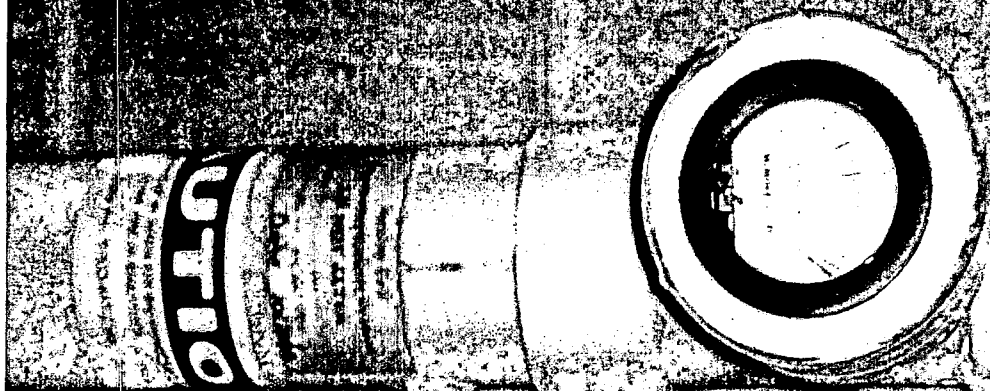


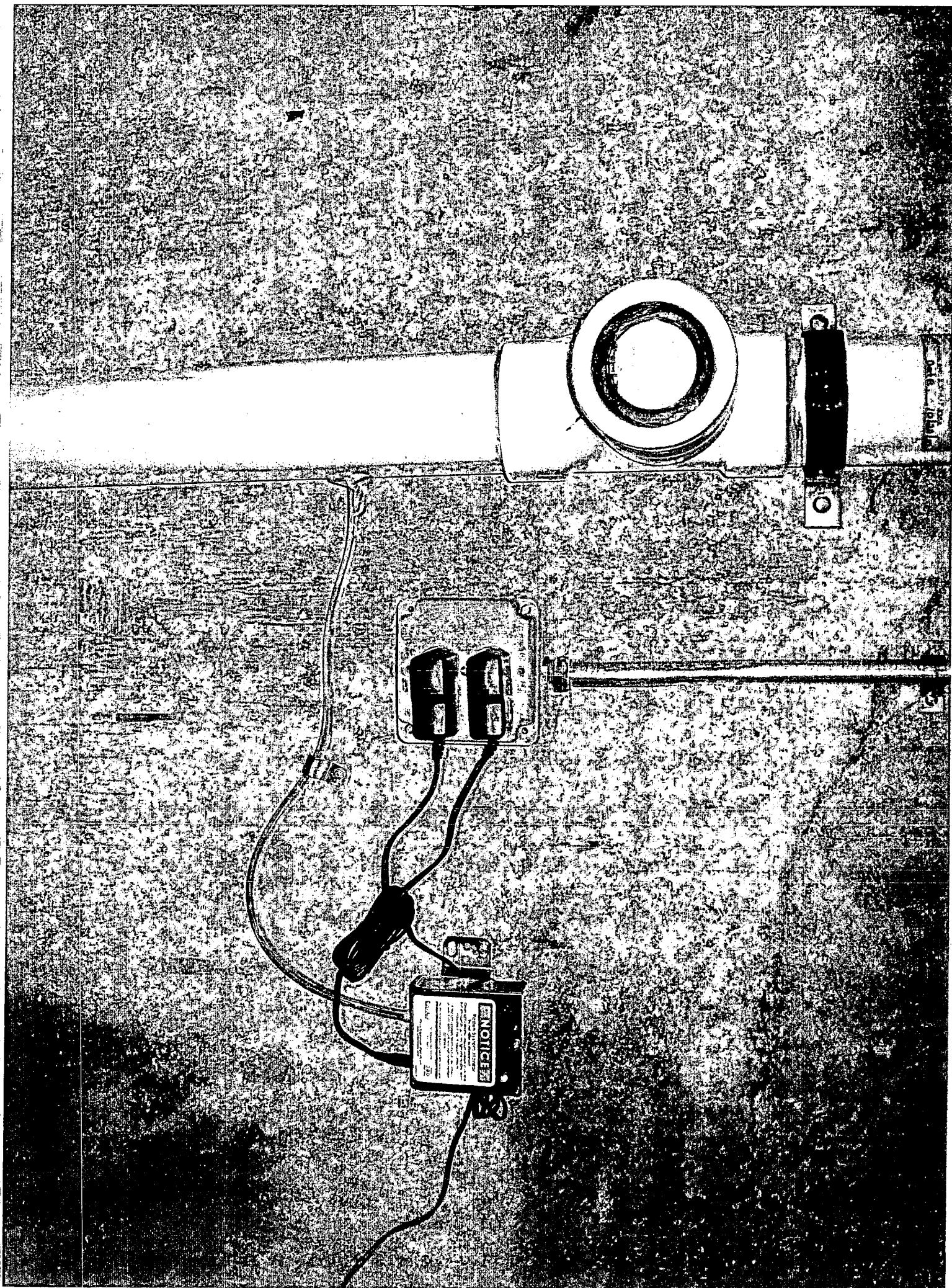


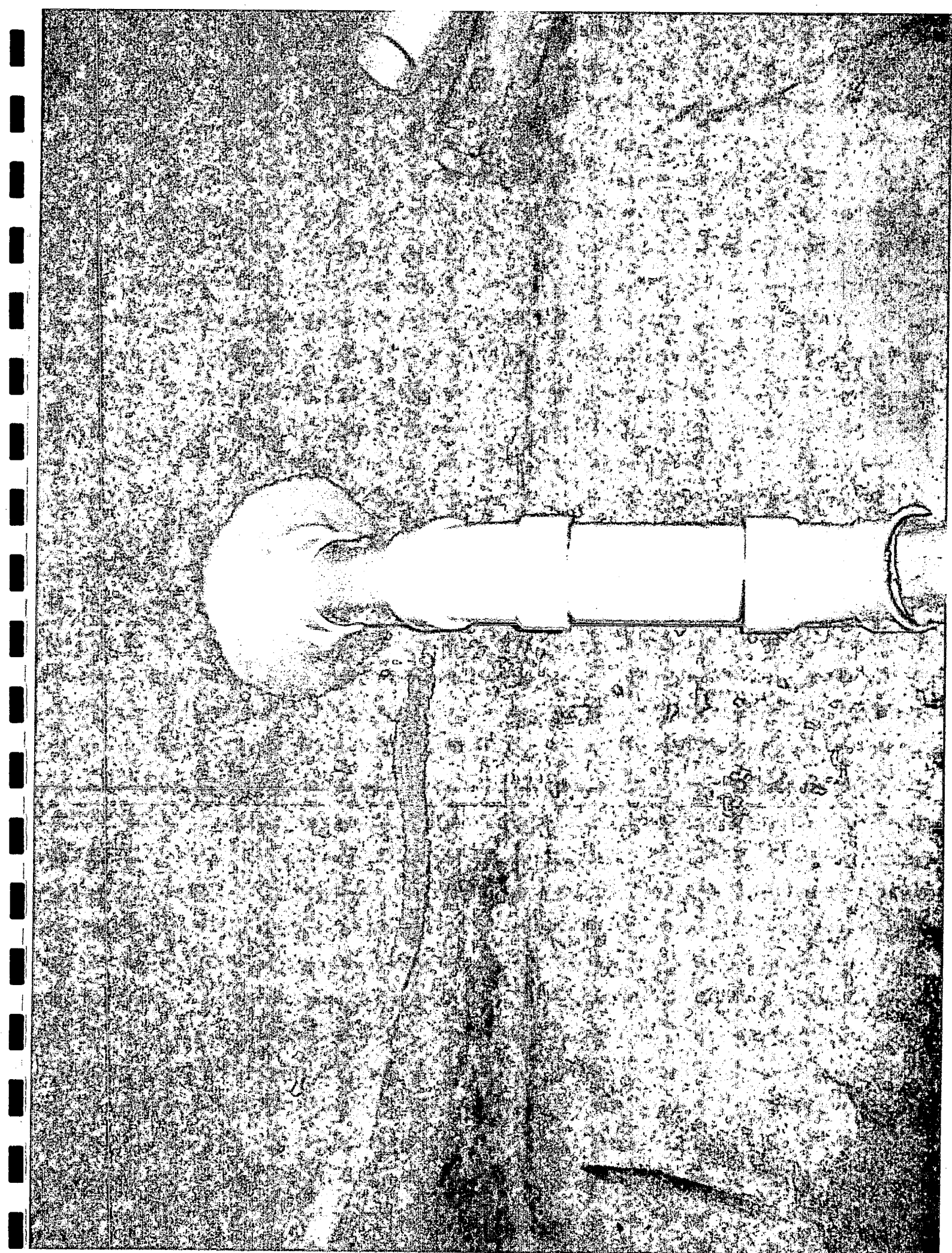


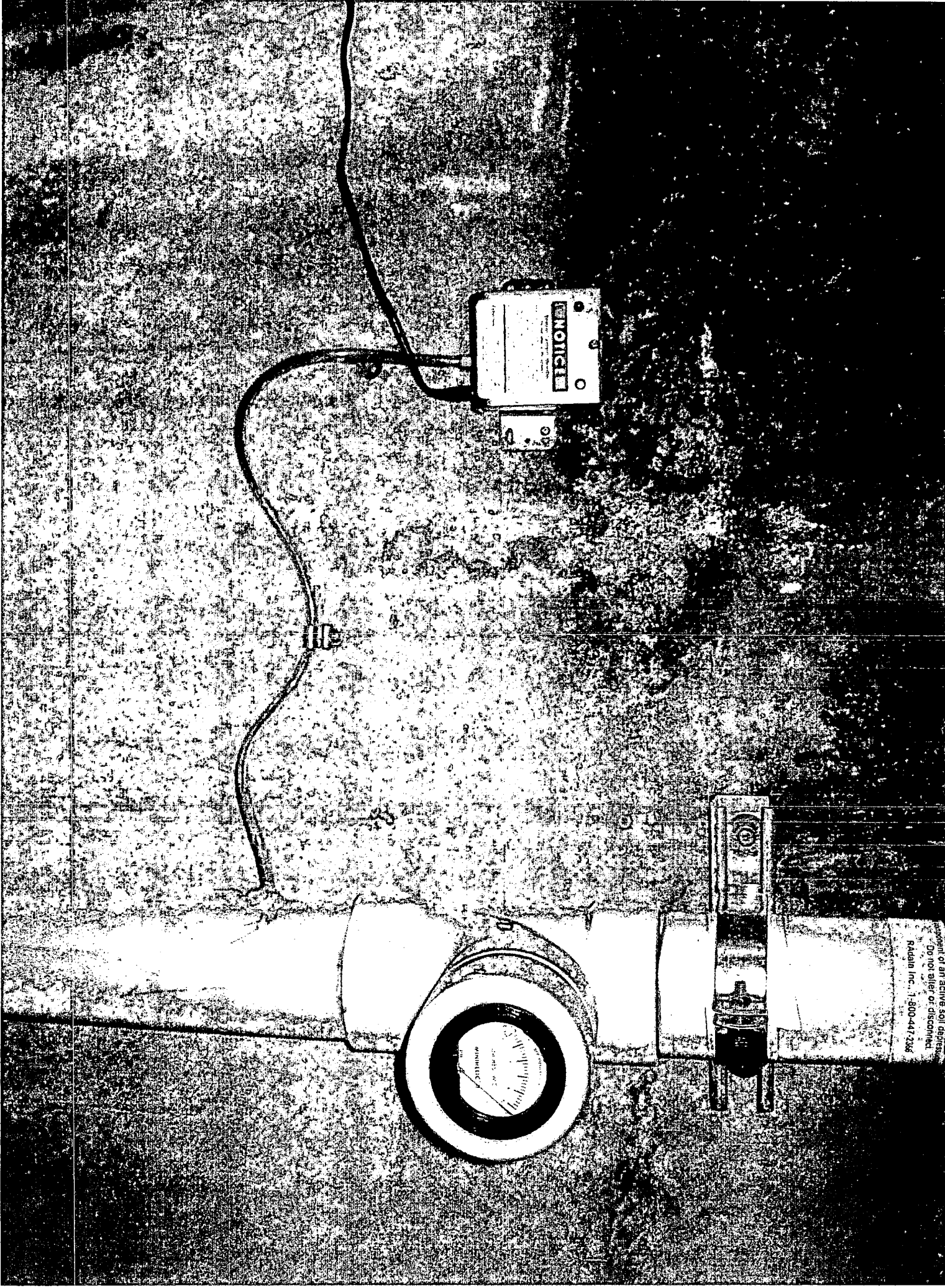




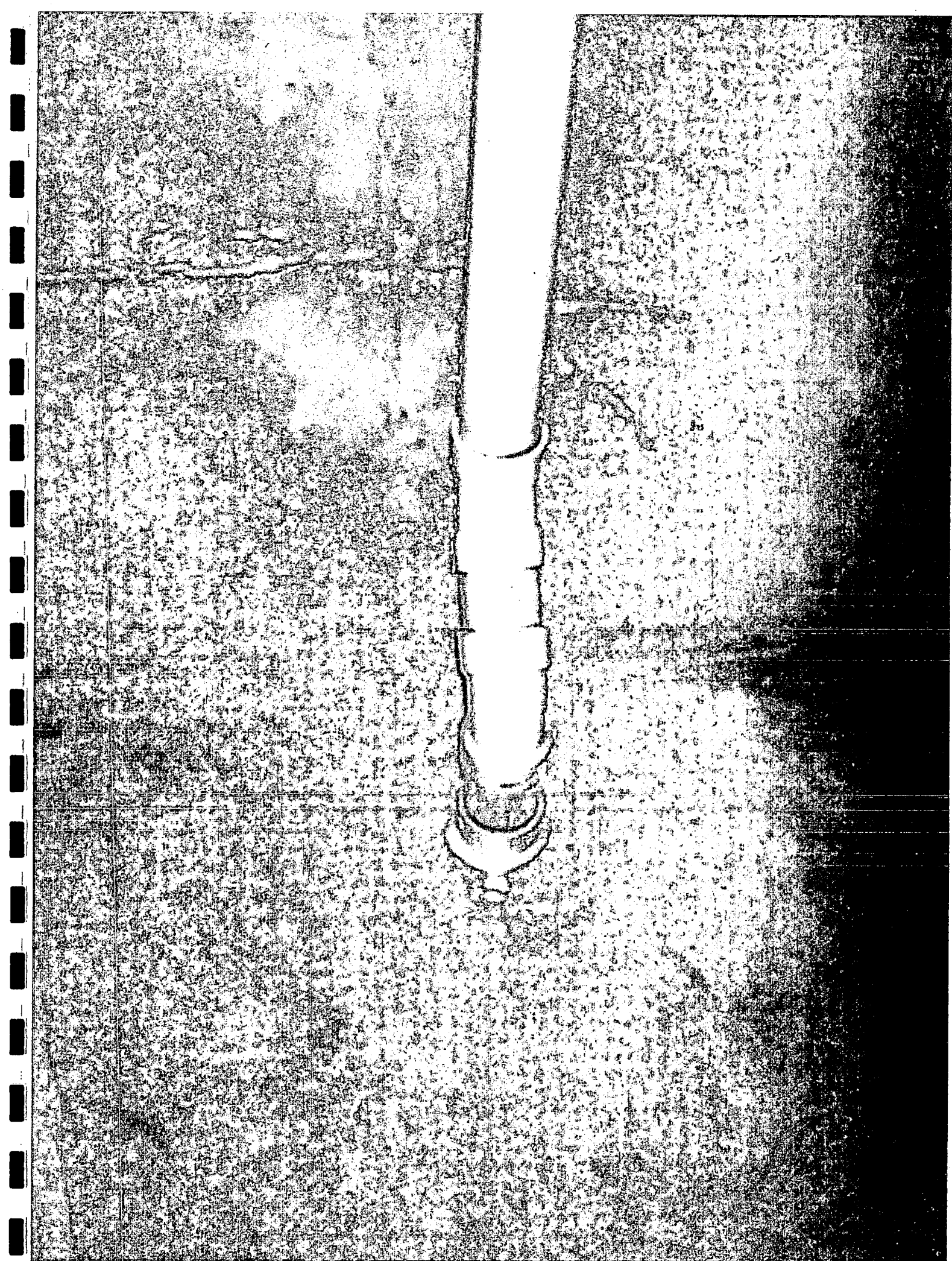


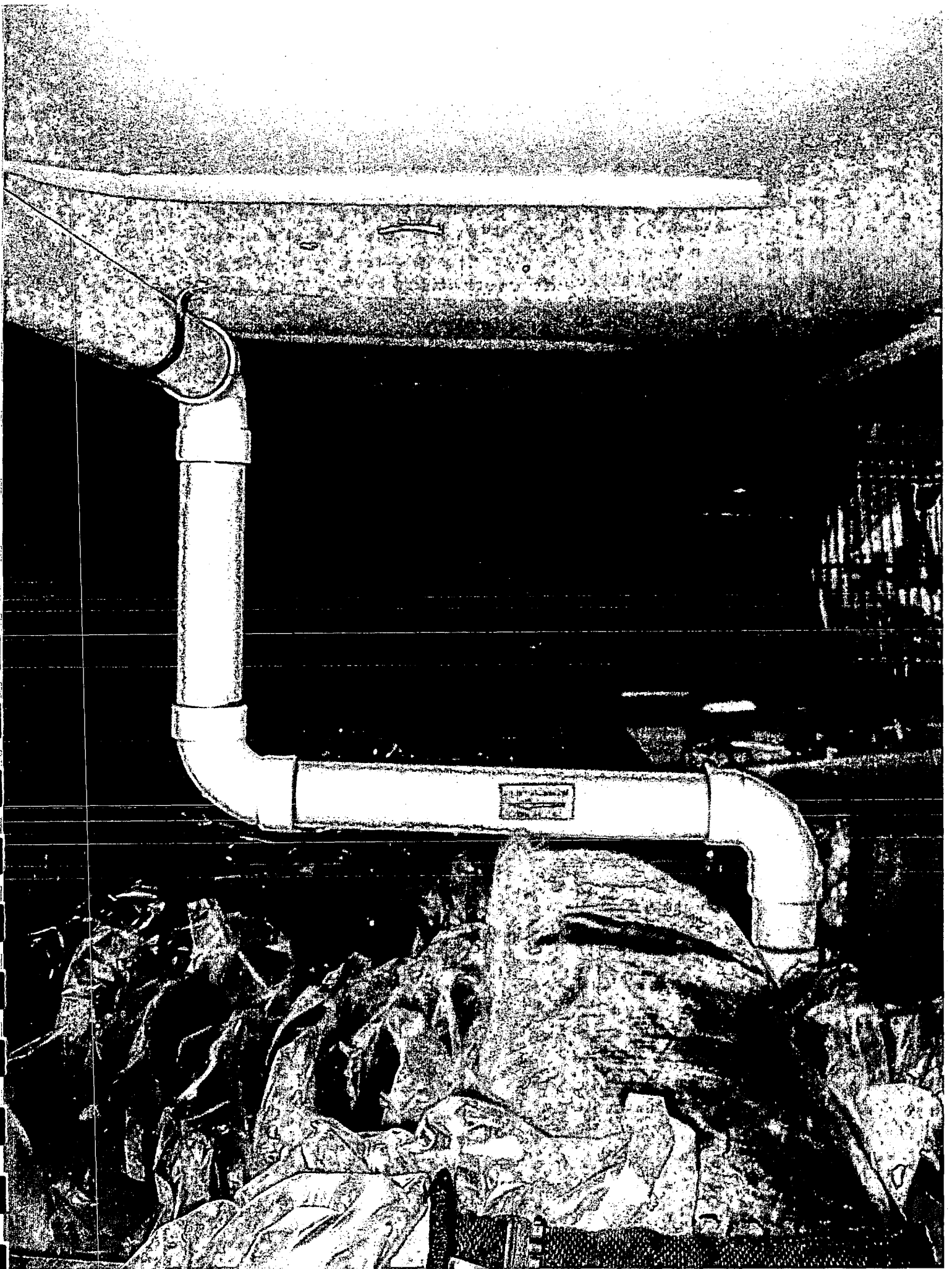


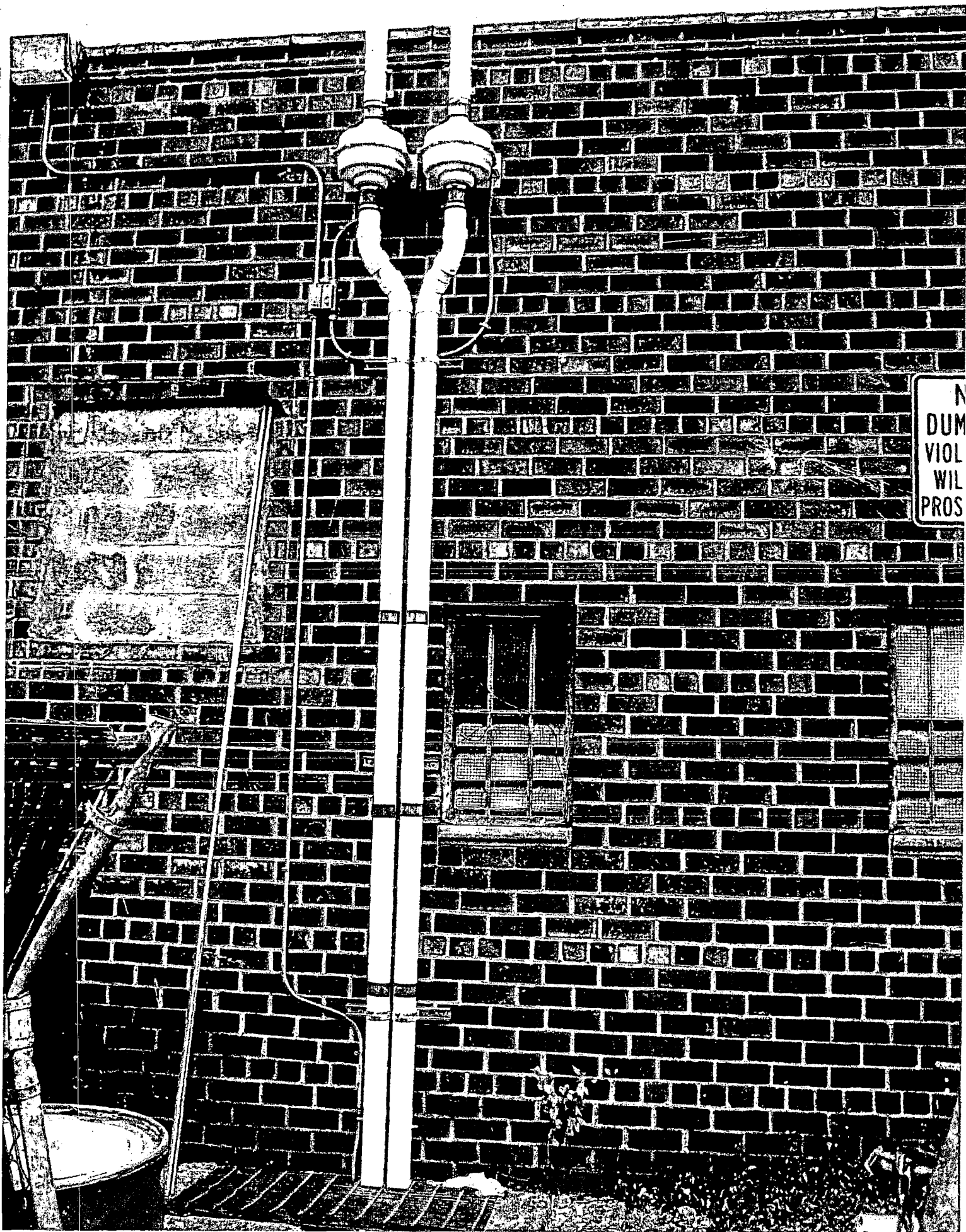




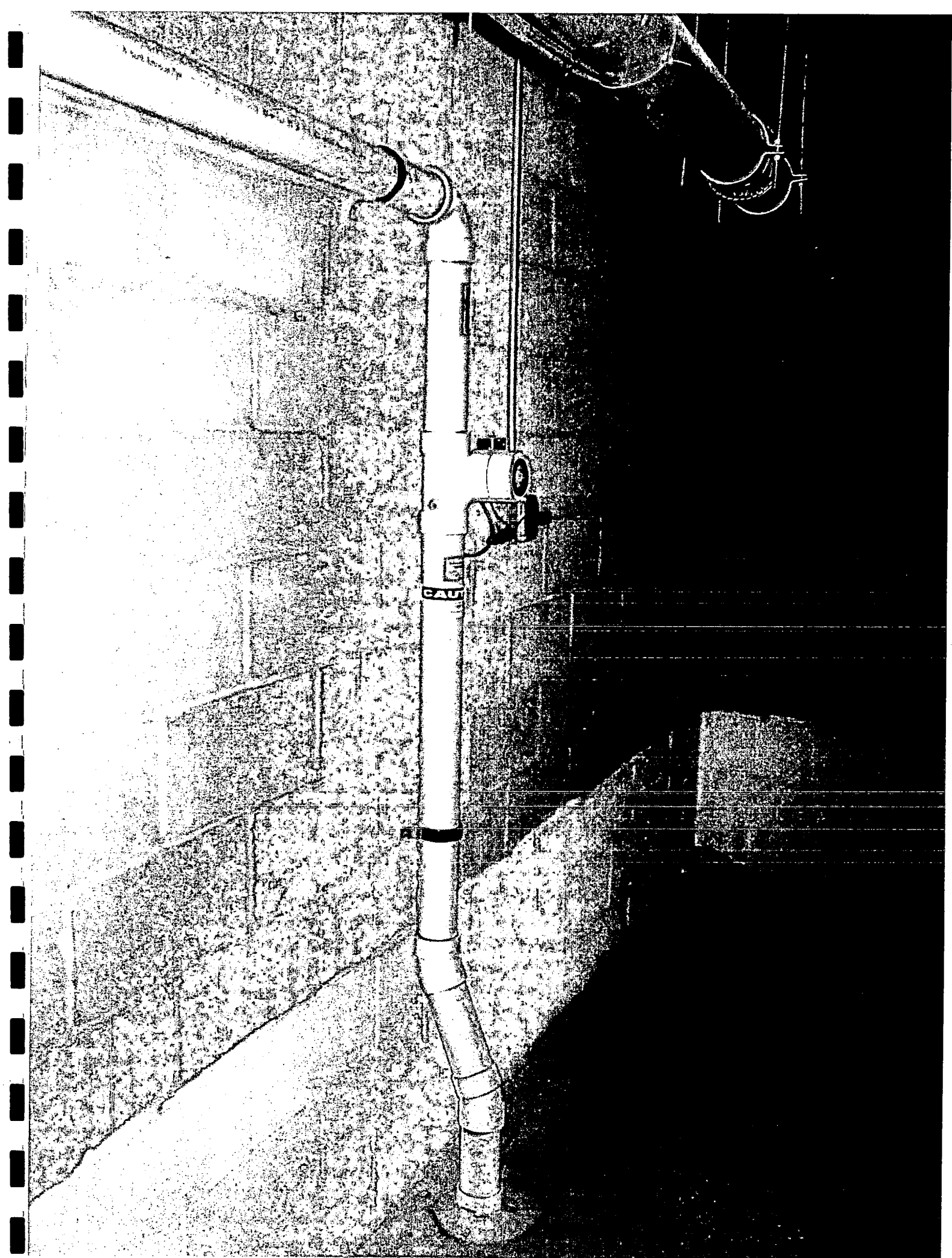
Warning of an active soil depressurization system.
Do not alter or disconnect.
Radco Inc., 1-800-447-2146

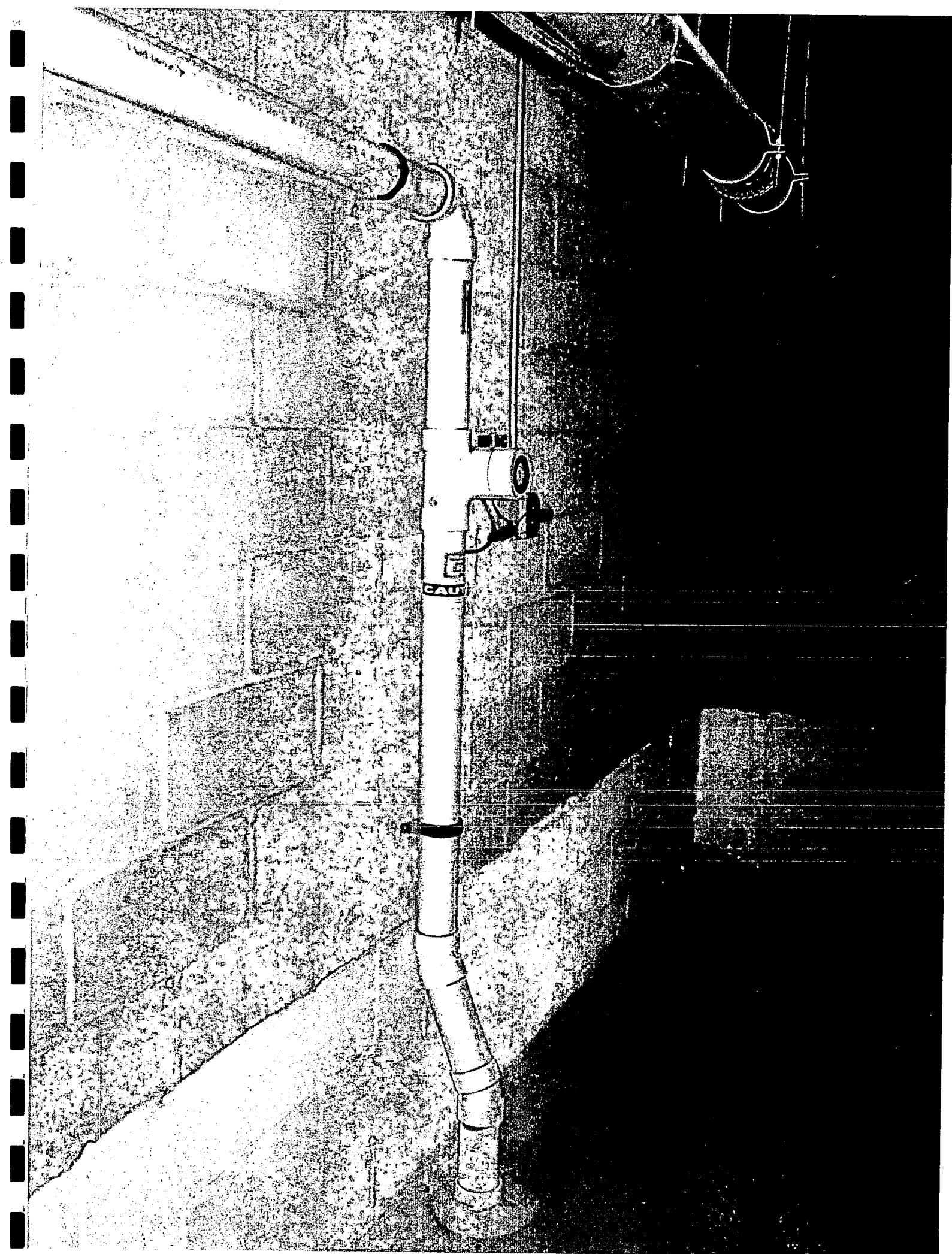






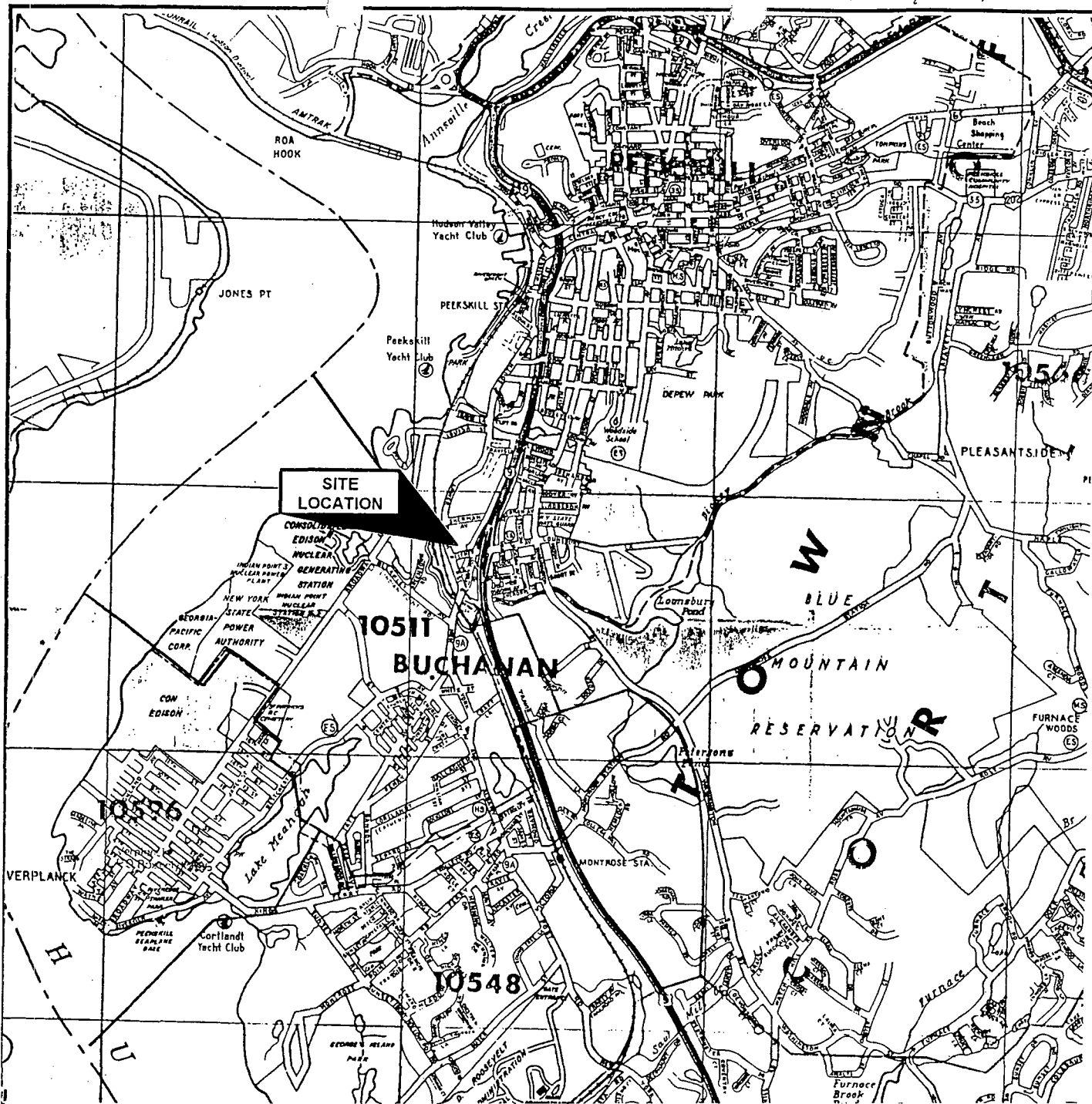
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APPENDIX 4

9304201 I



HOSPITAL ROUTE MAP



Peekskill Plaza
20 Welcher Avenue
Peekskill, Westchester County, New York

BELL PROJECT # EOG01-93042-01

Figure 3

1" = 3,000'

APPENDIX 5

Job #: 93042-01		Boring #: MW-1	
Project: Peekskill Plaza		Location: Peekskill New York	
Geologist: Roger Edens		License #: N/A	
Driller: Ed Pelkey			
Drilling Contractor: General Borings Inc.			
Drilling Equipment: Dietrich D-120			
Date Start: 4-21-98		Date Complete: 4-24-98	
Completion Depth: 27'			
Sampler: Split Spoon		Hammer Weight: 130	
Fall: 30"			
Well Casing: 4" Schedule 40 PVC		Length: 16'	
Slot Size: 0.020			
Screen: 4" Schedule 40 PVC		Length: 10'	
Water: 19'			
Filter Pack: # 2 gravel		Interval: 14'-26'	
Bentonite: 12'-14'			
Remarks:			

LOG OF BORING

SPLIT SPOON SAMPLES			DEPTH (feet)	SOIL DESCRIPTION Modified Burmeister	REMARKS
HNu	Rec.	Blows			
			0-0.5	Pavement, base stone.	Perched water at 11' bg. Potentially stained soils at top of water.
1	14"	10,13,16,16	0.5-2.5	Brown Reworked C-F Sand, some C-F Gravel, little Silt-Clay, Moist.	
			2.5-5	Same as Below.	
0.5	12"	7,4,3,4	5-7	Brown F-C Sand, trace Silt-Clay, Moist.	
			7-8	Same.	
0.5	16"	4,7,7,6	8-10	Brown C-F Sand, trace Silt-Clay, Moist.	
0.5	14"	7,5,4,3	10-12	Brown C-F Sand, trace F Gravel, trace Silt-Clay, Moist and Saturated.	
			12-15	Probable confining layer of F Sand, and Silt-Clay, somewhat plastic.	
0	15"	6,6,7,13	15-17	Brown M-F Sand, trace Silt, Moist.	
0	14"	19,22,16,16	17-19	Brown M-F Sand, trace Silt, Moist.	
0	13"	45,21,16,14 3" Spoon	19-21	4" Brown Silt-Clay, and F Sand, little F Gravel, Saturated. 9" Brown C-M Sand, some F-C Gravel, trace Silt-Clay, Saturated.	Groundwater at 19'
			21-25	Same	
0	12"	8,8,10,10	25-27	Brown C-F(-) Sand, little F-M Gravel, trace Silt-Clay, Saturated.	
				EOB = 27' BG	

BELL ENVIRONMENTAL

Job # 93042-01

Project: Peekskill Plaza

Geologist: Roger Edens

Drilling Contractor: General Borings, Inc.

Drilling Equipment: Dietrich D-120

Boring Diameter: 8"

Total Depth: 26'

WELL NUMBER: MW-1

Location: Peekskill, New York

Well Permit #: N/A

Start Date: 4-21-98

Complete Date: 4-24-98

Depth to Water: 19'

Sample Type: Split Spoon

Protective Casing: Flushmount

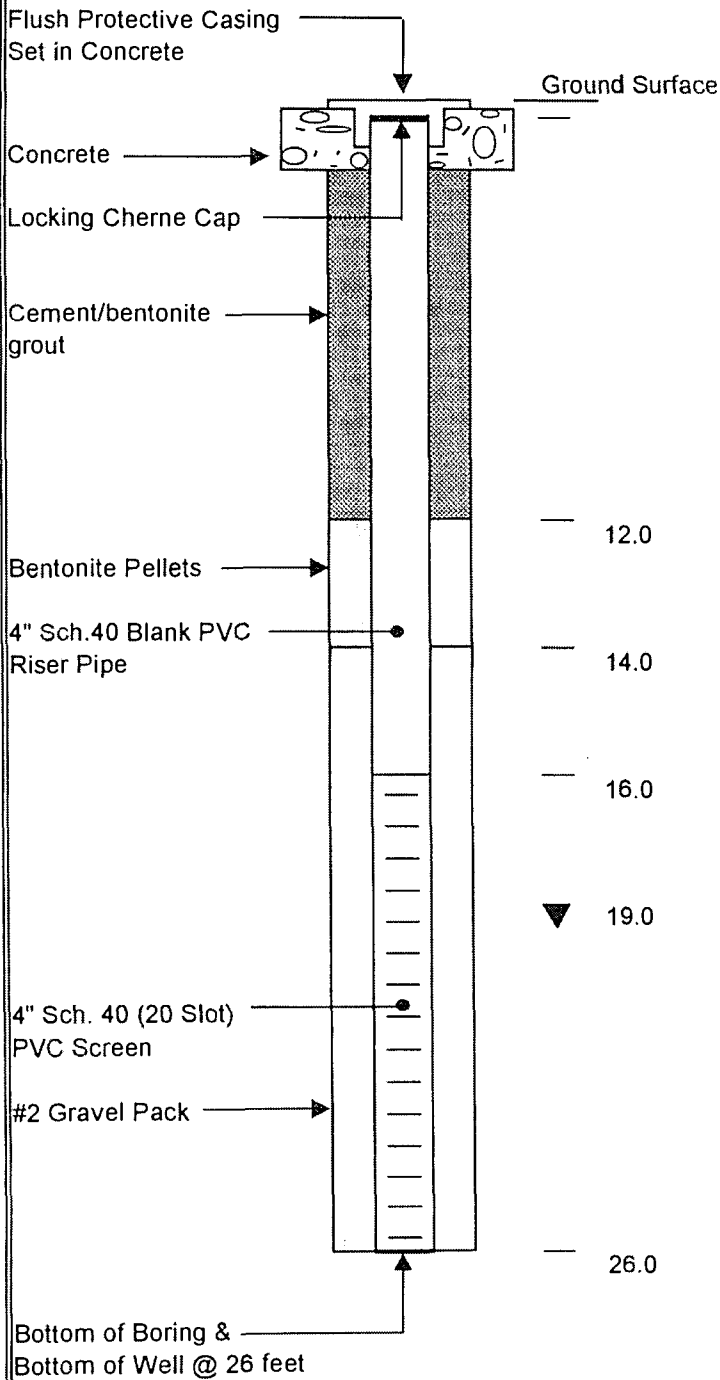


FIGURE NOT TO SCALE

CLIENT: <u>Bell Environmental Consultants, Inc.</u>		General Borings, Inc. P.O. BOX 7135 PROSPECT, CT 06712		SHEET <u>1</u> OF <u>1</u> HOLE NO. <u>MW-1</u>	
GBI JOB NO. <u>98-98</u>		PROJECT NAME <u>Peekskill Plaza</u>		LINE	
FOREMAN-DRILLER <u>E.P. M.L.</u>		LOCATION <u>20 Welcher Street</u>		STATION	
INSPECTOR <u>R.E.</u>		<u>Peekskill, NY</u>		OFFSET	
GROUND WATER OBSERVATIONS AT <u>11</u> FT. AFTER <u>0</u> HOURS		CASING TYPE <u>HA</u> SAMPLER <u>SS</u> CORE BAR. _____		Start Finish DATE <u>4/21</u> <u>4/22/98</u>	
AT _____ FT. AFTER _____ HOURS		SIZE I.D. <u>6 1/2"</u> <u>1-3/8"</u> _____ HAMMER WT. _____ <u>140</u> LBS. BIT _____ HAMMER FALL <u>30"</u>		SURFACE ELEV. _____ GROUND WATER ELEV. _____	

DEPTH	CASING BLOWS PER FOOT	SAMPLE					BLOWS PER 6" ON SAMPLER (FORCE ON TUBE)			CORING TIME PER FT. (MIN.)	MOIST DENSITY OR CONSIST.	STRATA CHANGE DEPTH ELEV.	FIELD IDENTIFICATION OF SOIL REMARKS INCL. COLOR, LOSS OF WASH WATER, SEAMS IN ROCK, ETC.
		NO.	TYPE	PEN	REC.	DEPTH @ BOT.	0-6	6-12	12-18				
5		1	SS	24"	14"	2.5'	10	13	16		Dry Medium		12" Blacktop 1" Road Base
10		2	SS	24"	12"	7.0'	7	4	3		Wet Loose		1) Brown fine-coarse SAND and GRAVEL. 2) Brown fine-coarse SAND, trace silt.
15		3	SS	24"	14"	12.0'	7	5	4		Wet Loose		3) Brown coarse-fine SAND, little gravel, trace little silt.
20		4	SS	24"	15"	17.0'	6	6	7		Dry Medium		4) Brown fine-medium SAND.
25		5	SS	24"	14"	19.0'	19	22	16		Dry Dense		5) (same as S-4)
30		6	SS	24"	13"	22.0'	45	21	16		Wet Dense		6) Brown coarse-fine SAND, little fine-medium gravel, trace silt.
35		7	SS	24"	12"	27.0'	8	8	10		Wet Medium		7) (same as S-6)
40													

TYPE OF SAMPLES:
D= DRY W= WASHED C= CORED A= AUGER SS= SPLIT SPOON
UB= UNDISTURBED BALL CHECK UP= UNDISTURBED PISTON VT= VANE SPOON
PROPORTIONS USED TRACE= 0-10% LITTLE= 10-20% SOME= 20-35% AND= 35-50%

EOB 27.0' END OF BORING 27.0' Soil

Installed 4" Well at 26.0'

Sand 26.0'-14.0'

Bentonite 14.0'-12.0'

Grout 12.0'-1.0'

10.0' Screen

15.5' Riser

8 Bags Sand

1 Bag Bentonite

1 Expansion Plug

1 Point

1 Abus Lock

2 Bags Concrete

1 New Jersey Curb Box

Job #: 93042-01		Boring #: MW-2			
Project: Peekskill Plaza		Location: Peekskill New York			
Geologist: Roger Edens		Driller: Ed Pelkey			
Drilling Contractor: General Borings Inc.		License #: N/A			
Drilling Equipment: Dietrich D-120					
Date Start: 4-22-98		Date Complete: 4-24-98			
Sampler: Split Spoon		Completion Depth: 27'			
Well Casing: 4" Schedule 40 PVC		Hammer Weight: 130			
Screen: 4" Schedule 40 PVC		Fall: 30"			
Filter Pack: # 2 gravel		Length: 16'			
Interval: 14'-26'		Slot Size: 0.020			
Remarks:		Water: 19'			
Bentonite: 12'-14'					
LOG OF BORING					
SPLIT SPOON SAMPLES			DEPTH (feet)	SOIL DESCRIPTION Modified Burmeister	REMARKS
HNu	Rec.	Blows			
			0-0.5	Pavement, base stone.	Groundwater at 19'
0.5	12"	17,10,7,8	0.5-2.5	Brown Reworked F-C Sand, some C-F Gravel, some Silt-Clay, Moist.	
			2.5-5	Same as Below.	
0.5	12"	4,7,7,5	5-7	Brown F-M Sand, little Silt-Clay, Moist. 2" F-C Gravel bed in center of spoon.	
			7-10	Same.	
0.6	14"	5,5,6,6	10-12	Brown M-F Sand, little Silt-Clay, little Gravel, Moist.	
			12-15	Same	
0.7	14"	10,10,7,7	15-17	Brown well graded C-F Sand, some C-F Gravel, little Silt-Clay, Moist.	
1.4	12"	11,6,9,7	17-19	Brown well graded C-F Sand, some (-) M-F Gravel, little Silt-Clay, Moist.	
1.2	15"	8,7,9,10 3" Spoon	19-21	Brown well graded C-F Sand, some F-C Gravel, little Silt-Clay, Saturated.	
			21-25	Same as Above	
	14"	10,10,10,14	25-27	Greenish Grey C-F Sand, little M-C Gravel, little Silt-Clay.	
				EOB = 27' BG	

BELL ENVIRONMENTAL

Job # 93042-01

Project: Peekskill Plaza

Geologist: Roger Edens

Drilling Contractor: General Borings, Inc.

Drilling Equipment: Dietrich D-120

Boring Diameter: 8"

Total Depth: 26'

WELL NUMBER: MW-2

Location: Peekskill, New York

Well Permit #: N/A

Start Date: 4-22-98

Complete Date: 4-24-98

Depth to Water: 19'

Sample Type: Split Spoon

Protective Casing: Flushmount

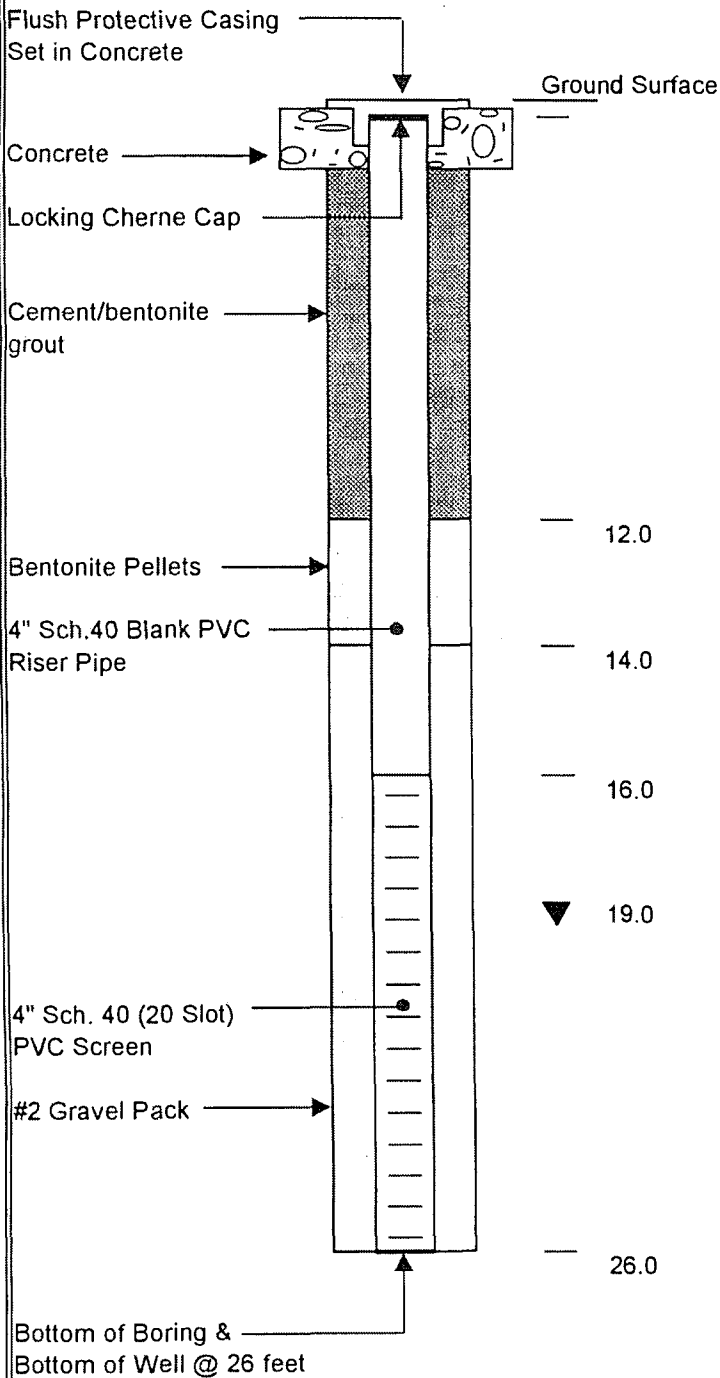


FIGURE NOT TO SCALE

CLIENT: <u>Bell Environmental Consultants, Inc.</u>		General Borings, Inc. P.O. BOX 7135 PROSPECT, CT 06712		SHEET <u>1</u> OF <u>1</u> HOLE NO. <u>MW-2</u>	
GBI JOB NO. <u>98-98</u>		PROJECT NAME <u>Peekskill Plaza</u>		LINE	
FOREMAN-DRILLER <u>E.P. M.L.</u>		LOCATION <u>20 Welcher Street</u>		STATION	
INSPECTOR <u>R.E.</u>		<u>Peekskill, NY</u>		OFFSET	
GROUND WATER OBSERVATIONS AT <u>20</u> FT. AFTER <u>0</u> HOURS		CASING TYPE <u>HA</u> SAMPLER <u>SS</u> CORE BAR. _____		DATE <u>4/22</u> <u>4/22/98</u>	
AT _____ FT. AFTER _____ HOURS		SIZE I.D. <u>6 1/2"</u> <u>1-3/8"</u>		SURFACE ELEV. _____	
		HAMMER WT. _____ <u>140</u> LBS. BIT		GROUND WATER ELEV. _____	
		HAMMER FALL _____ <u>30"</u>			

DEPTH	CASING BLOWS PER FOOT	SAMPLE					BLOWS PER 6" ON SAMPLER (FORCE ON TUBE)			CORING TIME PER FT. (MIN.)	MOIST DENSITY OR CONSIST.	STRATA CHANGE DEPTH ELEV.	FIELD IDENTIFICATION OF SOIL REMARKS INCL. COLOR, LOSS OF WASH WATER, SEAMS IN ROCK, ETC.
		NO.	TYPE	PEN	REC.	DEPTH @ 30'	0-6	6-12	12-18				
5		1	SS	24"	12"	2.5'	17	10	7		Dry		2" Blacktop
									8		Medium		1" Road Base
													1) Brown medium-coarse SAND, some gravel.
10		2	SS	24"	12"	7.0'	4	7	7		Dry		2) Brown coarse-medium SAND, some gravel.
									5		Medium		
15		3	SS	24"	14"	12.0'	5	5	6		Dry		3) (same as S-2)
									6		Medium		
20		4	SS	24"	14"	17.0'	10	10	7		Dry		4) Brown coarse-medium SAND and GRAVEL.
									7		Medium		
		5	SS	24"	12"	19.0'	11	6	9		Dry		5) (same as S-4)
25									7		Medium		
		6	SS	24"	15"	22.0'	8	7	9		Wet		6) Brown coarse-medium SAND and coarse-medium GRAVEL.
									10		Medium		
30													
		7	SS	24"	14"	27.0'	10	10	10		Wet		7) Gray coarse-fine SAND, little coarse-medium gravel, little silt.
									14		Medium	27.0' EOB	
35													Augered to 26.0'
													END OF BORING 27.0' Soil
													Installed 4" Monitor Well at 26'
40													Sand 26.0'-14.0'
													Bentonite 14.0'-12.0'
													Grout 12.0'-1.0'
													NJ Curb Box 1.0'-0'
													10.0' Screen
													15.5' Riser
													8 Bags Sand
													1 Bentonite
													1.5 Bags Concrete
													1 Expansion Plug
													1 Point, Lock & NJ Curb Box

TYPE OF SAMPLES:
D= DRY W= WASHED C= CORED A= AUGER SS= SPLIT SPOON
UB= UNDISTURBED BALL CHECK UP= UNDISTURBED PISTON VT= VANE SPOON
PROPORTIONS USED TRACE= 0-10% LITTLE= 10-20% SOME= 20-35% AND= 35-50%

Job #: 93042-01			Boring #: MW-3			
Project: Peekskill Plaza			Location: Peekskill New York			
Geologist: Roger Edens			Driller: Ed Pelkey		License #: N/A	
Drilling Contractor: General Borings Inc.						
Drilling Equipment: Dietrich D-120						
Date Start: 4-23-98		Date Complete: 4-24-98		Completion Depth: 28'		
Sampler: Split Spoon		Hammer Weight: 130		Fall: 30"		
Well Casing: 4" Schedule 40 PVC		Length: 18'		Slot Size: 0.020		
Screen: 4" Schedule 40 PVC		Length: 10'		Water: 20.9'		
Filter Pack: # 2 gravel		Interval: 16'-28'		Bentonite: 14'-16'		
Remarks:						
LOG OF BORING						
SPLIT SPOON SAMPLES			DEPTH (feet)	SOIL DESCRIPTION Modified Burmeister	REMARKS	
HNu	Rec.	Blows				
			0-0.5	Pavement, base stone.	Fill Material	
0.2	6"	12,28,36,16	0.5-2.5	Brown reworked native and fill of F-C Sand, some F-C Gravel, little Silt-Clay, trace Cobbles, Moist.		
			2.5-5	Same.		
0.2	4"	7,5,4,5	5-7	Brown and dark brown reworked F-C Sand, some Gravel, some Silt-Clay.		
			7-10	Same as Above		
0.1	12"	4,5,9,11	10-12	Light greyish brown F-M Sand, little Silt.		
			12-15	Same		
0.2	17"	9,9,10,12	15-17	Brown well graded F-C Sand, some (-) Silt-Clay, little F-C Gravel, Moist.		
0.3	20"	8,17,19,18 3" Spoon	17-19	6" Brown Silt-Clay, and F-C Sand, trace F-C Gravel, Moist 14" Brown C-F Sand, little (+) F-C Gravel, trace Silt-Clay, Moist.		
0.4	19"	25,22,21,18 3" Spoon	19-21	Brown C-F Sand, little (+) F-C Gravel, trace Silt-Clay, Moist.		Groundwater at 20.9'
			21-25	Same		
	14"	8,13,10,10	25-27	Brown C-F Sand, little F-C Gravel, trace Silt-Clay, Moist.		
			27-28	Same		

BELL ENVIRONMENTAL

Job # 93042-01

Project: Peekskill Plaza

Geologist: Roger Edens

Drilling Contractor: General Borings, Inc.

Drilling Equipment: Dietrich D-120

Boring Diameter: 8"

Total Depth: 28'

WELL NUMBER: MW-3

Location: Peekskill, New York

Well Permit #: N/A

Start Date: 4-23-98

Complete Date: 4-24-98

Depth to Water: 20.9'

Sample Type: Split Spoon

Protective Casing: Flushmount

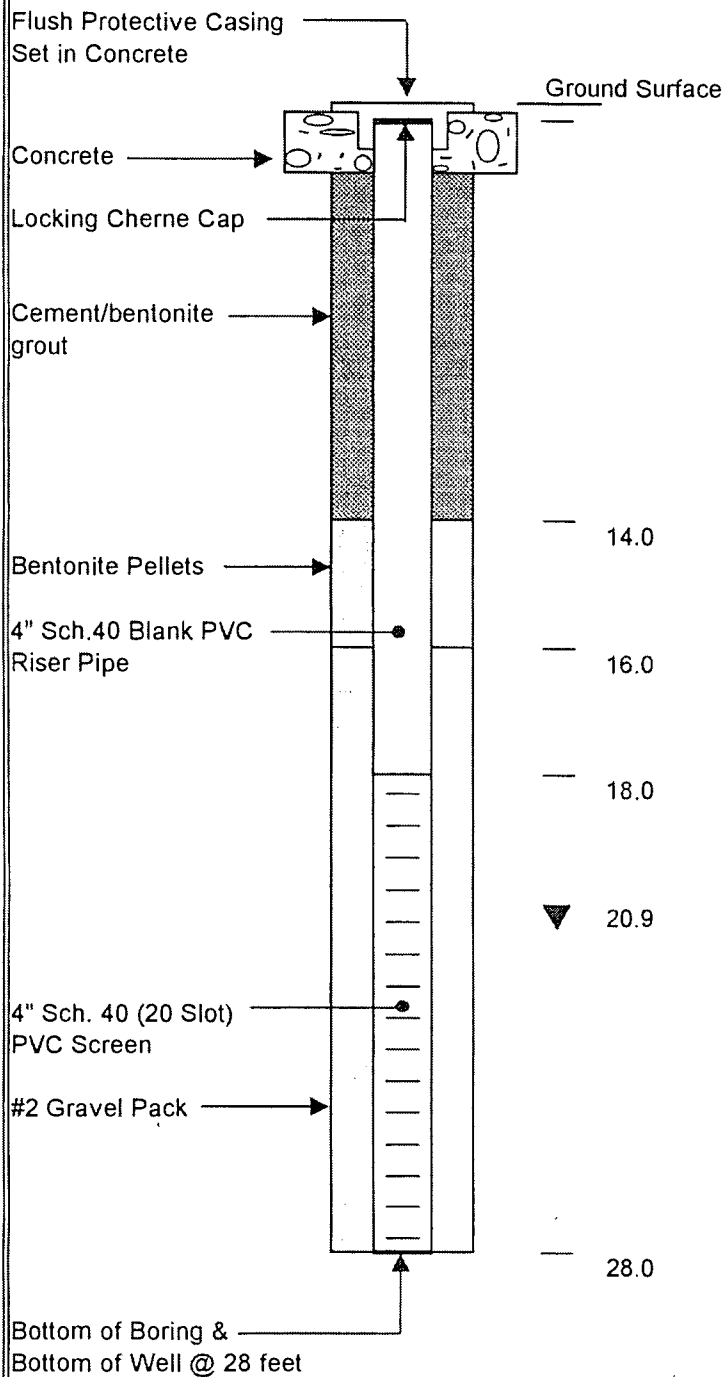


FIGURE NOT TO SCALE

CLIENT: <u>Bell Environmental Consultants, Inc.</u>		General Borings, Inc. P.O. BOX 7135 PROSPECT, CT 06712		SHEET <u>1</u> OF <u>1</u> HOLE NO. <u>MW-3</u>	
GBI JOB NO. <u>98-98</u>		PROJECT NAME <u>Peekskill Plaza</u>		LINE	
FOREMAN-DRILLER <u>E.P. M.L.</u>		LOCATION <u>20 Welcher Street</u>		STATION	
INSPECTOR <u>R.E.</u>		<u>Peekskill, NY</u>		OFFSET	
GROUND WATER OBSERVATIONS AT <u>21</u> FT. AFTER <u>0</u> HOURS		TYPE <u>HA</u> CASING <u>SS</u> SAMPLER <u>SS</u> CORE BAR. <u>SS</u>		DATE <u>Start 4/23</u> <u>Finish 4/24/98</u>	
AT _____ FT. AFTER _____ HOURS		SIZE I.D. <u>6 1/2"</u> <u>1-3/8"</u>		SURFACE ELEV. _____	
		HAMMER WT. _____ <u>140</u> LBS. BIT		GROUND WATER ELEV. _____	
		HAMMER FALL _____ <u>30"</u>			

DEPTH	CASING BLOWS PER FOOT	SAMPLE				BLOWS PER 6" ON SAMPLER (FORCE ON TUBE)			CORING TIME PER FT. (MIN.)	MOIST DENSITY OR CONSIST.	STRATA CHANGE DEPTH ELEV.	FIELD IDENTIFICATION OF SOIL REMARKS INCL. COLOR. LOSS OF WASH WATER. SEAMS IN ROCK, ETC.
		NO.	TYPE	PEN	REC.	DEPTH @ BOT.	0-6	6-12				
5		1	SS	24"	6"	2.5'	12	26	38			2" Blacktop 1" Road Base 1) Brown fine-medium SAND and GRAVEL, fill. 2) (same as S-1)
10		2	SS	24"	4"	7.0'	7	5	4			Dry Loose 3) Brown fine SAND, little gravel, some silt. 4) (same as S-3)
15		3	SS	24"	12"	12.0'	4	5	9			Dry Medium 5) Brown coarse-fine SAND, little gravel, trace silt. 6) (same as S-5)
20		4	SS	24"	17"	17.0'	9	9	12			Dry Medium Wet Dense 7) (same as S-5)
25		5	SS	24"	20"	19.0'	8	17	19			28.0' Augered to 28.0' EOB END OF BORING 28.0' Soil Installed 4" Monitor Well @ 28' Sand from 28.0'-16.0' Bentonite 16.0'-14.0' Grout 14.0'-1.0' NJ Curb Box 1.0'-0'
30		6	SS	24"	18"	21.0'	25	22	21			10.0' Screen 17.5' Riser 7 Bags Sand 1 Bag Bentonite 2 Bags Concrete 1 Expansion Plug 1 Point 1 Abus Lock, 1 NJ Curb Box
35												
40		7	SS	24"	14"	27.0'	8	13	10			

TYPE OF SAMPLES: D= DRY W= WASHED C= CORED A= AUGER SS= SPLIT SPOON UB= UNDISTURBED BALL CHECK UP= UNDISTURBED PISTON VT= VANE SPOON PROPORTIONS USED TRACE= 0-10% LITTLE= 10-20% SOME= 20-35% AND= 35-50%	
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CLIENT: <u>Bell Environmental Consultants, Inc.</u>		General Borings, Inc. P.O. BOX 7135 PROSPECT, CT 06712		SHEET <u>1</u> OF <u>1</u> HOLE NO. <u>MW-3A</u>	
GBI JOB NO. <u>98-98</u>		PROJECT NAME <u>Peekskill Plaza</u>		LINE	
FOREMAN-DRILLER <u>E.P. M.L.</u>		LOCATION <u>20 Welcher Street</u>		STATION	
INSPECTOR <u>R.E.</u>		<u>Peekskill, NY</u>		OFFSET	
GROUND WATER OBSERVATIONS AT <u>None</u> FT. AFTER <u>0</u> HOURS AT _____ FT. AFTER _____ HOURS		CASING <u>HA</u> SAMPLER <u>SS</u> CORE BAR. _____ TYPE _____ SIZE I.D. <u>6 1/2"</u> <u>1-3/8"</u> _____ HAMMER WT. _____ <u>140</u> LBS. BIT _____ HAMMER FALL _____ <u>30"</u>		Start _____ Finish _____ DATE <u>4/24</u> <u>4/24/98</u> SURFACE ELEV. _____ GROUND WATER ELEV. _____	

DEPTH	CASING BLOWS PER FOOT	SAMPLE				BLOWS PER 6" ON SAMPLER (FORCE ON TUBE)			CORING TIME PER FT. (MIN.)	MOIST DENSITY OR CONSIST.	STRATA CHANGE DEPTH ELEV.	FIELD IDENTIFICATION OF SOIL REMARKS INCL. COLOR, LOSS OF WASH WATER, SEAMS IN ROCK, ETC.			
		NO.	TYPE	PEN	REC.	DEPTH @ BOT.	0-6	6-12					12-18		
5												Augered to 18.0' No samples required			
10															
15															
20		1	SS	24"	18"	20.0'	24	40	26	Dry Very Dense	20.0' EOB	1) Brown fine-coarse SAND, little fine-coarse gravel, little silt. END OF BORING 20.0' Soil			
									22						
25															
30															
35															
40															

TYPE OF SAMPLES:
 D= DRY W= WASHED C= CORED A= AUGER SS= SPLIT SPOON
 UB= UNDISTURBED BALL CHECK UP= UNDISTURBED PISTON VT= VANE SPOON
 PROPORTIONS USED TRACE= 0-10% LITTLE= 10-20% SOME= 20-35% AND= 35-50%

Job #: 93042-01		Boring #: MW-4	
Project: Peekskill Plaza		Location: Peekskill New York	
Geologist: Roger Edens		Driller: Ed Pelkey	
		License #: N/A	
Drilling Contractor: General Borings Inc.			
Drilling Equipment: Dietrich D-120			
Date Start: 4-23-98		Date Complete: 4-24-98	Completion Depth: 28'
Sampler: Split Spoon		Hammer Weight: 130	Fall: 30"
Well Casing: 4" Schedule 40 PVC		Length: 18'	Slot Size: 0.020
Screen: 4" Schedule 40 PVC		Length: 10'	Water: 21'
Filter Pack: # 2 gravel		Interval: 16'-28'	Bentonite: 14'-16'
Remarks:			

LOG OF BORING

SPLIT SPOON SAMPLES			DEPTH (feet)	SOIL DESCRIPTION Modified Burmeister	REMARKS
HNu	Rec.	Blows			
			0-0.5	Pavement, base stone.	Groundwater at 21'
0.4	16"	16,16,17,15	0.5-2.5	Brown Reworked F-C Sand, some C-F Gravel, some Silt-Clay, Moist.	
			2.5-5	Same as Below.	
0.1	5"	12,7,54/4	5-6.4	Brown F-C Sand, some F-C Gravel, little Silt-Clay, little Cobbles, Moist.	
			6.4-10	Same.	
0.4	10"	6,5,4,5	10-12	Brown C-F Sand, little, F-C Gravel, little Silt-Clay, trace Cobbles, Moist.	
			12-15	Same	
0.4	12"	11,12,9,6	15-17	Brown F-C Sand, some (-) Cobbles, little M-F Gravel, little Silt-Clay, Moist.	
0.3	15"	9,10,10,18 3" Spoon	17-19	Brown C-F Sand, little Cobbles, little F-M Gravel, little Silt-Clay, Moist.	
0.4	4"	23,30,28,20 3" Spoon	19-21	Brown C-F Sand, little Cobbles, little F-M Gravel, little Silt-Clay, Moist.	
	19"	10,10,9,2	21-23	Brown C-F Sand, some M-F Gravel, little (-) Silt-Clay., Saturated.	
			32-25	Same	
	9"	10,11,12,9	25-27	Brown C-F Sand, little F Gravel, little Silt-Clay, trace Cobbles	
			27-28	Same	

BELL ENVIRONMENTAL

Job # 93042-01

Project: Peekskill Plaza

Geologist: Roger Edens

Drilling Contractor: General Borings, Inc.

Drilling Equipment: Dietrich D-120

Boring Diameter: 8"

Total Depth: 28'

WELL NUMBER: MW-4

Location: Peekskill, New York

Well Permit #: N/A

Start Date: 4-23-98

Complete Date: 4-24-98

Depth to Water: 21'

Sample Type: Split Spoon

Protective Casing: Flushmount

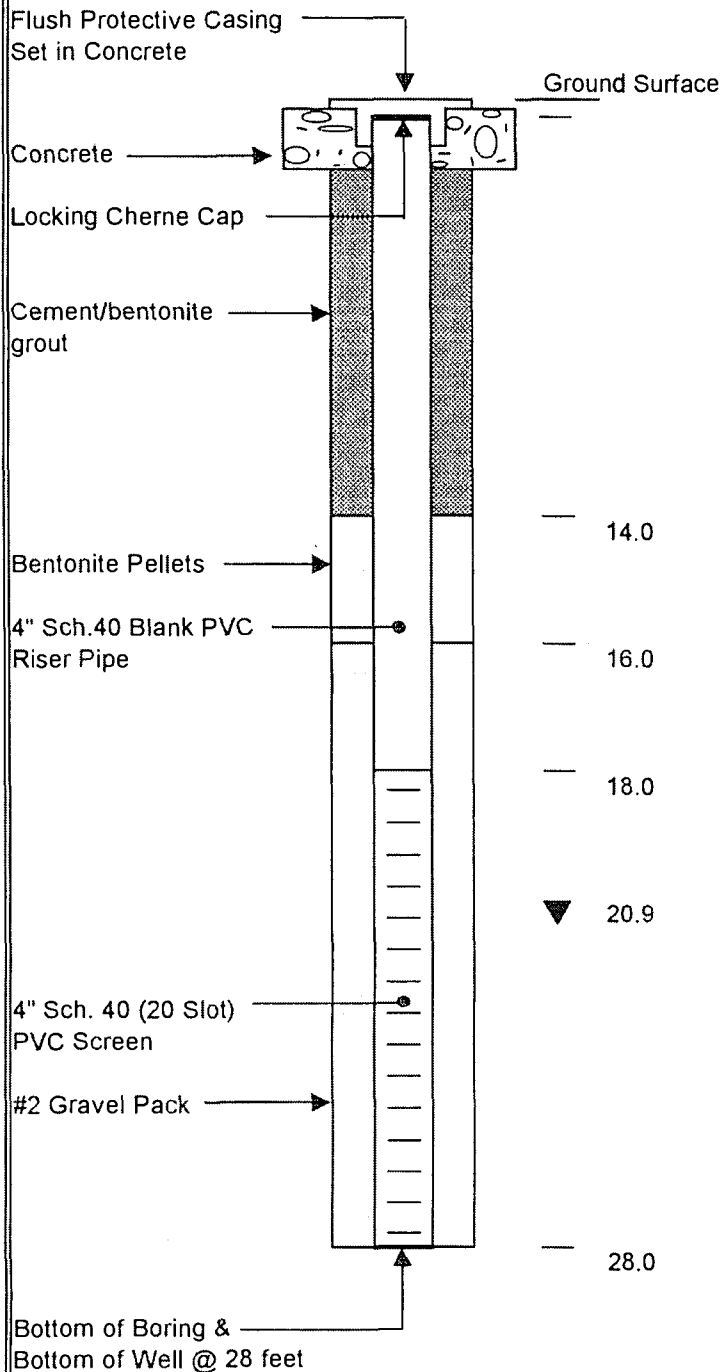


FIGURE NOT TO SCALE

CLIENT: <u>Bell Environmental Consultants, Inc.</u>		General Borings, Inc. P.O. BOX 7135 PROSPECT. CT 06712		SHEET <u>1</u> OF <u>1</u> HOLE NO. <u>MW-4</u>	
GBI JOB NO. <u>98-98</u>		PROJECT NAME <u>Peekskill Plaza</u>		LINE	
FOREMAN-DRILLER <u>E.P. M.L.</u>		LOCATION <u>20 Welcher Street</u>		STATION	
INSPECTOR <u>R.E.</u>		<u>Peekskill, NY</u>		OFFSET	
GROUND WATER OBSERVATIONS AT <u>21</u> FT. AFTER <u>0</u> HOURS AT _____ FT. AFTER _____ HOURS		CASING TYPE <u>HA</u> SIZE I.D. <u>6 1/2"</u> HAMMER WT. _____ HAMMER FALL _____		SAMPLER CORE BAR. SS <u>1-3/8"-3"</u> <u>140</u> LBS. BIT <u>30"</u>	
				DATE <u>4/23</u> <u>4/23/98</u> SURFACE ELEV. _____ GROUND WATER ELEV. _____	

DEPTH	CASING BLOWS PER FOOT	SAMPLE					BLOWS PER 6" ON SAMPLER (FORCE ON TUBE)			CORING TIME PER FT. (MIN.)	MOIST DENSITY OR CONSIST.	STRATA CHANGE DEPTH ELEV.	FIELD IDENTIFICATION OF SOIL REMARKS INCL. COLOR, LOSS OF WASH WATER, SEAMS IN ROCK, ETC.
		NO.	TYPE	PEN	REC.	DEPTH @ ECT.	0-6	6-12	12-18				
5		1	SS	24"	16"	2.5'	16	16	17		Dry		3" Blacktop 1" Road Base 1) Brown coarse-medium SAND and GRAVEL, trace silt. 2) (same as S-1) some cobbles.
									15		Dense		
10		2	SS	16"	5"	6.3'	12	7	50/4"		Dry		8.0'
											Very		
											Dense		
15		3	SS	24"	10"	12.0'	6	5	4		Dry		3) Brown coarse-medium SAND, some gravel.
									5		Loose		
20		4	SS	24"	10"	17.0'	11	12	9		Dry		4) (same as S-3)
									6		Medium		
	3"	5	SS	24"	14"	19.0'	9	10	10		Dry		
25									18		Medium		5) (same as S-3) little gravel.
	3"	6	SS	24"	4"	21.0'	23	30	28		Wet		
									20		Dense		
30		3"	7	SS	24"	19"	10	10	9		Wet		6) Brown medium-coarse SAND, some coarse-medium gravel.
									12		Medium		
35													7) Brown coarse-medium SAND and GRAVEL.
40		8	SS	24"	9"	27.0'	10	11	12		Wet		8) Brown coarse-fine SAND, little gravel, little silt.
									9		Medium		
													28.0'
													EOB
													END OF BORING 28.0' Soil
													Installed 4" Monitor Well at 18'
													Sand 28.0'-16.0'
													Bentonite 16.0'-14.0'
													Grout 14.0'-1.0'
													NJ Curb Box 1.0'-0.0'
													10.0' Screen
													17.5' Riser
													1 Expansion Plug
													1 Point
													9 Bags Sand
													1 Bag Bentonite
													2 Bags Concrete
													1 NJ Curb Box
													1 Abus Lock

TYPE OF SAMPLES:
D= DRY W= WASHED C= CORED A= AUGER SS= SPLIT SPOON
UB= UNDISTURBED BALL CHECK UP= UNDISTURBED PISTON VT= VANE SPOON
PROPORTIONS USED TRACE= 0-10% LITTLE= 10-20% SOME= 20-35% AND= 35-50%

Job #: 93042-01			Boring #: MW-5		
Project: Peekskill Plaza			Location: Peekskill New York		
Geologist: Roger Edens			Driller: Ed Pelkey		License #: N/A
Drilling Contractor: General Borings Inc.					
Drilling Equipment: Dietrich D-120					
Date Start: 4-21-98		Date Complete: 4-24-98		Completion Depth: 17'	
Sampler: Split Spoon		Hammer Weight: 130		Fall: 30"	
Well Casing: 4" Schedule 40 PVC		Length: 7'		Slot Size: 0.020	
Screen: 4" Schedule 40 PVC		Length: 10'		Water: 10'	
Filter Pack: # 2 gravel		Interval: 5'-17'		Bentonite: 3'-5'	
Remarks:					
LOG OF BORING					
SPLIT SPOON SAMPLES			DEPTH (feet)	SOIL DESCRIPTION Modified Burmeister	REMARKS
HNu	Rec.	Blows			
			0-1	Pavement, Concrete	Groundwater at 10'
			1-2	Same as below	
0	12"	30,16,14,12	2-4	Brown M-C Sand, little Gravel, Moist.	
1	18"	6,4,3,4	5-7	Brown F-C Sand, little Silt-Clay, Moist.	
1	16"	7,10,9,7	7-9	8" Brown F-C Sand, trace (+) Silt-Clay, trace F-C Gravel, Moist. 8" Brown C-F Sand, trace Silt, Moist.	
			9-10	Same	
	18"	2,2,5,5	10-12	8" Brown C-F Sand, trace Silt-Clay.	
			12-15	Same	
	24"	4,6,5,6	15-17	11" Brown thinly bedded F-M Sand, some Silt. 10" Brown C-F Sand, trace Gravel. 3" Brown F Sand, some Silt-Clay.	
				EOB 17' BG	

BELL ENVIRONMENTAL

Job # 93042-01

Project: Peekskill Plaza

Geologist: Roger Edens

Drilling Contractor: General Borings, Inc.

Drilling Equipment: Dietrich D-120

Boring Diameter: 8"

Total Depth: 17'

WELL NUMBER: MW-5

Location: Peekskill, New York

Well Permit #: N/A

Start Date: 4-21-98

Complete Date: 4-24-98

Depth to Water: 10'

Sample Type: Split Spoon

Protective Casing: Flushmount

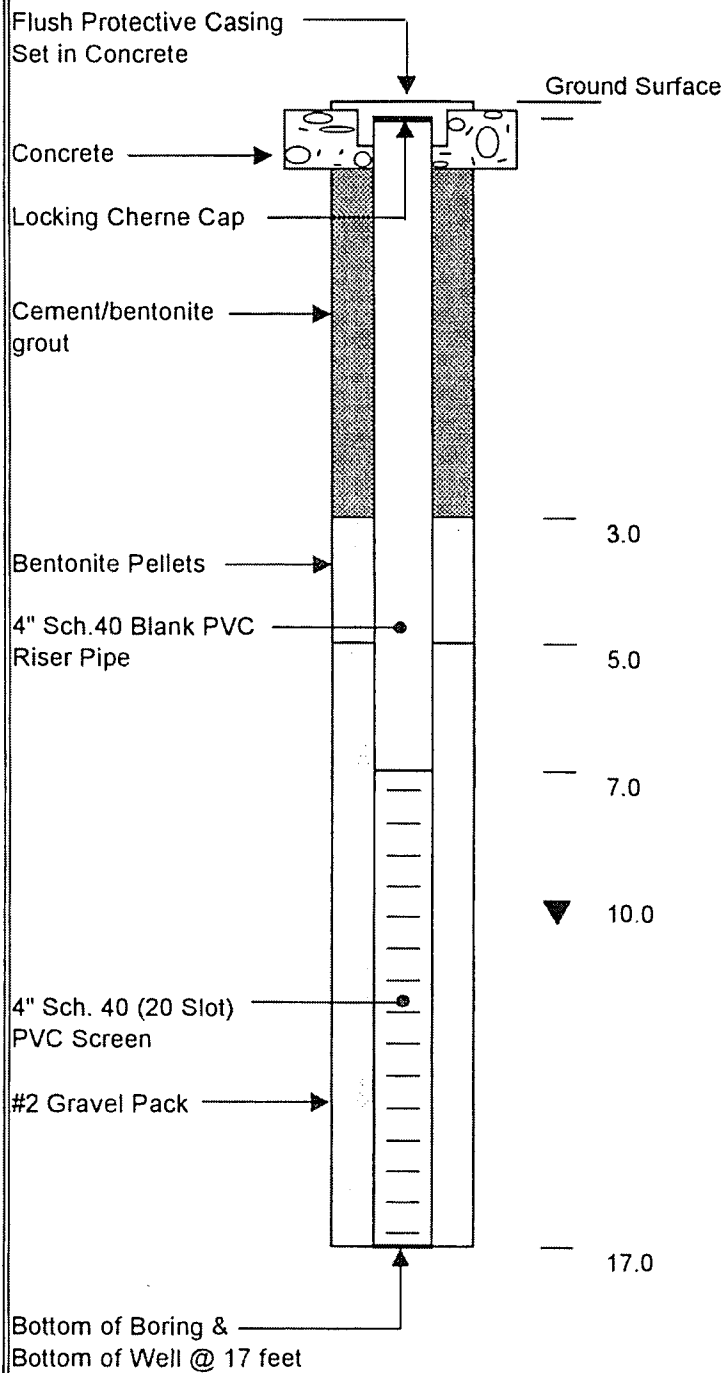


FIGURE NOT TO SCALE

CLIENT: <u>Bell Environmental Consultants, Inc.</u>		General Borings, Inc. P.O. BOX 7135 PROSPECT, CT 06712		SHEET <u>1</u> OF <u>1</u> HOLE NO. <u>MW-5</u>								
GBI JOB NO. <u>98-98</u>		PROJECT NAME <u>Peekskill Plaza</u>		LINE								
FOREMAN-DRILLER <u>E.P. M.L.</u>		LOCATION <u>20 Welcher Street</u>		STATION								
INSPECTOR <u>R.E.</u>		<u>Peekskill, NY</u>		OFFSET								
GROUND WATER OBSERVATIONS AT <u>9.5</u> FT. AFTER <u>0</u> HOURS		CASING TYPE <u>HA</u>	SAMPLER SS <u>SS</u>	CORE BAR.								
AT _____ FT. AFTER _____ HOURS		SIZE I.D. <u>6 1/4"</u>	<u>1-3/8"</u>									
		HAMMER WT. _____	<u>140</u> LBS.	BIT								
		HAMMER FALL _____	<u>30"</u>									
DEPTH	CASING BLOWS PER FOOT	SAMPLE				BLOWS PER 6" ON SAMPLER (FORCE ON TUBE)	CORING TIME PER FT. (MIN.)	MOIST DENSITY OR CONSIST.	STRATA CHANGE DEPTH ELEV.	FIELD IDENTIFICATION OF SOIL REMARKS INCL. COLOR, LOSS OF WASH WATER, SEAMS IN ROCK, ETC.		
		NO.	TYPE	PEN	REC.						DEPTH @ BOT.	
5		1	SS	2"	2"	.1'	50	2"		Dry	.2'	2" Blacktop
		2	SS	24"	12"	4.0'	30	16	14	Dense		1" Road Base
									12	Dry	8.0'	1) Dark brown fine-medium SAND, trace gravel.
		3	SS	24"	18"	7.0'	6	4	3	Dense		CONCRETE
		4	SS	24"	18"	9.0'	7	10	9	Dry		2) Brown fine-medium SAND, trace gravel.
									7	Medium		3) Brown fine-coarse SAND, trace little silt.
10		5	SS	24"	18"	12.0'	2	2	5	Wet	11.0'	4) Brown coarse SAND, trace silt.
									5	Loose		5) Brown fine SAND and SILT.
15		6	SS	24"	24"	17.0'	4	6	5	Wet	17.0'	6) (same as S-5) layered with coarse sand.
									6	Medium		Augered to 17.0'
20												END OF BORING 17.0' Soil
												Installed 4" Monitor Well at 17"
												10.0' Screen
												7.0' Riser
												Sand 17.0'-5.0'
												Bentonite 5.0'-3.0'
25												Grout 3.0'-1.0'
												Concrete 1.0'-0'
												1 Expansion Plug
												1 Point
												1 NJ Curb Box
												9 Bags Sand
30												1 Bag Bentonite
												2 Bags Concrete
												offset hole sampled from
												7.0'-9.0'
35												
40												

TYPE OF SAMPLES:
 D= DRY W= WASHED C= CORED A= AUGER SS= SPLIT SPOON
 UB= UNDISTURBED BALL CHECK UP= UNDISTURBED PISTON VT= VANE SPOON
 PROPORTIONS USED TRACE= 0-10% LITTLE= 10-20% SOME= 20-35% AND= 35-50%

Total 8 drums

APPENDIX 6

GROUND WATER FIELD MONITORING DATA LOG

Project Name: Kurtsam Realty Date: April 7, 2005
Location: Peekskill, New York Well Designation: MW-1
Weather: Sunny, 50's Sampler(s): Marianne Brody/Douglas Keane
Well Security/Integrity: OK
Organic Vapor Reading: 0.0 ppm
Monitoring Instrument: Photo Ionization Detector (PID)
Sounding Method/Device: Heron Interface Probe
Well Diameter/Material: 4-inch/PVC

a. Well Depth (ft): 25.43 Purge Method: Submersible Pump, Low Flow
b. Depth to LNAPL (ft): NPD Purge Rate (gpm): 0.19
c. Depth to Water (ft): 18.84 Purge Start Time: 1:46 P.M.
d. Water Column (a-c): 6.59 Purge Finish Time: 2:13 P.M.
e. Well Volume (dxConv*): 4.30 Purge Volume (gal): 5.0

* Conversion Factors (gallons/linear foot): 0.1632 (2-inch); 0.6528 (4-inch); 1.4688 (6-inch); 2.6112 (8-inch)

Recovery Comments (i.e., pump dry): Good recovery

Odors/Sheens/Color: No odor/No sheen/Water is silty.

	Pre-Purge	Post Purge	Post-Sampling
Depth to Water (ft.):	<u>18.84</u>	<u>19.78</u>	<u>20.23</u>
pH:	<u>6.82</u>	<u>6.45</u>	<u>6.37</u>
Temperature (°C):	<u>15.1</u>	<u>15.4</u>	<u>15.4</u>
Conductivity (mS/cm):	<u>0.718</u>	<u>0.701</u>	<u>0.692</u>
Dissolved Oxygen (ppm):	<u>8.69</u>	<u>8.10</u>	<u>7.97</u>

BELL Sample Number: 2001, 2101, 2201, 2301 Sample Time: 2:20 P.M.

Sample Parameters: TCL VO+10, MTBE, TBA, TCL BN+15, and TAL Metals

GROUND WATER FIELD MONITORING DATA LOGProject Name: Kurtsam Realty Date: April 7, 2005Location: Peekskill, New York Well Designation: MW-2Weather: Sunny, 50's Sampler(s): Marianne Brody/Douglas KeaneWell Security/Integrity: OKOrganic Vapor Reading: 0.0 ppmMonitoring Instrument: Photo Ionization Detector (PID)Sounding Method/Device: Heron Interface ProbeWell Diameter/Material: 4-inch/PVCa. Well Depth (ft): 25.14 Purge Method: Submersible Pump, Low Flowb. Depth to LNAPL (ft): NPD Purge Rate (gpm): 0.19c. Depth to Water (ft): 20.29 Purge Start Time: 10:27 A.M.d. Water Column (a-c): 4.85 Purge Finish Time: 11:09 A.M.e. Well Volume (dxConv*): 3.17 Purge Volume (gal): 8.0

* Conversion Factors (gallons/linear foot): 0.1632 (2-inch); 0.6528 (4-inch); 1.4688 (6-inch); 2.6112 (8-inch)

Recovery Comments (i.e., pump dry): Good recoveryOdors/Sheens/Color: No odor/No sheen/Water is cloudy

	Pre-Purge	Post Purge	Post-Sampling
Depth to Water (ft.):	<u>20.29</u>	<u>22.14</u>	<u>22.36</u>
pH:	<u>6.47</u>	<u>6.55</u>	<u>6.53</u>
Temperature (°C):	<u>14.8</u>	<u>15.7</u>	<u>15.7</u>
Conductivity (mS/cm):	<u>1.67</u>	<u>1.09</u>	<u>1.03</u>
Dissolved Oxygen (ppm):	<u>2.33</u>	<u>3.76</u>	<u>3.62</u>

BELL Sample Number: 2002, 2101 Sample Time: 11:10 A.M.Sample Parameters: TCL VO+10, MTBE, TBA, TCL BN+15, and TAL Metals

GROUND WATER FIELD MONITORING DATA LOGProject Name: Kurtsam Realty Date: April 7, 2005Location: Peekskill, New York Well Designation: MW-3Weather: Sunny, 50's Sampler(s): Marianne Brody/Douglas KeaneWell Security/Integrity: OKOrganic Vapor Reading: 0.0 ppmMonitoring Instrument: Photo Ionization Detector (PID)Sounding Method/Device: Heron Interface ProbeWell Diameter/Material: 4-inch/PVCa. Well Depth (ft): 27.62 Purge Method: Submersible Pump, Low Flowb. Depth to LNAPL (ft): NPD Purge Rate (gpm): 0.24c. Depth to Water (ft): 20.16 Purge Start Time: 3:05 P.M.d. Water Column (a-c): 7.46 Purge Finish Time: 3:38 P.M.e. Well Volume (dxConv*): 4.87 Purge Volume (gal): 8.0

* Conversion Factors (gallons/linear foot): 0.1632 (2-inch); 0.6528 (4-inch); 1.4688 (6-inch); 2.6112 (8-inch)

Recovery Comments (i.e., pump dry): Good recoveryOdors/Sheens/Color: No odor/No sheen/Water is clear

	Pre-Purge	Post Purge	Post-Sampling
Depth to Water (ft.):	<u>20.16</u>	<u>21.68</u>	<u>21.71</u>
pH:	<u>6.24</u>	<u>6.08</u>	<u>6.06</u>
Temperature (°C):	<u>13.2</u>	<u>13.7</u>	<u>13.6</u>
Conductivity (mS/cm):	<u>0.320</u>	<u>0.421</u>	<u>0.411</u>
Dissolved Oxygen (ppm):	<u>9.37</u>	<u>9.15</u>	<u>9.11</u>

BELL Sample Number: 2003, 2103 Sample Time: 3:40 P.M.Sample Parameters: TCL VO+10, MTBE, TBA, TCL BN+15, and TAL Metals

GROUND WATER FIELD MONITORING DATA LOG

Project Name: Kurtsam Realty Date: April 7, 2005
Location: Peekskill, New York Well Designation: MW-4
Weather: Sunny, 50's Sampler(s): Marianne Brody/Douglas Keane
Well Security/Integrity: OK
Organic Vapor Reading: 0.0 ppm
Monitoring Instrument: Photo Ionization Detector (PID)
Sounding Method/Device: Heron Interface Probe
Well Diameter/Material: 4-inch/PVC

a. Well Depth (ft): 27.68 Purge Method: Submersible Pump, Low Flow
b. Depth to LNAPL (ft): NPD Purge Rate (gpm): 0.18
c. Depth to Water (ft): 20.35 Purge Start Time: 11:42 A.M.
d. Water Column (a-c): 7.33 Purge Finish Time: 12:15 P.M.
e. Well Volume (dxConv*): 4.39 Purge Volume (gal): 6.0

* Conversion Factors (gallons/linear foot): 0.1632 (2-inch); 0.6528 (4-inch); 1.4688 (6-inch); 2.6112 (8-inch)

Recovery Comments (i.e., pump dry): Good recovery
Odors/Sheens/Color: No odor/No sheen/Water is clear

	Pre-Purge	Post Purge	Post-Sampling
Depth to Water (ft.):	<u>20.35</u>	<u>21.12</u>	<u>21.30</u>
pH:	<u>6.27</u>	<u>6.26</u>	<u>6.23</u>
Temperature (°C):	<u>14.8</u>	<u>15.4</u>	<u>15.3</u>
Conductivity (mS/cm):	<u>1.170</u>	<u>1.170</u>	<u>1.130</u>
Dissolved Oxygen (ppm):	<u>3.01</u>	<u>0.89</u>	<u>0.78</u>

BELL Sample Number: 2004, 2104 Sample Time: 12:20 P.M.
Sample Parameters: TCL VO+10, MTBE, TBA, TCL BN+15, and TAL Metals

GROUND WATER FIELD MONITORING DATA LOG

Project Name: Kurtsam Realty Date: April 7, 2005
Location: Peekskill, New York Well Designation: MW-5
Weather: Sunny, 50's Sampler(s): Marianne Brody/Douglas Keane
Well Security/Integrity: OK
Organic Vapor Reading: 0.0 ppm
Monitoring Instrument: Photo Ionization Detector (PID)
Sounding Method/Device: Heron Interface Probe
Well Diameter/Material: 4-inch/PVC

a. Well Depth (ft): 15.40 Purge Method: Submersible Pump, Low Flow
b. Depth to LNAPL (ft): NPD Purge Rate (gpm): 0.28
c. Depth to Water (ft): 8.89 Purge Start Time: 1:51 P.M.
d. Water Column (a-c): 6.51 Purge Finish Time: 2:27 P.M.
e. Well Volume (dxConv*): 4.25 Purge Volume (gal): 10.0

* Conversion Factors (gallons/linear foot): 0.1632 (2-inch); 0.6528 (4-inch); 1.4688 (6-inch); 2.6112 (8-inch)

Recovery Comments (i.e., pump dry): Good Recovery
Odors/Sheens/Color: No odor/No sheen/Water is cloudy

	Pre-Purge	Post Purge	Post-Sampling
Depth to Water (ft.):	<u>8.89</u>	<u>11.07</u>	<u>12.11</u>
pH:	<u>7.47</u>	<u>6.66</u>	<u>6.64</u>
Temperature (°C):	<u>10.4</u>	<u>8.7</u>	<u>8.9</u>
Conductivity (mS/cm):	<u>0.281</u>	<u>0.162</u>	<u>0.167</u>
Dissolved Oxygen (ppm):	<u>10.81</u>	<u>9.69</u>	<u>9.52</u>

BELL Sample Number: 2005, 2105 Sample Time: 2:30 P.M.

Sample Parameters: TCL VO+10, MTBE, TBA, TCL BN+15, and TAL Metals

GROUND WATER FIELD MONITORING DATA LOGProject Name: Kurtsam Realty Date: April 7, 2005Location: Peekskill, New York Well Designation: MW-6Weather: Sunny, 50's Sampler(s): Marianne Brody/Douglas KeaneWell Security/Integrity: OKOrganic Vapor Reading: 0.0 ppmMonitoring Instrument: Photo Ionization Detector (PID)Sounding Method/Device: Heron Water Level IndicatorWell Diameter/Material: 4-inch/PVCa. Well Depth (ft): 31.80 Purge Method: Submersible Pump, Low Flowb. Depth to LNAPL (ft): NPD Purge Rate (gpm): 0.28c. Depth to Water (ft): 20.81 Purge Start Time: 11:42 A.M.d. Water Column (a-c): 10.99 Purge Finish Time: 12:30 P.M.e. Well Volume (dxConv*): 7.17 Purge Volume (gal): 13.5

* Conversion Factors (gallons/linear foot): 0.1632 (2-inch); 0.6528 (4-inch); 1.4688 (6-inch); 2.6112 (8-inch)

Recovery Comments (i.e., pump dry): Good RecoveryOdors/Sheens/Color: No odor/No sheen/Water is cloudy

	Pre-Purge	Post Purge	Post-Sampling
Depth to Water (ft.):	<u>20.81</u>	<u>21.48</u>	<u>21.91</u>
pH:	<u>6.26</u>	<u>6.37</u>	<u>6.36</u>
Temperature (°C):	<u>15.4</u>	<u>16.7</u>	<u>16.5</u>
Conductivity (mS/cm):	<u>10.00</u>	<u>3.96</u>	<u>3.87</u>
Dissolved Oxygen (ppm):	<u>0.49</u>	<u>0.01</u>	<u>0.01</u>

BELL Sample Number: 2006, 2106 Sample Time: 12:35 P.M.Sample Parameters: TCL VO+10, MTBE, TBA, TCL BN+15, and TAL Metals

GROUND WATER FIELD MONITORING DATA LOGProject Name: Kurtsam Realty Date: November 13, 2002Location: Peekskill, New York Well Designation: MW-7Weather: Rain, 50's Sampler(s): Michael Kirchenbauer/Douglas KeaneWell Security/Integrity: OKOrganic Vapor Reading: 0.0 ppmMonitoring Instrument: Organic Vapor Meter (OVM)Sounding Method/Device: Heron Water Level IndicatorWell Diameter/Material: 4-inch/PVCa. Well Depth (ft): 29.19 Purge Method: Submersible Pump, Low Flowb. Depth to LNAPL (ft): NPD Purge Rate (gpm): 0.27c. Depth to Water (ft): 20.09 Purge Start Time: 12:00 P.M.d. Water Column (a-c): 9.1 Purge Finish Time: 1:06 P.M.e. Well Volume (dxConv*): 5.94 Purge Volume (gal): 18.0

* Conversion Factors (gallons/linear foot): 0.1632 (2-inch); 0.6528 (4-inch); 1.4688 (6-inch); 2.6112 (8-inch)

Recovery Comments (i.e., pump dry): Good RecoveryOdors/Sheens/Color: No odor; No sheen; Water is slightly silty

	Pre-Purge	Post Purge	Post-Sampling
Depth to Water (ft.):	<u>20.09</u>	<u>21.01</u>	<u>21.01</u>
pH:	<u>6.05</u>	<u>5.90</u>	<u>5.90</u>
Temperature (°C):	<u>18.1</u>	<u>18.5</u>	<u>18.4</u>
Conductivity (mS/cm):	<u>1.03</u>	<u>1.06</u>	<u>1.06</u>
Dissolved Oxygen (ppm):	<u>7.91</u>	<u>7.85</u>	<u>7.85</u>

BELL Sample Number: 2007 Sample Time: Metals: 1:07 P.M., VO+10 & BN+15: 1:15 P.M.Sample Parameters: TCL VO+10, TCL BN+15, TAL Metals

GROUND WATER FIELD MONITORING DATA LOG

Project Name: Kurtzam Realty Date: November 13, 2002

Location: Peekskill, New York Well Designation: MW-8

Weather: Rain, 50's Sampler(s): Michael Kirchenbauer/Douglas Keane

Well Security/Integrity: OK

Organic Vapor Reading: 0.0 ppm

Monitoring Instrument: Organic Vapor Meter (OVM)

Sounding Method/Device: Heron Water Level Indicator

Well Diameter/Material: 4-inch/PVC

a. Well Depth (ft): 24.74 Purge Method: Submersible Pump, Low Flow

b. Depth to LNAPL (ft): NPD Purge Rate (gpm): 0.190

c. Depth to Water (ft): 18.71 Purge Start Time: 10:20 A.M.

d. Water Column (a-c): 6.03 Purge Finish Time: 11:23 A.M.

e. Well Volume (dxConv*): 3.94 Purge Volume (gal): 12.0

* Conversion Factors (gallons/linear foot): 0.1632 (2-inch); 0.6528 (4-inch); 1.4688 (6-inch); 2.6112 (8-inch)

Recovery Comments (i.e., pump dry): Good Recovery

Odors/Sheens/Color: No odor; No sheen; Water is slightly silty

	Pre-Purge	Post Purge	Post-Sampling
Depth to Water (ft.):	18.71	18.70	18.70
pH:	6.56	6.56	6.56
Temperature (°C):	17.8	19.9	19.7
Conductivity (mS/cm):	3.53	3.15	3.15
Dissolved Oxygen (ppm):	-0.30	-0.52	-0.52

BELL Sample Number: 2008 Sample Time: Metals: 11:22 A.M., VO+10 & BN+15: 11:26 A.M.

Sample Parameters: TCL VO+10, TCL BN+15, TAL Metals

GROUND WATER FIELD MONITORING DATA LOG

Project Name: Kurtsam Realty Date: April 7, 2005
Location: Peekskill, New York Well Designation: MW-1
Weather: Sunny, 50's Sampler(s): Marianne Brody/Douglas Keane
Well Security/Integrity: OK
Organic Vapor Reading: 0.0 ppm
Monitoring Instrument: Photo Ionization Detector (PID)
Sounding Method/Device: Heron Interface Probe
Well Diameter/Material: 4-inch/PVC

a. Well Depth (ft): 25.43 Purge Method: Submersible Pump, Low Flow
b. Depth to LNAPL (ft): NPD Purge Rate (gpm): 0.19
c. Depth to Water (ft): 18.84 Purge Start Time: 1:46 P.M.
d. Water Column (a-c): 6.59 Purge Finish Time: 2:13 P.M.
e. Well Volume (dxConv*): 4.30 Purge Volume (gal): 5.0

* Conversion Factors (gallons/linear foot): 0.1632 (2-inch); 0.6528 (4-inch); 1.4688 (6-inch); 2.6112 (8-inch)

Recovery Comments (i.e., pump dry): Good recovery
Odors/Sheens/Color: No odor/No sheen/Water is silty.

	Pre-Purge	Post Purge	Post-Sampling
Depth to Water (ft.):	<u>18.84</u>	<u>19.78</u>	<u>20.23</u>
pH:	<u>6.82</u>	<u>6.45</u>	<u>6.37</u>
Temperature (°C):	<u>15.1</u>	<u>15.4</u>	<u>15.4</u>
Conductivity (mS/cm):	<u>0.718</u>	<u>0.701</u>	<u>0.692</u>
Dissolved Oxygen (ppm):	<u>8.69</u>	<u>8.10</u>	<u>7.97</u>

BELL Sample Number: 2001, 2101, 2201, 2301 Sample Time: 2:20 P.M.

Sample Parameters: TCL VO+10, MTBE, TBA, TCL BN+15, and TAL Metals

GROUND WATER FIELD MONITORING DATA LOG

Project Name: Kurtsam Realty Date: April 7, 2005Location: Peekskill, New York Well Designation: MW-2Weather: Sunny, 50's Sampler(s): Marianne Brody/Douglas KeaneWell Security/Integrity: OKOrganic Vapor Reading: 0.0 ppmMonitoring Instrument: Photo Ionization Detector (PID)Sounding Method/Device: Heron Interface ProbeWell Diameter/Material: 4-inch/PVCa. Well Depth (ft): 25.14 Purge Method: Submersible Pump, Low Flowb. Depth to LNAPL (ft): NPD Purge Rate (gpm): 0.19c. Depth to Water (ft): 20.29 Purge Start Time: 10:27 A.M.d. Water Column (a-c): 4.85 Purge Finish Time: 11:09 A.M.e. Well Volume (dxConv*): 3.17 Purge Volume (gal): 8.0

* Conversion Factors (gallons/linear foot): 0.1632 (2-inch); 0.6528 (4-inch); 1.4688 (6-inch); 2.6112 (8-inch)

Recovery Comments (i.e., pump dry): Good recoveryOdors/Sheens/Color: No odor/No sheen/Water is cloudy

	Pre-Purge	Post Purge	Post-Sampling
Depth to Water (ft.):	<u>20.29</u>	<u>22.14</u>	<u>22.36</u>
pH:	<u>6.47</u>	<u>6.55</u>	<u>6.53</u>
Temperature (°C):	<u>14.8</u>	<u>15.7</u>	<u>15.7</u>
Conductivity (mS/cm):	<u>1.67</u>	<u>1.09</u>	<u>1.03</u>
Dissolved Oxygen (ppm):	<u>2.33</u>	<u>3.76</u>	<u>3.62</u>

BELL Sample Number: 2002, 2101 Sample Time: 11:10 A.M.Sample Parameters: TCL VO+10, MTBE, TBA, TCL BN+15, and TAL Metals

GROUND WATER FIELD MONITORING DATA LOGProject Name: Kurtsam Realty Date: April 7, 2005Location: Peekskill, New York Well Designation: MW-3Weather: Sunny, 50's Sampler(s): Marianne Brody/Douglas KeaneWell Security/Integrity: OKOrganic Vapor Reading: 0.0 ppmMonitoring Instrument: Photo Ionization Detector (PID)Sounding Method/Device: Heron Interface ProbeWell Diameter/Material: 4-inch/PVCa. Well Depth (ft): 27.62 Purge Method: Submersible Pump, Low Flowb. Depth to LNAPL (ft): NPD Purge Rate (gpm): 0.24c. Depth to Water (ft): 20.16 Purge Start Time: 3:05 P.M.d. Water Column (a-c): 7.46 Purge Finish Time: 3:38 P.M.e. Well Volume (dxConv*): 4.87 Purge Volume (gal): 8.0

* Conversion Factors (gallons/linear foot): 0.1632 (2-inch); 0.6528 (4-inch); 1.4688 (6-inch); 2.6112 (8-inch)

Recovery Comments (i.e., pump dry): Good recoveryOdors/Sheens/Color: No odor/No sheen/Water is clear

	Pre-Purge	Post Purge	Post-Sampling
Depth to Water (ft.):	<u>20.16</u>	<u>21.68</u>	<u>21.71</u>
pH:	<u>6.24</u>	<u>6.08</u>	<u>6.06</u>
Temperature (°C):	<u>13.2</u>	<u>13.7</u>	<u>13.6</u>
Conductivity (mS/cm):	<u>0.320</u>	<u>0.421</u>	<u>0.411</u>
Dissolved Oxygen (ppm):	<u>9.37</u>	<u>9.15</u>	<u>9.11</u>

BELL Sample Number: 2003, 2103 Sample Time: 3:40 P.M.Sample Parameters: TCL VO+10, MTBE, TBA, TCL BN+15, and TAL Metals

GROUND WATER FIELD MONITORING DATA LOGProject Name: Kurtsam Realty Date: April 7, 2005Location: Peekskill, New York Well Designation: MW-4Weather: Sunny, 50's Sampler(s): Marianne Brody/Douglas KeaneWell Security/Integrity: OKOrganic Vapor Reading: 0.0 ppmMonitoring Instrument: Photo Ionization Detector (PID)Sounding Method/Device: Heron Interface ProbeWell Diameter/Material: 4-inch/PVCa. Well Depth (ft): 27.68 Purge Method: Submersible Pump, Low Flowb. Depth to LNAPL (ft): NPD Purge Rate (gpm): 0.18c. Depth to Water (ft): 20.35 Purge Start Time: 11:42 A.M.d. Water Column (a-c): 7.33 Purge Finish Time: 12:15 P.M.e. Well Volume (dxConv*): 4.39 Purge Volume (gal): 6.0

* Conversion Factors (gallons/linear foot): 0.1632 (2-inch); 0.6528 (4-inch); 1.4688 (6-inch); 2.6112 (8-inch)

Recovery Comments (i.e., pump dry): Good recoveryOdors/Sheens/Color: No odor/No sheen/Water is clear

	Pre-Purge	Post Purge	Post-Sampling
Depth to Water (ft.):	<u>20.35</u>	<u>21.12</u>	<u>21.30</u>
pH:	<u>6.27</u>	<u>6.26</u>	<u>6.23</u>
Temperature (°C):	<u>14.8</u>	<u>15.4</u>	<u>15.3</u>
Conductivity (mS/cm):	<u>1.170</u>	<u>1.170</u>	<u>1.130</u>
Dissolved Oxygen (ppm):	<u>3.01</u>	<u>0.89</u>	<u>0.78</u>

BELL Sample Number: 2004, 2104 Sample Time: 12:20 P.M.Sample Parameters: TCL VO+10, MTBE, TBA, TCL BN+15, and TAL Metals

GROUND WATER FIELD MONITORING DATA LOGProject Name: Kurtsam Realty Date: April 7, 2005Location: Peekskill, New York Well Designation: MW-5Weather: Sunny, 50's Sampler(s): Marianne Brody/Douglas KeaneWell Security/Integrity: OKOrganic Vapor Reading: 0.0 ppmMonitoring Instrument: Photo Ionization Detector (PID)Sounding Method/Device: Heron Interface ProbeWell Diameter/Material: 4-inch/PVCa. Well Depth (ft): 15.40 Purge Method: Submersible Pump, Low Flowb. Depth to LNAPL (ft): NPD Purge Rate (gpm): 0.28c. Depth to Water (ft): 8.89 Purge Start Time: 1:51 P.M.d. Water Column (a-c): 6.51 Purge Finish Time: 2:27 P.M.e. Well Volume (dxConv*): 4.25 Purge Volume (gal): 10.0

* Conversion Factors (gallons/linear foot): 0.1632 (2-inch); 0.6528 (4-inch); 1.4688 (6-inch); 2.6112 (8-inch)

Recovery Comments (i.e., pump dry): Good RecoveryOdors/Sheens/Color: No odor/No sheen/Water is cloudy

	Pre-Purge	Post Purge	Post-Sampling
Depth to Water (ft.):	<u>8.89</u>	<u>11.07</u>	<u>12.11</u>
pH:	<u>7.47</u>	<u>6.66</u>	<u>6.64</u>
Temperature (°C):	<u>10.4</u>	<u>8.7</u>	<u>8.9</u>
Conductivity (mS/cm):	<u>0.281</u>	<u>0.162</u>	<u>0.167</u>
Dissolved Oxygen (ppm):	<u>10.81</u>	<u>9.69</u>	<u>9.52</u>

BELL Sample Number: 2005, 2105 Sample Time: 2:30 P.M.Sample Parameters: TCL VO+10, MTBE, TBA, TCL BN+15, and TAL Metals

GROUND WATER FIELD MONITORING DATA LOGProject Name: Kurtsam Realty Date: April 7, 2005Location: Peekskill, New York Well Designation: MW-6Weather: Sunny, 50's Sampler(s): Marianne Brody/Douglas KeaneWell Security/Integrity: OKOrganic Vapor Reading: 0.0 ppmMonitoring Instrument: Photo Ionization Detector (PID)Sounding Method/Device: Heron Water Level IndicatorWell Diameter/Material: 4-inch/PVCa. Well Depth (ft): 31.80 Purge Method: Submersible Pump, Low Flowb. Depth to LNAPL (ft): NPD Purge Rate (gpm): 0.28c. Depth to Water (ft): 20.81 Purge Start Time: 11:42 A.M.d. Water Column (a-c): 10.99 Purge Finish Time: 12:30 P.M.e. Well Volume (dxConv*): 7.17 Purge Volume (gal): 13.5

* Conversion Factors (gallons/linear foot): 0.1632 (2-inch); 0.6528 (4-inch); 1.4688 (6-inch); 2.6112 (8-inch)

Recovery Comments (i.e., pump dry): Good RecoveryOdors/Sheens/Color: No odor/No sheen/Water is cloudy

	Pre-Purge	Post Purge	Post-Sampling
Depth to Water (ft.):	<u>20.81</u>	<u>21.48</u>	<u>21.91</u>
pH:	<u>6.26</u>	<u>6.37</u>	<u>6.36</u>
Temperature (°C):	<u>15.4</u>	<u>16.7</u>	<u>16.5</u>
Conductivity (mS/cm):	<u>10.00</u>	<u>3.96</u>	<u>3.87</u>
Dissolved Oxygen (ppm):	<u>0.49</u>	<u>0.01</u>	<u>0.01</u>

BELL Sample Number: 2006, 2106 Sample Time: 12:35 P.M.Sample Parameters: TCL VO+10, MTBE, TBA, TCL BN+15, and TAL Metals

APPENDIX 7

DER-31 / Green Remediation

New York State Department of Environmental Conservation

DEC Program Policy

Issuing Authority: Val Washington

Title: Deputy Commissioner
Office of Remediation and Materials Management

Date Issued: August 11, 2010

Latest Date Revised: January 20, 2011

I. Summary

This document identifies the New York State Department of Environmental Conservation (DEC) Division of Environmental Remediation (DER) approach to remediating sites in the context of the larger environment, a concept known as green remediation. "Green Remediation" (or greener cleanups) can be defined as *"the practice of considering all environmental effects of remedy implementation and incorporating options to minimize the environmental footprint of cleanup actions."* It is intended to be a holistic approach which improves the overall sustainability of the cleanups by promoting the use of more sustainable practices and technologies. Such practices and technologies are, for example, less disruptive to the environment, generate less waste, increase reuse and recycling, and emit fewer pollutants, including greenhouse gases (GHGs), to the atmosphere. The approach also recognizes the potential for positive economic and social benefits of site reuse and supports coordination of site reuse and remediation to effect the most beneficial and sustainable reuse of the site.

This document provides concepts and techniques of green remediation and guidance on how to apply them to DER's remedial programs, but does not specify methods or criteria to be used to quantify the effectiveness of the various green remediation concepts or remedial alternatives. The concepts will be considered and implemented to the extent feasible, and documented.

This policy applies to all phases of the site cleanup process, from investigation through completion of remediation for sites in the Spill Response Program, Inactive Hazardous Waste Disposal Site Remedial Program (State Superfund Program), Environmental Restoration Program, Brownfield Cleanup Program, Voluntary Cleanup Program, and the Resource Conservation and Recovery Act (RCRA) Program.

II. Policy

DER is dedicated to developing and promoting innovative cleanup strategies that restore contaminated sites to productive use, promote environmental stewardship, and reduce associated costs while minimizing ancillary environmental impacts from these cleanups. Applying green remediation concepts, such as minimizing energy consumption, reducing GHG emissions, maximizing the reuse of land and the recycling of materials, and conserving natural resources such as soil, water and habitat helps to achieve that objective. Green remediation concepts will be applied to the existing (ongoing) cleanups and future cleanup of contaminated properties. This policy does not modify or replace existing remedial program goals. It is also not intended to encourage, and does not justify, implementation of a "no action" or lesser remedy when a more comprehensive remedy is called for, appropriate, and feasible. *The priority remains implementing remedies that are protective of public health and the environment.*

DER remains committed to implementing protective remedies in each program. Applying green and sustainable principles and technologies to each program, consistent with each program's enabling legislation and regulations, will increase the long term effectiveness, permanence and cost effectiveness of the cleanups and will minimize the overall environmental footprint of remediation.

Consistent with existing laws, including Environmental Conservation Law (ECL) Articles 1 and 3, regulations, DEC policy and with the growing national trend, this policy establishes an expectation (Section V) for proactive consideration and/or application of green remediation techniques to all phases of work in existing and future cleanups.

The procedures set forth in this policy document are intended for the use and guidance of both DEC staff and remedial parties. They are not intended to create any substantive or procedural rights enforceable by any party in administrative or judicial litigation with DEC. DEC reserves the right to act at variance with these procedures to address site-specific circumstances and to change them at any time.

III. Purpose and Background

Remediation clearly benefits the environment at and near the site by making the site protective of public health and the environment and by reducing or eliminating localized contamination. There is an environmental footprint (footprint), however, inherent in remediating sites. A remedy may, for example, require significant energy and material use, and contribute emissions of carbon dioxide (CO₂) and other GHGs to the atmosphere. It can also impact, for example, land use and aquifer recharge. This footprint can extend beyond the site property lines and even beyond adjacent properties to the larger environment. The larger environment may include, for example, the atmosphere at a significant distance from the site due to the emissions from power generation which provides electricity to operate remedial equipment. Decisions made during the course of planning and implementing the investigation and remediation impact the footprint of the cleanup.

Cleanup of our sites must be considered in a larger context, as demanded by issues such as GHG emissions and climate impacts, sprawl, and the effects of energy generation and use. Increasingly, cleanup programs across the nation are considering remedial activities that minimize ancillary environmental impacts by minimizing energy consumption, conserving natural resources, maximizing the reuse of land and recycling of materials. As cleanup technologies and incentives continue to evolve, green remediation strategies offer significant potential for increasing the net benefit of cleanup, cost savings, and the universe of long-term property reuse options without compromising cleanup goals.

Many of the green remediation techniques such as optimizing remedial system operation or implementing enhanced biological degradation have long been available and have been applied to cleanups in New York to yield greater efficiency, cost savings and reduced impact. The purpose of this policy on green remediation is to consider cleanups in the context of the larger environment and consistently and pro-actively apply more sustainable methods to remediate the site while still protecting public health and the environment and striving to achieve the established cleanup goals. This will result in cleanups that are more sustainable, meet long-term needs of all stakeholders, protect valuable state resources such as soil, water, habitat, and the atmosphere while respecting cost concerns.

IV. Responsibility

The responsibility for maintaining and updating this policy lies with the Bureau of Technical Support in DER. DER program staff are responsible for implementing this policy, with input from other involved DEC divisions.

V. Procedure

A. General Procedures

The protection of public health and the environment threshold and programmatic requirements must always be met when undertaking investigation and remediation. Green remediation concepts and techniques will be considered during all stages of the remedial program from site characterization through implementation of the remedy, to long-term site management obligations with the goal of improving the sustainability of the cleanup. Specific techniques are provided in Attachment 1. The major green remediation concepts below, and the attached green remediation techniques, will be considered and used to the extent feasible by remedial parties and DEC's staff and contractors.

- Considering the environmental impacts of treatment technologies and remedy stewardship over the long term when choosing a site remedy;
- Reducing direct and indirect GHG and other emissions;
- Increasing energy efficiency and minimizing use of non-renewable energy;
- Conserving and efficiently managing resources and materials;
- Reducing waste, increasing recycling and increasing reuse of materials which would otherwise be considered a waste;
- Maximizing habitat value and creating habitat when possible;
- Fostering green and healthy communities and working landscapes which balance ecological, economic and social goals; and
- Integrating the remedy with the end use where possible and encouraging green and sustainable re-development.

Opportunities to increase the sustainability of site cleanups exist throughout the remedial process. The application of these concepts and techniques to the investigation, design, construction, operation, and monitoring phases is fairly straightforward. Relevant techniques should be pro-actively selected from the list in Attachment 1 or from other sources, combined to form the most sustainable approach for the site and/or remedial phase and applied.

Additionally, there are a number of green remediation techniques which by their nature are easy to implement, and either save money or are only negligibly more expensive. DEC expects that the techniques identified below will be implemented at sites unless a site-specific evaluation demonstrates impracticability or favors an alternative green approach.

- Use of renewable energy and/or the purchase of renewable energy credits (RECs) or a combination of the two techniques to offset 100% of the electricity demand at the site.¹

¹ Purchase of "green Power" through an energy services company (ESCO) generally costs less than 0.5% of the overall operation and maintenance cost of a remedy. This cost may be offset by more efficient designs.

- Reduce vehicle idling. All vehicles, both on and offroad (including construction equipment) will be shut off when not in use for more than 5 minutes, consistent with 6 NYCRR Part 217 Motor Vehicle Emissions, Subpart 217-3 Idling Prohibition For Heavy Duty Vehicles.
- Design cover systems, to the extent possible, to be usable for alternate uses such as habitat or passive recreation, require minimal maintenance (e.g. less mowing), allow for infiltration of storm water and/or be integrated with the next use of the site.
- Beneficially reuse materials that would otherwise be considered a waste (e.g. crushed clean concrete as base or fill).
- Use of Ultra Low Sulfur Diesel (ULSD).

B. Role of Sustainability in Remedy Selection

Frequently the greatest benefit to the environment from the application of the green remediation concept can be realized at the remedy selection phase. Many factors are considered when selecting a remedy (e.g. the nine remedy selection criteria in 6NYCRR Part 375). Sustainability/green remediation is an aspect of one or more of the existing criteria. DEC is utilizing these concepts to support selection of the best remedy for a site. The consideration of sustainability in remedy selection is consistent with existing statutes, regulations, and guidance. Remedies will still be selected in accordance with applicable regulations, standards, policies, and guidance documents and all selected remedies shall still, at a minimum:

- protect public health and the environment;
- address source removal and control;
- address groundwater protection and restoration; and
- strive to meet the cleanup goal of the respective program (e.g., pre-disposal conditions for State Superfund sites; pre-release for petroleum spills).

All remedial parties, DER staff, and DER standby consultants and contractors should now consider sustainability/green remediation concepts when assembling and evaluating remedial alternatives.

Remedies selected under programs subject to 6NYCRR Part 375 (i.e., the State Superfund Program, Brownfield Cleanup Program, and Environmental Restoration Program), shall still be selected in accordance with the nine remedy selection criteria set forth at 375-1.8(f). Under Part 375, sustainability is primarily evaluated as part of the long-term effectiveness and permanence criterion and the short-term impacts and effectiveness criterion, but it may affect implementability, cost effectiveness, community acceptance, and land use.

Determining which remedial alternative will have the greatest net benefit to the environment or create the least direct, indirect, or life-cycle impact is not always obvious, and can be complex. Both quantitative and qualitative green metrics can help in this determination. However, these metrics can be difficult to normalize across technologies and alternatives. In order to compare the potential impacts of remedial alternatives, the following specific evaluations will be included as indicated in alternatives analysis documents (including feasibility and corrective measures studies).

- At a minimum, a qualitative assessment of total impacts related to the remedial alternatives being considered (e.g., direct and indirect sources of GHGs and relative scale of the GHGs, material reused on site or disposed, travel required to maintain the remedy) will be discussed

and relative impacts of the remedies compared. For example, "Alternative A uses significantly less electricity over the anticipated life of the remedy than the other alternatives and therefore results in less indirect emissions of GHGs. However, Alternative A requires the use of more heavy equipment for transportation, resulting in greater direct emissions and fuel use".

- If necessary to differentiate between remedies that offer equivalent public health and on/near site environmental protection, relevant and readily calculable metrics related to direct and indirect impacts for each alternative should be quantified. DER is not requiring a life-cycle analysis to determine upstream impacts as part of this quantitative analysis. Normalizing appropriate data to a common unit such as tons GHGs or CO₂ equivalents may be helpful and would be acceptable. Quantitative tools for calculating the relative impacts of various remedies are becoming widely available and may be used. All relevant metrics should be included in the analysis. The following are examples of the types of metrics that may be included.
 - Energy or emissions required to construct and operate the remedy. Direct emissions that are most relevant include stationary combustion of fuels (for generation of electricity, heat, etc.) and mobile combustion of fuels (for construction and transportation, including transportation of materials and waste and travel for operation and maintenance). Direct emissions could also include fugitive emissions and emissions from physical and/or chemical processes on site. Indirect energy use or emissions which are most relevant are related to generation of purchased electricity, heat, etc.;
 - Fuel use (e.g. gallons of diesel fuel or gasoline);
 - Volume or weight of material (e.g. construction and demolition debris) reused on site;
 - Tons of waste disposal avoided;
 - Linear feet of stream bank returned to natural conditions (e.g. from bulkhead to vegetated); and
 - Any other large direct or indirect inputs, emissions or potential emission sources may also be considered.
- Quantification of upstream emissions from the extraction, production and transportation of purchased materials and fuels is not anticipated to be required to differentiate remedial alternatives. DEC may consider any voluntary submission of upstream emissions data. This analysis, if provided, should be completed using widely available and generally accepted tools and techniques, and following generally accepted protocols such as the Climate Registry General Reporting Protocol. DEC could request upstream emissions quantification if needed to support remedial decisions.

DER will consider all sustainability and green remediation information presented, including qualitative and quantitative metrics. Energy use, emissions, effect on habitat and site reuse, and other sustainability issues will help to differentiate remedial alternatives that offer the same or similar level of on/near site environmental and public health protection. The concept of green remediation will not be used to justify "no action" or to implement a lesser remedy when a more comprehensive remedy is appropriate and feasible. *Sustainability will be considered as part of the evaluation of an appropriate remedy.* Alternatives with the following characteristics will likely be the greenest:

- Fewer short-term and long-term ancillary impacts to the environment;

- Fewer GHG emissions;
- Smaller environmental footprint;
- Achieves the remedial action objectives more sustainably;
- Allows for the greenest reuse;
- Achieves a complete and permanent cleanup; and
- Permanently and significantly reduces the toxicity, mobility or volume of contamination.

C. Documentation of Green Remediation Efforts

All green remediation efforts will be documented by the project lead (State, RP, etc.). DER is not requiring that the green remediation documentation conform to a particular format at this time. The information may be included in the document text, included as an appendix, or submitted and referenced as a separate supporting document such as a sustainability analysis report.

- In general, since green remediation/sustainability concepts are to be considered and/or implemented in all phases of site investigation and cleanup, any report of work during these phases which is submitted to DEC should describe the green remediation/sustainability efforts.
- All remedial alternatives analysis and decision documents will describe the green remediation principles considered in the evaluation and/or selection of the remedy, will present or reference any qualitative and/or quantitative sustainability information generated in support of remedy selection, and will discuss how the impacts can be minimized during implementation. Decision documents will also require that green remediation and sustainability efforts be implemented to the extent feasible in the design and implementation of the remedy.
- Corrective action modules for new Hazardous Waste Management Permits or Permit renewals issued under 6 NYCRR 373-2 (the RCRA Program) shall include conditions which require the Permittee to consider green remediation principles in all phases of the remedial process and to document their evaluation.
- In addition to statutory and regulatory requirements, final engineering reports must include a discussion of the green remediation practices/technologies employed throughout the remedial program.
- Green remediation principles must also be considered during each periodic review and remedial system optimization review conducted during the site management phase. The reports of these reviews will discuss the green remediation principles employed during the past reporting cycle and any associated quantitative or qualitative reductions in impacts to the environment and will make recommendations that can be employed during the next reporting cycle.

VI. Related References

Web Sites:

NYSDEC Mission and Issue Priorities
NYSDEC Environmental Cleanup and Brownfields
EPA Green Remediation
ASTSWMO Greener Cleanups Information Resources

Documents:

EPA Green Remediation Primer: Incorporating Sustainable Environmental Practices into Remediation of Contaminated Sites EPA 542-R-08-002, April 2008.

EPA Draft Green Revitalization Think Piece, December 26, 2007.

Smart Energy Resources Guide (SERG) EPA/600/R-08/049, March 2008.

Introduction to Energy Conservation and Production at Waste Cleanup Sites, EPA Engineering Forum Issue Paper, EPA 542-S-04-001, May 2004.

Better Site Design, NYSDEC, Division of Water, April 2008.

EPA Case Study: "A Construction and Demolition Waste Reduction Success Story", EPA 560-F-09-001, January 2009.

Recover Your Resources: Reduce, Reuse, and Recycle Construction and Demolition Materials at Land Revitalization Projects, EPA 560-F-08-242, April 2008.

Assessing Energy Use and Greenhouse Gas Emissions in Environmental Impact Statements, NYSDEC Commissioner Policy, Office of Air, Energy and Climate, July 15, 2009.

CP-49/Climate Change and DEC Action, NYSDEC Commissioner Policy, October 2010.

Air Force Center for Engineering and the Environment Sustainable Remediation Tool (SRT™)

Navy/Army Corps/Battelle SiteWise™ Tool

Protocols for life-cycle GHG emissions estimation:

- EPA's Climate Leaders Program Design Principles Guidance and Climate Leaders Basic Information
- Climate Registry General Reporting Protocol

Attachment 1
Examples of Green Remediation Techniques

Examples of Green Remediation Techniques Applicable to all Phases of the Remedial Programs
Increase energy efficiency/Minimize total energy use and direct and indirect CO ₂ /GHG emissions to the atmosphere
Reduce emissions of air pollutants
Minimize habitat disturbance and create or enhance habitat or usable land
Conserve natural resources such as soil and water; promote the sequestration of carbon through reforestation or afforestation
Minimize fresh water consumption and maximize water reuse during daily operations and treatment processes
Prevent long-term erosion, surface runoff, and off-site water quality impacts
Prevent unintended soil compaction
Minimize waste or implement beneficial use of materials that would otherwise be considered a waste
Minimize equipment and truck idling and use sustainably produced biofuels to reduce discharges of pollutants and GHGs to the atmosphere
Utilize clean diesel (new or retrofitted) equipment to reduce emissions to the atmosphere
Minimize truck travel for disposal to save energy, reduce emissions, reduce localized noise, vibration, and wear and tear on roads
Minimize use of heavy equipment to save energy and reduce emissions
Examples of Green Remediation Techniques Applicable to the Remedy Selection, Design and/or Construction Phases
Maintain, use, mimic or enhance natural processes where possible to effect remediation
Encourage development and evaluation of low energy alternatives such as enhanced bioremediation, phytoremediation, permeable reactive barriers (PRBs), source removal with monitored natural attenuation (MNA), enhanced attenuation of chlorinated organics (EACCO), engineered wetlands, and remedies which can be driven to MNA or monitoring only (e.g., remedies which will not need external power indefinitely)
Use renewable energy if possible, or purchase Renewable Energy Credits
Evaluate if a remediation system could be protective with an intermittent energy supply (e.g., pumping or venting only during daytime or adequate winds)
Encourage the use of remediation technologies that permanently destroy contamination to reduce impacts associated with long-term site management
Address sources more aggressively to reduce long-term operation and maintenance of treatment or containment systems

Design for efficiency (e.g., size motors optimally) to reduce indirect emissions of electricity production
Design adaptable systems (e.g., systems that use less energy as the site cleans up)
Incorporate green building design
Reuse existing buildings and infrastructure to reduce waste
Reuse and Recycle construction and demolition (C&D) debris and other materials
Maximize beneficial use of materials that would otherwise be considered a waste
Integrate remedial design with contemplated reuse of site
Design cover systems to be usable (e.g., habitat, recreation, renewable energy generation, bio-fuel crop production)
Design storm water management or cover systems to recharge aquifers/minimize the creation or replacement of impervious surfaces
Use native vegetation requiring little or no irrigation
Reclaim treated water for beneficial use such as process water or irrigation
Examples of Green Remediation Techniques Applicable to Site Management
Focus on optimization to reduce energy use or time to closure
Increase energy efficiency/minimize total energy use and CO ₂ /GHG emissions to the air by replacing equipment, altering operation or shutting down unnecessary equipment
Improve reliability to reduce O&M visit frequency
Evaluate the possibility of switching to renewable energy either directly (generated on site, off-grid or grid-tied), or indirectly through a utility (green power purchase program)
Complete the Remedial Site Optimization Process to identify opportunities to reduce energy and other impacts
Incorporate sustainability into periodic reviews to identify opportunities to reduce energy and other impacts
Assess if an energy intensive remedy is still the best remedy for the site
Evaluate the possibility of MNA for sites where this was not originally considered