

Limited Environmental Survey
Steam Tunnels and Associated Pits
Naval Station Great Lakes
Great Lakes, Illinois

Prepared for:

Department of the Navy
Naval Station Great Lakes
Naval Facilities Engineering Command (NAVFAC), Midwest
201 Decatur Avenue, Building 1A
Great Lakes, Illinois 60088

Prepared by:



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EDI Project No. 1602.029.01

February 3, 2012 Approved for Release By

A handwritten signature in black ink, appearing to read "Gary P. Flentge", written over a horizontal line.

Gary P. Flentge, MPH, LEHP, REA
Vice President, Industrial Hygiene

A handwritten signature in black ink, appearing to read "Craig A. Chambers", written over a horizontal line.

Craig A. Chambers, PE
Illinois Project Designer #100-18299



Exp. Date: Nov. 30, 2013



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February 3, 2012

Mr. Carlo Luciano
Naval Station Great Lakes
NAVFAC Midwest IPT
Building 1A
201 Decatur Avenue
Great Lakes, Illinois 60088

SUBJECT: Limited Environmental Survey– Steam Tunnels and Associated Pits
Naval Station Great Lakes
Great Lakes, Illinois
EDI Project No. 1602.029.01

Dear Mr. Luciano:

Enclosed please find the Limited Environmental Survey for Steam Tunnels and Associated Pits, located on the Naval Station Great Lakes in Great Lakes, Illinois, prepared by Environmental Design International inc. (EDI)

EDI performed the survey and identified and sampled suspect asbestos-containing materials (ACM) for the accessible steam pipe insulation materials and materials related to Steam Tunnels and Associated Pits, Targeted for Demolition. Asbestos samples were submitted to a National Voluntary Laboratory Accreditation Program (NVLAP) certified laboratory for analysis. Survey and laboratory results indicate that some of the suspect materials sampled were reported as ACM.

EDI performed a visual inspection of Steam Tunnels of suspect lead painted components. No painted components were identified.

Please feel free to contact me at (312) 345-1400 x136 or by email at pfeeley@envdesigni.com with any comments or questions regarding EDI's investigation and this report.

Sincerely,

Environmental Design International inc.

A handwritten signature in black ink, appearing to read 'Patricia Feeley', is written over a light blue horizontal line.

Patricia Feeley, P.G.
Project Manager

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Executive Summary

Environmental Design International inc. (EDI) was retained by the Department of the Navy, Naval Facilities Engineering Command (NAVFAC) Midwest, under Navy Contract Number N40083-07-A-0016, BPA Call Number 0030, to perform a limited environmental survey of the Steam Lines and Associated Pits Targeted for Demolition located on the Naval Station Great Lakes in Great Lakes, Illinois. The environmental survey included inspection and sampling for the presence of asbestos, lead containing paint, lead-based paint, and other potential hazardous materials observed. The base-wide steam line distribution system targeted for demolition included aboveground steam lines, underground steam lines, and associated Buildings. Portions of steam lines were accessed through steam pits open to the surface covered by a grate or manway. The underground steam lines were divided into three categories: Installed post-1991, Steam Chases, and Steam Tunnels. This report addresses the limited environmental survey of underground Steam Tunnels and Associated Pits.

Every attempt was made to thoroughly evaluate and assess the presence and condition of suspect asbestos containing materials (ACM), lead-based paint (LBP), and other hazardous materials. Any suspect ACM, LBP, or other environmental hazards identified during renovation that are not specifically listed in this report should be thoroughly evaluated, sampled, and analyzed prior to disturbance, in accordance with applicable regulatory standards.

EDI performed a visual inspection of Steam Tunnels and Associated Pits, which included thermal system insulation (TSI) and related materials. The typical configuration observed along the Steam Tunnels was 4 pipes. Pipes were color coded for identification (typically an 18 inch blue pipe and 12 inch orange pipe, 10 inch yellow pipe and 10 inch white pipe, sizes all estimated). Suspect materials along the pipe line included: elbows, expansion joints, and paper wrap; non-suspect materials included foam and fiberglass insulation. Representative samples of homogeneous suspect ACM were collected from the pipe lines. The samples were submitted to a National Voluntary Laboratory Accreditation Program (NVLAP) accredited laboratory for bulk analysis. Based on laboratory bulk sample analysis results, the paper wrap over fiberglass insulation (HA1, HA3, & HA5) on blue, orange, and yellow line main runs was non-detect for asbestos. White line insulation was observed to be foam. The following materials were reported as ACM:

- TSI Elbows and fittings (HA2, HA4, HA6, HA7, HA8, HA9, and HA10) on 18 inch blue pipe, 12 inch orange pipe, 10 inch yellow pipe. HA7, HA8, and HA9 are one HA, the elbows across pipe lines were similar in construction and considered one HA.
- Valve TSI (HA10) orange line (patch).

Any ACM that will be disturbed during planned renovation must be abated using licensed abatement contractors in accordance with federal, state and local regulations.

EDI performed a visual inspection of the Steam Tunnels and Associated Pits for suspect lead painted components. No painted components were identified.

EDI performed a visual survey of the Steam Tunnels for potential hazardous materials. Suspect hazardous materials should be removed, handled, and disposed of or stored in accordance with applicable federal, state, and local regulations. No hazardous materials were identified along the Steam Tunnels.

1.0 Introduction

Environmental Design International inc. (EDI) was retained by the Department of the Navy, Naval Facilities Engineering Command (NAVFAC) Midwest, under Navy Contract Number N40083-07-A-0016, BPA Call Number 0030, to perform a limited environmental survey of the Steam Lines Targeted for Demolition located on the Naval Station Great Lakes in Great Lakes, Illinois. The environmental survey included inspection and sampling for the presence of asbestos, lead-containing paint, lead-based paint, and other potential hazardous materials observed. The underground steam lines were divided into three categories: Installed post-1991, Steam Chases, and Steam Tunnels. This report addresses the limited environmental survey of the Steam Tunnels and Associated Pits.

The field survey was performed by Mr. Jason Janssen, Mr. Jose Aguilera, Mr. John Wellman, Mr. John Feely and Ms. Alpana Chaudhary on June 6-10 and 13-15, 2011. The asbestos and lead inspections were conducted by Mr. Aguilera and Mr. Feely. Additional personnel supported the survey. EDI field personnel returned to the Steam Tunnels to collect additional samples and photographic documentation of the homogenous sampling areas (HAs) on September 6, 2011. Licenses and certifications for EDI staff are provided in Appendix D.

1.1 Scope of Work and Project Background

The purpose of this project (based on the statement of work provided by NAVFAC) is to conduct an Environmental Survey for base-wide Steam Lines (above ground steam lines, direct bury steam lines, steam tunnel and contents, steam pits and contents, associated buildings (1709, 11B, 11G, 11H, 135, 811, 811A, 6501, 6502, 6503, 6509), and utility trestles S4 and S3 scheduled for demolition. Areas (steam pipes) targeted for demolition were inspected; and samples were collected to determine, the presence of asbestos, lead containing paint, and/or lead-based paint (LBP), and to identify other hazardous materials.

The Work Plan (WP) was completed and approved by NAVFAC in May 2011 and defined the scope of activities, sampling and analysis to be conducted, and the standard health and safety procedures for completing the Environmental Survey. The quality assurance project plan (QAPP) for the Basewide Steam Lines targeted for demolition was also included in the Work Plan. The Environmental Survey focused on survey and sampling for asbestos containing materials (ACM) and lead in paint. Steam heat is distributed to many of the buildings on the Naval Station through underground steam pipes that can be accessed through numbered steam pits. EDI conducted the initial Steam Line survey on June 6-15 and provided preliminary draft reports of the asbestos and lead-paint chip findings. Navy requested that EDI re-format the findings and sample results to better represent the HSAs per Steam Line grouping: Buildings, Aboveground Steam Lines, Steam Lines Installed Post-1991 (all underground), Steam Chases (underground), and Steam tunnels (underground). The report focuses on the findings from the visual and representative sampling of the Steam Tunnels. EDI was provided a drawing package

titled “FY-12 MILCON# 1111695 Naval Station Great Lakes P-816 Steam Decentralization B-11” to review during the revisit on September 6, 2011.

1.2 Building and Steam Line Descriptions

EDI was provided a steam and condensate distribution drawing (PWC DWG No. STM-10-9601) with steam tunnel and chase piping highlighted. Steam pipes linked by pits and tunnels (identified in pink and purple on the drawing provided) were inspected on site.

This report addresses the limited environmental survey of the Steam Tunnels, identifying the representative piping TSI and associated HSAs. Each tunnel steam line pipe was identified by a unique color code to assist with line identification and spray paint was utilized to color code the steam lines as the inspectors assessed the materials. Colors utilized during the Steam Tunnel survey include: blue, orange, yellow, and white. The typical piping configuration observed along the Steam Tunnels was four parallel pipes, with the typical piping observed and color codes utilized listed below (all sizes estimated):

- Blue - 18” pipe
- Orange - 12” pipe
- Yellow - 10” pipe
- White - 10” pipe (no suspect materials observed, not sampled)

The materials of each color coded line were observed to be similar in color, texture, and general appearance across their entire lengths. Foam insulation was noted on the white line along its entire observed length, while fiberglass was noted along the pipe runs of the blue, orange, and yellow lines. Piping was typically insulated; however bare piping was also observed. Suspect materials along each pipe line included elbows, expansion joints, and paper wrap. Non-suspect materials along the pipe lines included foam and fiberglass insulation. These materials were found to be similar along the pipe lines.

1.3 Safety

The steam lines are active and located below ground. Steam lines carry hot water steam and cold water condensate return. Underground steam lines were accessed through the steam pits and determined to be a permit-required confined space. Each pit was assessed for safe entry; some pits were determined unsafe for entry due to high temperatures (over 120 degrees F) or flooding or other limiting restrictions. The HASP was provided in the WP dated May 2011 (Appendix C).

Standard work consisted of the visual survey and sampling activities and was performed in a modified level D. Level C PPE was used for asbestos sampling, inclusive of a half or full face mask air purifying respirator with HEPA filters. Tyvek suits were used for sampling activities. Confined space procedures were followed in the survey and sampling activities. See the WP for further details.

2.0 Asbestos Survey

2.1 Asbestos Survey Methodology

EDI licensed asbestos inspectors performed a visual inspection to identify suspect ACM on accessible areas of the Steam Tunnels and Associated Pits that might be affected by the Targeted Demolition of the Steam Lines. The ACM survey was performed in accordance with the United States Environmental Protection Agency (USEPA) *Asbestos in Buildings: Simplified Sampling Scheme for Friable Surfacing Materials* (USEPA 560/5085-030a, October 1985) and in accordance with AHERA the Request for services RFQ 1907671 and addendums. The ACM survey included the following activities:

- Visual inspection of accessible areas of the Steam Tunnels and Associated Pits
- Collection of bulk samples of identified suspect ACM per homogeneous material in accessible areas of the Steam Lines and Associated Pits;
- AIHA and NVLAP accredited laboratory analysis of suspect ACM bulk samples by polarized light microscopy (PLM) to first positive result per homogeneous material; and,
- Preparation of a final report that includes sample locations of representative ACM and the laboratory's analytical report.

HSAs are areas containing materials that are similar in color, texture, and general appearance, and which appear to have been uniformly installed during the same time period. The homogenous areas (HA) identified for Steam Tunnels and Associated Pits included the following suspect materials:

- TSI Fittings, Elbows, and Valves on 18 inch pipes, 12 inch pipe, 10 inch pipes
- Paper wrap over fiberglass insulation;

The HAs associated with Steam Tunnels and Associated Pits included the following non-suspect materials:

- Foam insulation
- Fiberglass insulation;

Bulk samples of suspect ACM were collected using wet sampling methods with a coring device or a sample cutter, as appropriate, to collect a cross-section of the suspect ACM. Sample collection tools were decontaminated after each sample to avoid cross contamination. Bulk ACM samples were placed into clean unused sample containers marked with a unique sample identification number. For each sample, the identification number, brief material description, and location of suspect ACM were recorded on a sample log sheet. Chain-of-Custody (COC) procedures were followed for the ACM survey. These procedures provide a written tracking mechanism that lists the person responsible for the sample from collection to delivery to the laboratory. Sample identification numbers, sample locations, and material descriptions were recorded on the chain-of-custody forms.

All bulk samples were analyzed by International Asbestos Testing Laboratory (IATL), Inc. in Mt. Laurel, New Jersey, a NVLAP accredited asbestos laboratory. IATL laboratory certifications are contained in Appendix C. Samples were analyzed by polarized light microscopy (PLM) using USEPA Method 600/R-93/116 (letter from laboratory attached in Appendix C with laboratory certification). PLM is a USEPA-approved method that utilizes a light microscope equipped with polarized filters. While the lab reports do not directly state “PLM,” the laboratory report and letter indicates the use of USEPA Method 600/R-93/116 which is defined as PLM method.

2.2 Asbestos Results

The Asbestos Sample Summary Table (Table 1) is presented in Appendix A with the September 6, 2011 Photo Logs of the Steam Tunnels and Associated Pits. Samples of color-coded steam lines are identified by pit ID, and are indicative of long run pipeline TSI within the steam tunnels. Drawings of suspect ACM sample locations are presented in Appendix B. Site Piping Plan drawing MD-304 shows the Steam Tunnels and associated pits sampled, drawing MD-201 shows the approximate location of samples collected in pits 4 and 6, drawing MD-215 shows the approximate location of samples collected in pit 143, and drawing MD-216 shows the approximate location of samples collected in pits 155 and 156. Drawing MD-202 depicting pit 13 was not included in the drawing package titled “FY-12 MILCON# 1111695 Naval Station Great Lakes P-816 Steam Decentralization B-11” received by EDI. Asbestos laboratory results and certifications are presented in Appendix C. Worker licenses and certifications are attached in Appendix D.

The following materials were reported non-detect for asbestos:

- Black paper wrap over fiberglass (HA1, HA3, & HA5) on blue, orange, and yellow lines.

The laboratory report states, under comments: “(PC) Indicates Stratified Point Count Method performed. Method not performed unless stated. Quantification at <0.25% by volume is possible with this method.

The following materials were reported as ACM:

- TSI elbows and fittings (HA2, HA4, HA6, HA7, HA8, HA9, and HA10) on 18 inch blue pipe, 12 inch orange pipe, 10 inch yellow pipe. HA7, HA8, and HA9 are one HA, the elbows across pipe lines were similar in construction and considered one HA.
- Valve TSI (HA10) orange line (patch).

3.0 Paint Survey

3.1 Paint Survey Methodology

EDI conducted a visual inspection to identify representative painted components on the Steam Tunnels and Associated Pits.

3.2 Paint Results

No painted components were identified along the Steam Tunnels or within steam pits. No tables or photographs were applicable.

4.0 Hazardous Materials Survey

4.1 Hazardous Materials Survey Methodology

EDI performed a visual survey of the pits associated with Steam Tunnels for potential hazardous materials.

4.2 Hazardous Materials Results

There were no hazardous materials observed. Therefore, no tables or photographs were applicable. If found, suspect hazardous materials should be removed, handled, and disposed of or stored in accordance with applicable federal, state, and local regulations.

5.0 Findings and Recommendations

5.1 Asbestos Survey

Based on the visual inspection and bulk sample analysis results; valve TSI as well as the elbows and fittings of the blue, orange, and yellow pipe lines, were reported as ACM. All fittings and elbows within pits identified on the Asbestos Confirmed and Assumed Locations Figure should be considered ACM for abatement purposes. Any ACM that will be disturbed during planned renovation/ demolition must be abated using licensed abatement contractors in accordance with federal, state and local regulations.

5.2 Paint Survey

No painted components were identified along the Steam Tunnels.

5.3 Hazardous Materials Survey

No suspect hazardous materials were identified in the environmental survey of Steam Tunnels

6.0 Limitations

This report is based solely on the scope of work provided and the assumptions identified in this limited survey. Any new information that becomes available concerning the subject site should be provided to EDI so that our evaluations, conclusions, and recommendations may be revised and modified accordingly. All materials tested are assumed homogeneous throughout the proposed renovation areas. EDI staff walked the site area to identify accessible areas to be included in the limited survey. Every attempt was made to thoroughly evaluate and assess the presence and condition of suspect ACM and lead-containing materials. The insulation materials identified on the pipes were classified as being homogenous across pits and lines. EDI did not perform destructive sampling practices and suspect materials may exist within inaccessible areas. Any suspect material identified during renovation/demolition that is not specifically listed or illustrated herein should be thoroughly assessed, sampled, and analyzed prior to disturbance, in accordance with applicable regulatory standards.

The findings and conclusions in this report are not specific certainties; rather they are probabilities based on professional judgment concerning the significance of the data collected. EDI claims to represent only the specific findings documented herein and does not claim knowledge of conditions beyond the scope of the limited survey.

The asbestos and lead survey was conducted in a manner consistent with that level of care and skill ordinarily exercised by members of the environmental profession under similar conditions. No other warranty or guarantee, express or implied, is included or intended in this Report or otherwise.

7.0 Definitions

The following definitions are intended to provide the reader with a better understanding of the terminology used in this report.

Asbestos

The general name given to a number of naturally occurring hydrated silicate minerals that possess a unique crystalline structure, are incombustible in air, and are separable into fibers. Asbestos includes chrysotile, crocidolite, amosite, anthophyllite, tremolite and actinolite.

Asbestos-Containing Material (ACM)

Asbestos-containing material (ACM) is material that is found to contain greater than one percent asbestos content as determined by polarized light microscopy (PLM) analysis (USEPA 560/5085-030a, October 1985).

Accessible Areas

An accessible area of the building is any area that the survey team is permitted to inspect and that can be inspected without the disassembly of complicated mechanical or rigid structural components of the building. Examples of accessible areas of the building are interior floors, walls, ceilings, areas above suspended ceilings; return air shafts (normally), mechanical piping exteriors, and equipment exteriors, etc.

Damaged material

A “damaged” material contains a few water stains or less than one-tenth of insulation with missing jackets and/or crushed insulation or water stains, gouges, punctures, or mars on surface up to one-tenth of the insulation if the damage is evenly distributed or up to one-quarter if the damage is localized.

Inaccessible Areas

An inaccessible area is any area where inspection access is not permitted or requires a considerable amount of mechanical or structural disassembly to inspect. Inaccessible areas normally only investigated prior to renovation or demolition activities. Examples of inaccessible areas are pipe chases behind solid walls, mechanically encased insulation, crawlspaces, or unsafe areas.

Friable Material

A material, that when dry, may be crumbled, pulverized, or reduced to powder by hand pressure is a friable material. Examples of friable materials include: pipe insulation, boiler or tank insulation, or sprayed-on fireproofing.

Homogeneous Area

A homogeneous area is defined as a group of materials that is uniform in texture and appearance, was stalled at one time, and is likely to consist of more than one type or formation of material.

Lead-Based Paint (LBP)

Paint or surface coatings that contain lead levels greater than or equal to 1.0 milligram per square centimeter, or more than 0.5% lead by weight.

Non-friable Material

A material, that when dry, cannot be crumbled, pulverized, or reduced to powder by hand pressure. Non-friable materials may become friable through damage or deterioration. Examples of non-friable materials include: intact floor tile, transite building panels, or well maintained roofing materials.

Significantly Damaged Material

A “significantly damaged” material contains missing jackets on at least one-tenth of the piping or equipment and/or is crushed, heavily gouged, or punctured insulation on at least one-tenth of pipe runs/rises, boilers, tanks, ducts, etc., if the damage is evenly distributed or one-quarter of the damage is localized.

Appendices

Appendix A: Asbestos Summary Tables and Photographs

Table 1. Asbestos Sample Summary Table

Tunnels Steam Lines
 Naval Station Great Lakes
 Great Lakes, Illinois

Location	Homogenous Area Description	Sampled Material Description	Sample ID	Results (% and type)	Test Method	Friability	Approx. Quantity Square feet (s.f) Linear feet (l.f.)	Condition
Pit 4	Blue Pipe	Black Paper Wrap over Fiber Glass	T-HA-1-01	ND	PLM	NF	3,800 L.F.	Good
Pit 4	Blue Pipe	Insulation TSI	T-HA-1-01 Layer 2	ND	PLM	NF		Good
Pit 13	Blue Pipe	Black Paper Wrap over Fiber Glass	T-HA-1-02	ND	PLM	F		Poor
Pit 143	Blue Pipe	Black Paper Wrap over Fiber Glass	T-HA-1-03	ND	PLM	F		Fair
Pit 4	Blue Pipe Fitting TSI	Insulation TSI	T-HA-2-04	15% Chrysotile	PLM	F	140 Fittings and Elbows	Fair
Pit 13	Blue Pipe Fitting TSI	Insulation TSI	T-HA-2-05	10% Chrysotile	PLM	F		Fair
Pit 143	Blue Pipe Fitting TSI	Insulation TSI	T-HA-2-06	20% Chrysotile	PLM	F		Fair
Pit 6	Blue Line Elbow	Insulation TSI	T-HA-7-19/SAME AS T-HA-2	4.8% Chrysotile	PLM	F		Good
Pit 4	Orange Line	Black Paper Wrap over Fiber Glass	T-HA-3-07	ND	PLM	F	3,800 L.F.	Good

<u>Results</u>	<u>Type</u>	<u>Test Method</u>	<u>Friability</u>	<u>Condition</u>
ND: Not Detected	AC: Actinolite AM: Amosite AN: anthophyllite CH: Chrysotile CR: Crocidilite TR: Tremolite	PLM: Polarized Light Microscopy PC: Point Count Method TEM: Transmission Electron Microscopy	F: Friable NF: Non- Friable Category I NF-II: Non-Friable Category II	Good: Little to no damage Damaged: Less than 10% damage of total surface area, or less than 25% damage in a localized area Significantly Damaged: Greater than 10% damage of total surface area, or greater than 25% damage in a localized area

Table 1. Asbestos Sample Summary Table

Tunnels Steam Lines
 Naval Station Great Lakes
 Great Lakes, Illinois

Location	Homogenous Area Description	Sampled Material Description	Sample ID	Results (% and type)	Test Method	Friability	Approx. Quantity Square feet (s.f) Linear feet (l.f.)	Condition
Pit 4	Orange Line	Insulation TSI	T-HA-3-07 Layer 2	ND	PLM	F		Good
Pit 13	Orange Line	Black Paper Wrap over Fiber Glass	T-HA-3-08	ND	PLM	F		Good
Pit 143	Orange Line	Black Paper Wrap over Fiber Glass	T-HA-3-09	ND	PLM	F		Fair
Pit 4	Orange Line Fitting	Insulation TSI	T-HA-4-10	12% Chrysotile	PLM	F	140 Fittings and Elbows	Good
Pit 13	Orange Line Fitting	Insulation TSI	T-HA-4-11	10% Chrysotile	PLM	F		Good
Pit 143	Orange Line Fitting	Insulation TSI	T-HA-4-12	25% Chrysotile	PLM	F		Fair
Pit 6	Orange Line Elbow	Insulation TSI	T-HA-8-22/SAME AS T-HA-4	10% Chrysotile	PLM	F		Good
Pit 4	Yellow Line	Black Paper Wrap over Fiber Glass	T-HA-5-13	ND	PLM	F	3,800 L.F.	Good
Pit 13	Yellow Line	Black Paper Wrap over Fiber Glass	T-HA-5-14	ND	PLM	F		Good
Results	Type	Test Method			Friability		Condition	
ND: Not Detected	AC: Actinolite AM: Amosite AN: anthophyllite CH: Chrysotile CR: Crocidilite TR: Tremolite	PLM: Polarized Light Microscopy PC: Point Count Method TEM: Transmission Electron Microscopy			F: Friable NF: Non- Friable Category I NF-II: Non-Friable Category II		Good: Little to no damage Damaged: Less than 10% damage of total surface area, or less than 25% damage in a localized area Significantly Damaged: Greater than 10% damage of total surface area, or greater than 25% damage in a localized area	

Table 1. Asbestos Sample Summary Table

Tunnels Steam Lines
 Naval Station Great Lakes
 Great Lakes, Illinois

Location	Homogenous Area Description	Sampled Material Description	Sample ID	Results (% and type)	Test Method	Friability	Approx. Quantity Square feet (s.f) Linear feet (l.f.)	Condition
Pit 143	Yellow Line	Black Paper Wrap over Fiber Glass	T-HA-5-15	ND	PLM	F		Fair
Pit 4	Yellow Line Fitting	Insulation TSI	T-HA-6-16	15% Chrysotile	PLM	F	140 Fittings and Elbows	Good
Pit 13	Yellow Line Fitting	Insulation TSI	T-HA-6-17	10% Chrysotile	PLM	F		Good
Pit 156	Yellow Line Fitting	Insulation TSI	T-HA-6-18	70% Chrysotile	PLM	F		Fair
Pit 6	Yellow Line Elbow	Insulation TSI	T-HA-9-25/SAME AS T-HA-6	20% Chrysotile	PLM	F		Good
Pit 155	Orange Line Valve	Insulation TSI (patch)	T-HA-10-28	20% Chrysotile	PLM	F	15 valves (patch)	Good

<u>Results</u>	<u>Type</u>	<u>Test Method</u>	<u>Friability</u>	<u>Condition</u>
ND: Not Detected	AC: Actinolite AM: Amosite AN: anthophyllite CH: Chrysotile CR: Crocidilite TR: Tremolite	PLM: Polarized Light Microscopy PC: Point Count Method TEM: Transmission Electron Microscopy	F: Friable NF: Non- Friable Category I NF-II: Non-Friable Category II	Good: Little to no damage Damaged: Less than 10% damage of total surface area, or less than 25% damage in a localized area Significantly Damaged: Greater than 10% damage of total surface area, or greater than 25% damage in a localized area

Naval Station Great Lakes
 Photo Log of Tunnel Steam Lines
 September 8, 2011
 Photographed by Jose Aguilera & Jason Janssen



View of entrance to tunnel through manhole identified as pit 4



THA2: Blue line, fitting, TSI



THA6: Yellow line, fitting, TSI



View of blue, orange, yellow, and white lines (top to bottom) in tunnel at pit 4



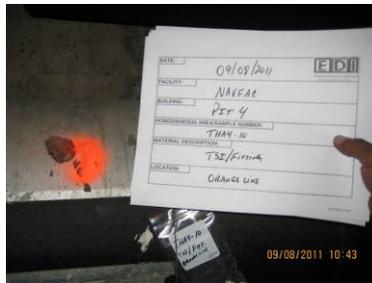
THA3: Orange line, black wrap on fiberglass run



White line, no suspect materials



THA1: Blue line, black wrap on fiberglass run



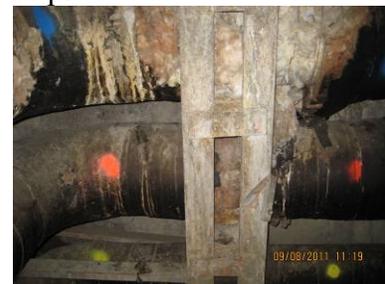
THA4: Orange line, fitting, TSI



View of entrance to tunnel through manhole identified as pit 6



THA5: Yellow line, black wrap on fiberglass run



View of blue, orange, and yellow line elbows in tunnel at pit 6

Naval Station Great Lakes
 Photo Log of Tunnel Steam Lines
 September 8, 2011
 Photographed by Jose Aguilera & Jason Janssen



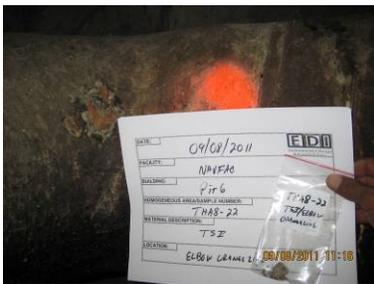
THA7: Blue line, elbow, TSI



View of entrance to tunnel through manhole identified as pit 13



View of white line behind and under orange line in tunnel at pit 143



THA8: Orange line, elbow, TSI



View of blue, orange, and yellow lines (top to bottom) in tunnel at pit 13



View of entrance to tunnel through manhole identified as pit 155



THA9: Yellow line, elbow, TSI



View of entrance to tunnel through manhole identified as pit 143



View of blue, orange, white, and yellow lines (top to bottom) in tunnel at pit 155



View looking south in tunnel at pit 6

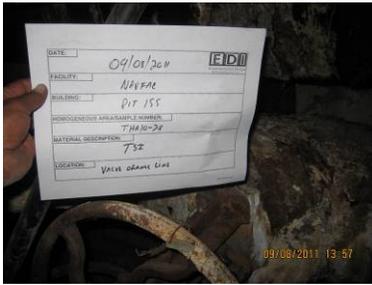


View of blue, orange, and cut yellow line(s) (top to bottom) in tunnel at pit 143



View looking west in tunnel at pit 155, note insulated value on orange line

Naval Station Great Lakes
Photo Log of Tunnel Steam Lines
September 8, 2011
Photographed by Jose Aguilera & Jason Janssen



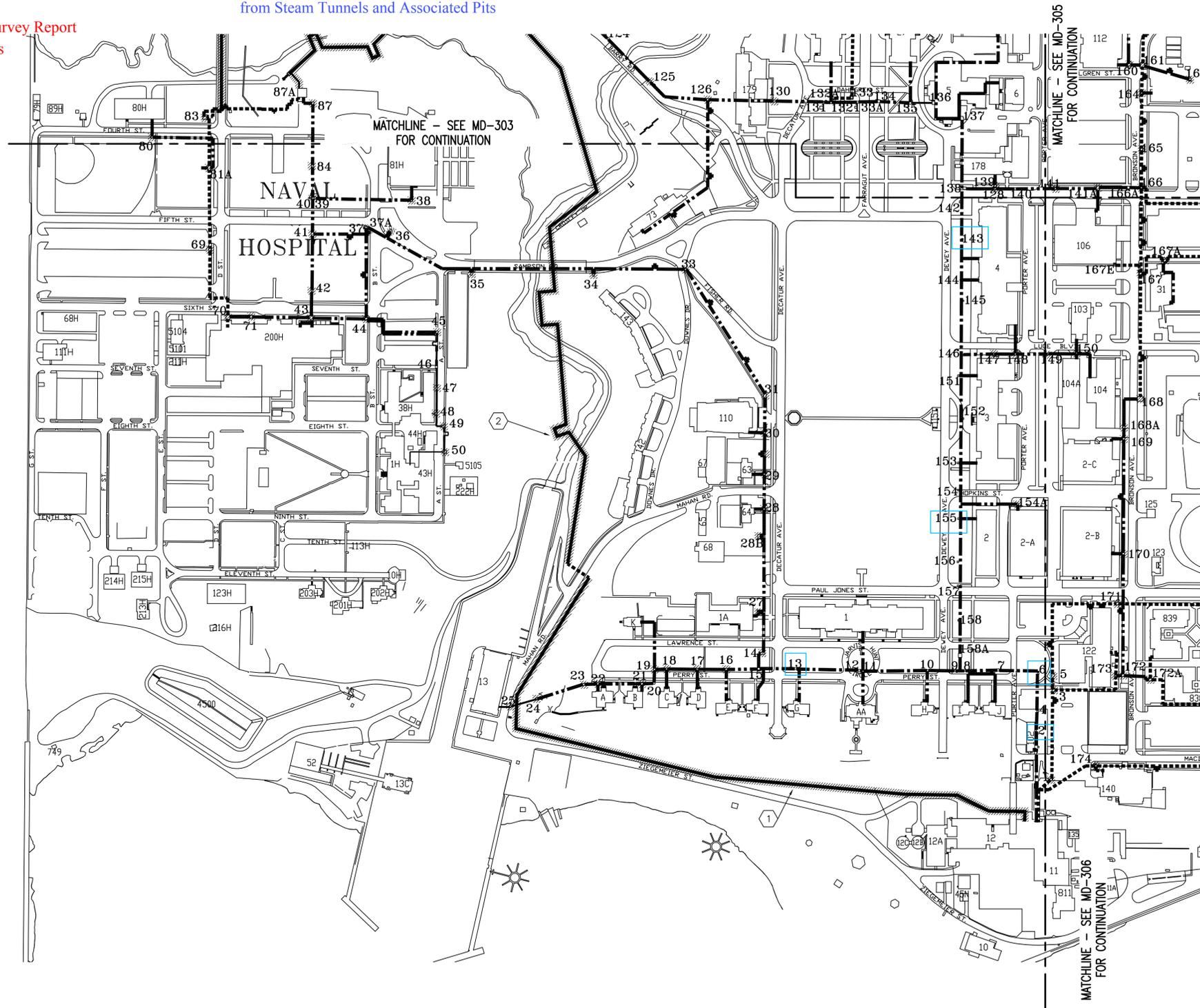
THA10: Valve, TSI



Appendix B: Asbestos Sample Location Drawings

Report: Limited Environmental Survey Report
 Steam Tunnels and Associated Pits
 February 2012

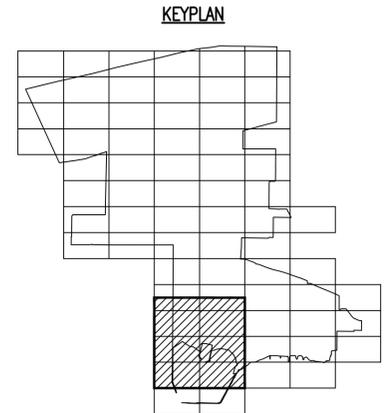
Drawing 1: EDI General Suspect ACM sample locations
 from Steam Tunnels and Associated Pits



Samples collected at these pits for ACM.
 Results indicate asbestos containing materials in Tunnels

- LEGEND**
- INDICATES STEAM AND CONDENSATE PIPING ABOVE GROUND
 - INDICATES STEAM AND CONDENSATE PIPING IN PIPE CHASE
 - INDICATES STEAM AND CONDENSATE PIPING DIRECT BURIED
 - INDICATES STEAM AND CONDENSATE PIPING IN TUNNEL
 - INDICATES DEMOLITION
 - INDICATES STEAM PIT TO BE DEMOLISHED

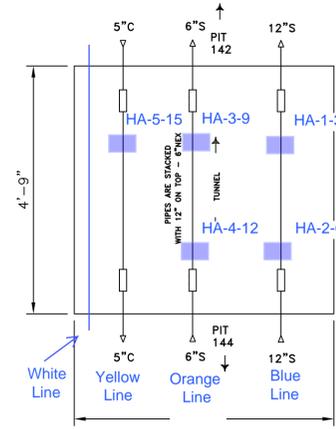
- GENERAL NOTES:**
1. DIRECT BURIED PIPING, PIPING IN CHASES AND PIPING IN TUNNEL TO BE ABANDONED IN PLACE.
 2. SITE DISTRIBUTION DEMOLITION DRAWINGS UTILIZE NAVY PUBLIC WORKS DRAWING NUMBERS GL-10-9601 AND GL-10-9602 AS REFERENCE FOR THE SITE DISTRIBUTION SYSTEM.
- KEYED NOTES:**
- 1 ABOVE GRADE STEAM AND CONDENSATE PIPING TO BE DEMOLISHED FROM B-11 TO WHERE STEAM PIPING IS ROUTED UNDER MAHAN ROAD.
 - 2 ABOVE GRADE STEAM AND CONDENSATE PIPING TO BE DEMOLISHED BETWEEN STEAM 103 PIT AND TO WHERE STEAM PIPING IS ROUTED UNDER MAHAN ROAD.



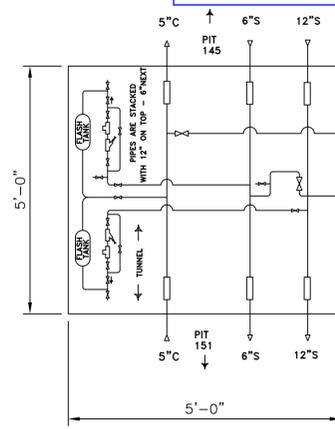
<p>APPROVED</p> <p>FOR COMMANDER NAVFAC</p> <p>ACTIVITY</p> <p>SATISFACTORY TO DATE</p> <p>DES XXX DRW XXX CHK XXX</p> <p><<PM/DM>></p> <p>BRANCH MANAGER</p> <p>CHIEF ENG/ARCH XXX</p> <p><<DD>></p> <p>DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND PUBLIC WORKS DEPARTMENT</p> <p>NAVAL STATION GREAT LAKES GREAT LAKES, IL</p> <p>P-816 STEAM DECENTRALIZATION B-11</p> <p>SITE PIPING PLAN</p> <p>SCALE: AS NOTED</p> <p>EPROJCT NO.: #####</p> <p>CONSTR. CONTR. NO. #####</p> <p>NAVFAC DRAWING NO. #####</p> <p>SHEET ## OF ##</p> <p>MD-304</p> <p><small>DRAWING REVISION: 10 MARCH 2009</small></p>	<p>DATE</p> <p>APPR</p> <p>35% DESIGN SUBMITTAL</p> <p>SMN DESCRIPTION</p> <p>PRELIMINARY NOT FOR CONSTRUCTION</p> <p>SEAL</p> <p>A/E INFO</p>
--	---

FILE NAME: C:\pwworking\jomo\0867328\MD-304.dwg LAYOUT NAME: Plot PLOTTED: Wednesday, June 15, 2011 - 11:28am USER: lemke

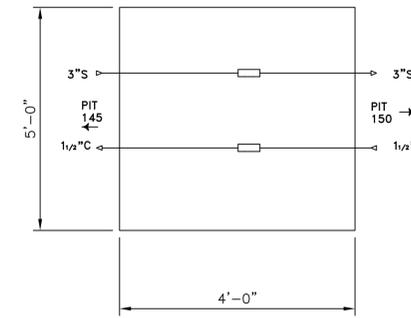
**Drawing 3: EDI Suspect ACM Sampling Locations
 Steam Tunnels
 Pit 143**



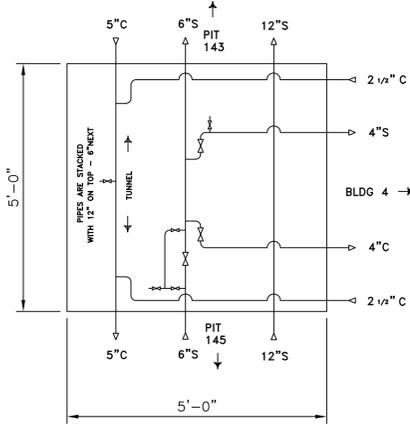
PIT #143
 NOT TO SCALE



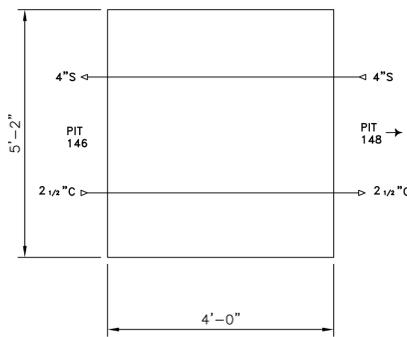
PIT #146
 NOT TO SCALE



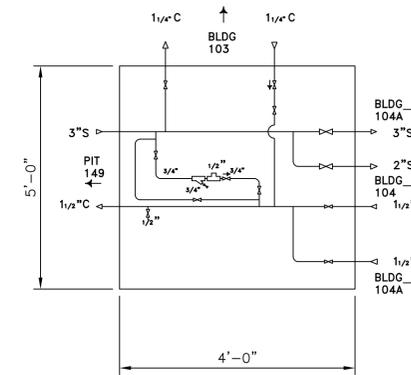
PIT #149
 NOT TO SCALE



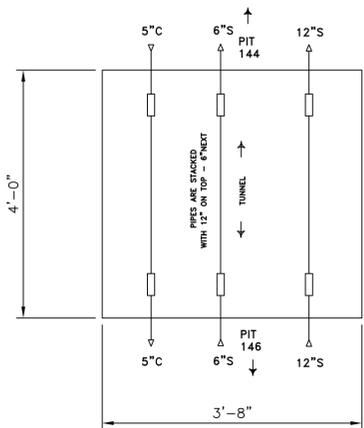
PIT #144
 NOT TO SCALE



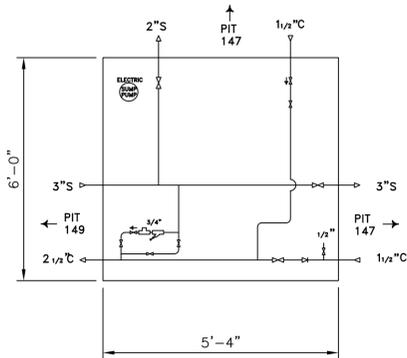
PIT #147
 NOT TO SCALE



PIT #150
 NOT TO SCALE



PIT #145
 NOT TO SCALE

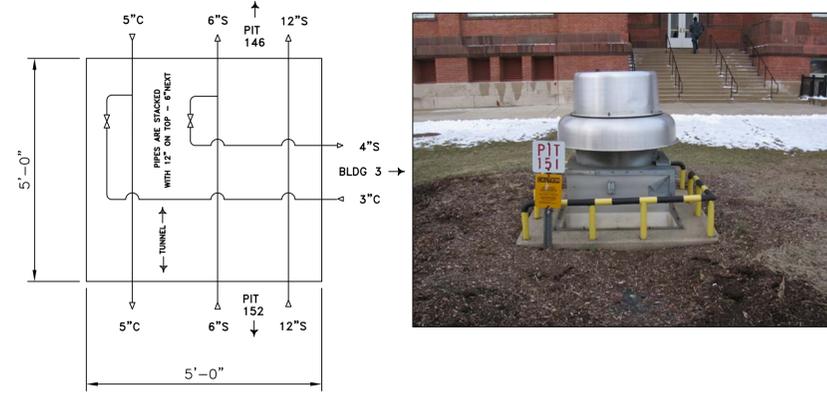


PIT #148
 NOT TO SCALE

APPROVED	DATE	APP'R
DESCRIPTION	DATE	APP'R
35% DESIGN SUBMITTAL		
PRELIMINARY NOT FOR CONSTRUCTION		
APPROVED: _____ FOR COMMANDER NAVFAC: _____ ACTIVITY: _____ SATISFACTORY TO: _____ DATE: _____ DES: _____ DRW: _____ CHK: _____ BRANCH MANAGER: _____ CHIEF ENG/ARCH: _____ XXX <<OOO>>		
DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND PUBLIC WORKS DEPARTMENT NAVAL STATION GREAT LAKES GREAT LAKES, IL P-816 STEAM DECENTRALIZATION B-11 STEAM PIT DEMOLITION		
SCALE: AS NOTED PROJECT NO.: ##### CONSTR. CONTR. NO.: ##### NAVFAC DRAWING NO.: ##### SHEET # OF ##		
MD-215 DRAWFORM REVISION: 10 MARCH 2009		

FILE NAME: C:\paworking\csmo\d0667328\MD-215.dwg LAYOUT NAME: Pit_PLOTTED: Wednesday, June 15, 2011 - 11:17am USER: itemko

Drawing 4: EDI Suspect ACM Sampling Locations
 Steam Tunnels
 Pit 155 and 156

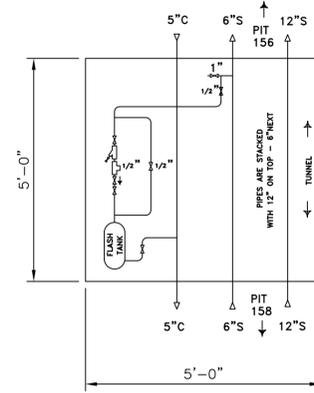


PIT #151
 NOT TO SCALE

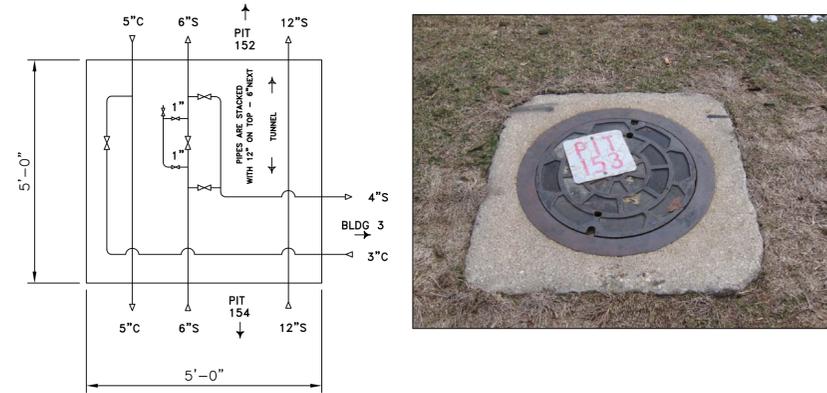
DRAWING OF PIT #154A NOT ON FILE



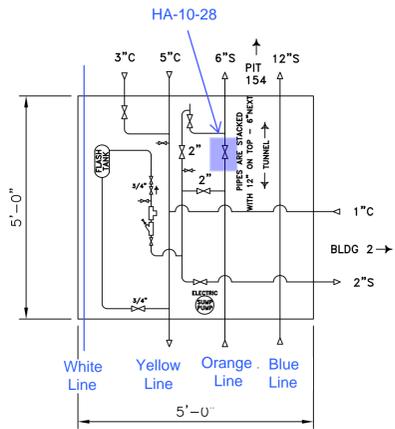
PIT #154A
 NOT TO SCALE



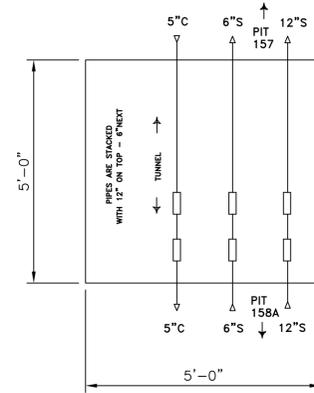
PIT #157
 NOT TO SCALE



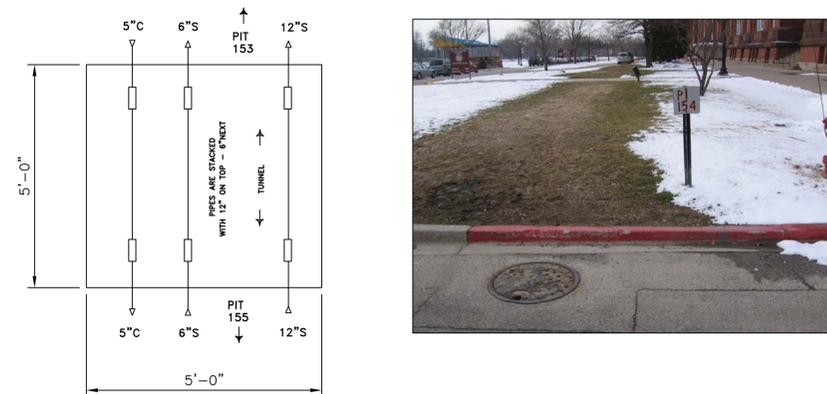
PIT #153
 NOT TO SCALE



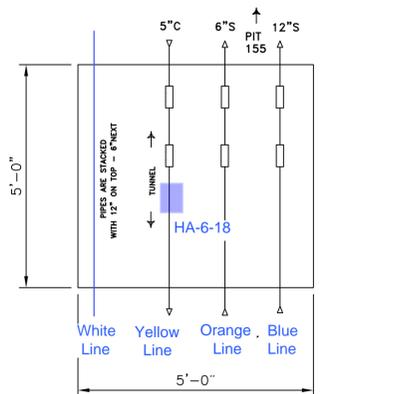
PIT #155
 NOT TO SCALE



PIT #158
 NOT TO SCALE



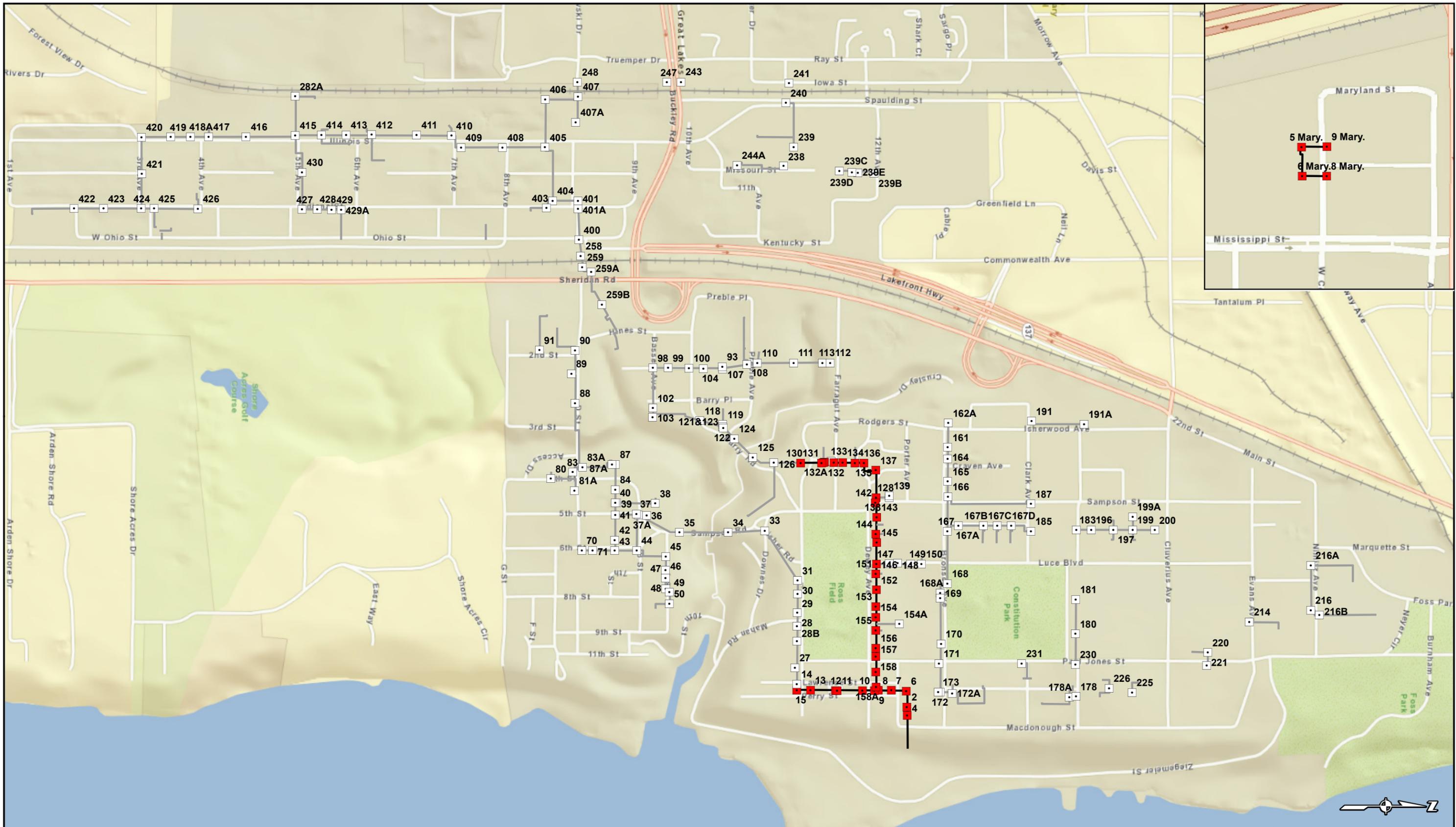
PIT #154
 NOT TO SCALE



PIT #156
 NOT TO SCALE

APPROVED	DATE	APP'R
35% DESIGN SUBMITTAL	DESCRIPTION	SPW
<p>PRELIMINARY NOT FOR CONSTRUCTION</p>		
APPROVED FOR COMMANDER NAVFAC ACTIVITY SATISFACTORY TO DATE DES: _____ DRW: _____ CHK: _____ BRANCH MANAGER CHIEF ENG/ARCH: XXX DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND NAVAL FACILITIES ENGINEERING COMMAND - MIDWEST PUBLIC WORKS DEPARTMENT NAVAL STATION GREAT LAKES GREAT LAKES, IL P-816 STEAM DECENTRALIZATION B-11 STEAM PIT DEMOLITION		
SCALE: AS NOTED PROJECT NO.: ##### CONSTR. CONTR. NO.: ##### NAVFAC DRAWING NO.: ##### SHEET # OF ##		
MD-216 DRAWFORM REVISION: 10 MARCH 2009		

FILE NAME: C:\paworking\csmo\d0867328\MD-216.dwg LAYOUT NAME: Pit_PLOTTED: Wednesday, June 15, 2011 - 11:17am USER: itemke



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 Civil, Survey, Environmental and Construction Inspection Services
 33 W. MONROE STREET, SUITE 1825, CHICAGO, IL 60603
 Ph. (312) 345-1400 Fax (312) 345-0529
 www.envdesigni.com
 Excellence, Dedication, Innovation

Legend

- Steam Lines with No ACM Present or Suspected
- Steam Lines with ACM Present or Suspected
- No ACM Present or Suspected
- ACM Present or Suspected

Asbestos
 Confirmed and Assumed Locations
 Figure

PROJ. No: 1602.029
DATE: 01/17/2012
DRAWN BY: JRJ
APPROVED BY: PF

Appendix C: Asbestos Laboratory Results and Certifications



9000 Commerce Parkway, Ste B
 Mount Laurel, NJ 08054
 Toll Free 877-428-4285
 Local: 856-231-9449
 Fax: 856-231-9818

CERTIFICATE OF ANALYSIS

Client: Environ. Design International
 33 W Monroe, Suite 1825
 Chicago IL 60603

Report Date: 9/19/2011
Report No: 252209
Project: Naval Station Great Lakes
Project No.: 1602.029

BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 4427490	Description / Location: Black Pipe Wrap			
Client No.: THA1-01	Over Fiberglass Blue Pipe Pit 4			
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
None Detected	None Detected	60	Cellulose	40

Lab No.: 4427490	Description / Location: Yellow Pipe Insulation	Layer No.: 2		
Client No.: THA1-01	Over Fiberglass Blue Pipe Pit 4			
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
None Detected	None Detected	100	Mineral Wool	None Detected

Lab No.: 4427491	Description / Location: Black Pipe Wrap			
Client No.: THA1-02	Over Fiberglass Blue Pipe Pit 13			
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
None Detected	None Detected	70	Cellulose	30

Lab No.: 4427492	Description / Location: Black Pipe Wrap			
Client No.: THA1-03	Over Fiberglass Blue Pipe Pit 143			
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
None Detected	None Detected	60	Cellulose	40

Accreditation

NIST-NVLAP No. 101165-0

NY-DOH No. 11021

AIHA-LAP, LLC No. 100188

*This confidential report relates only to those item(s) tested and does not represent an endorsement by NIST-NVLAP, AIHA or any agency of the U.S. government
 This report shall not be reproduced except in full, without written approval of the laboratory.*

Analytical Method:

EPA 600/R-93/116

Comments:

(PC) Indicates Stratified Point Count Method performed. Method not performed unless stated. Quantification at <0.25% by volume is possible with this method. (PC-Trace) represents this limit of quantitation. (PC-Trace) means that asbestos was detected but is not quantifiable under the Point Counting regimen. Analysis includes all distinct separable layers in accordance with EPA 600 Method. If not reported or otherwise noted, layer is either not present or the client has specifically requested that it not be analyzed. Small asbestos fibers may be missed by PLM due to resolution limitations of the optical microscope. Therefore, negative PLM results cannot be guaranteed. Electron Microscopy can be used as a confirming technique. Regulatory Limit is based upon the sample matrix.

Analysis Performed By: L. Price

Approved By:

Date: 9/19/2011

Frank E. Ehrenfeld, III
 Laboratory Director



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 Toll Free 877-428-4285
 Local: 856-231-9449
 Fax: 856-231-9818

CERTIFICATE OF ANALYSIS

Client: Environ. Design International
 33 W Monroe, Suite 1825
 Chicago IL 60603

Report Date: 9/19/2011
Report No: 252209
Project: Naval Station Great Lakes
Project No.: 1602.029

BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 4427493	Description / Location: White Insulation			
Client No.: THA2-04	TSI Fitting Blue Pipe Pit 4			
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
15	Chrysotile	None Detected	None Detected	85

Lab No.: 4427494	Description / Location: White Insulation			
Client No.: THA2-05	TSI Fitting Blue Pipe Pit 13			
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
10	Chrysotile	None Detected	None Detected	90

Lab No.: 4427495	Description / Location: White/Grey Insulation			
Client No.: THA2-06	TSI Fitting Blue Pipe Pit 143			
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
20	Chrysotile	None Detected	None Detected	80

Accreditation **NIST-NVLAP No. 101165-0** **NY-DOH No. 11021** **AIHA-LAP, LLC No. 100188**

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Analytical Method: EPA 600/R-93/116

Comments: (PC) Indicates Stratified Point Count Method performed. Method not performed unless stated. Quantification at <0.25% by volume is possible with this method. (PC-Trace) represents this limit of quantitation. (PC-Trace) means that asbestos was detected but is not quantifiable under the Point Counting regimen. Analysis includes all distinct separable layers in accordance with EPA 600 Method. If not reported or otherwise noted, layer is either not present or the client has specifically requested that it not be analyzed. Small asbestos fibers may be missed by PLM due to resolution limitations of the optical microscope. Therefore, negative PLM results cannot be guaranteed. Electron Microscopy can be used as a confirming technique. Regulatory Limit is based upon the sample matrix.

Analysis Performed By: L. Price

Date: 9/19/2011



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CERTIFICATE OF ANALYSIS

Client: Environ. Design International
 33 W Monroe, Suite 1825
 Chicago IL 60603

Report Date: 9/19/2011
Report No: 252209
Project: Naval Station Great Lakes
Project No.: 1602.029

BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 4427496	Description / Location: Black Wrap			
Client No.: THA3-07	Over Fiberglass Orange Line Pit 4			
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
None Detected	None Detected	70	Cellulose	30

Lab No.: 4427496	Description / Location: Yellow Insulation	Layer No.: 2		
Client No.: THA3-07	Over Fiberglass Orange Line Pit 4			
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
None Detected	None Detected	100	Mineral Wool	None Detected

Lab No.: 4427497	Description / Location: Black Wrap			
Client No.: THA3-08	Over Fiberglass Orange Line Pit 13			
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
None Detected	None Detected	70	Cellulose	30

Lab No.: 4427498	Description / Location: Black Wrap			
Client No.: THA3-09	Over Fiberglass Orange Line Pit 143			
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
None Detected	None Detected	40	Cellulose	60

Accreditation

NIST-NVLAP No. 101165-0

NY-DOH No. 11021

AIHA-LAP, LLC No. 100188

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Analytical Method:

EPA 600/R-93/116

Comments:

(PC) Indicates Stratified Point Count Method performed. Method not performed unless stated. Quantification at <0.25% by volume is possible with this method. (PC-Trace) represents this limit of quantitation. (PC-Trace) means that asbestos was detected but is not quantifiable under the Point Counting regimen. Analysis includes all distinct separable layers in accordance with EPA 600 Method. If not reported or otherwise noted, layer is either not present or the client has specifically requested that it not be analyzed. Small asbestos fibers may be missed by PLM due to resolution limitations of the optical microscope. Therefore, negative PLM results cannot be guaranteed. Electron Microscopy can be used as a confirming technique. Regulatory Limit is based upon the sample matrix.

Analysis Performed By: L. Price

Date: 9/19/2011



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 Toll Free 877-428-4285
 Local: 856-231-9449
 Fax: 856-231-9818

CERTIFICATE OF ANALYSIS

Client: Environ. Design International
 33 W Monroe, Suite 1825
 Chicago IL 60603

Report Date: 9/19/2011
Report No.: 252209
Project: Naval Station Great Lakes
Project No.: 1602.029

BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 4427499	Description / Location: White Insulation			
Client No.: THA4-10	TSI Fitting Orange Line Pit 4			
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
12	Chrysotile	None Detected	None Detected	88

Lab No.: 4427500	Description / Location: White Insulation			
Client No.: THA4-11	TSI Fitting Orange Line Pit 13			
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
10	Chrysotile	None Detected	None Detected	90

Lab No.: 4427501	Description / Location: White Insulation			
Client No.: THA4-12	TSI Fitting Orange Line Pit 143			
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
25	Chrysotile	None Detected	None Detected	75

Lab No.: 4427502	Description / Location: Black Wrap			
Client No.: THA5-13	Over Fiberglass Yellow Line Pit 4			
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
None Detected	None Detected	50	Cellulose	50

Accreditation **NIST-NVLAP No. 101165-0** **NY-DOH No. 11021** **AIHA-LAP, LLC No. 100188**

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Analytical Method: EPA 600/R-93/116

Comments: (PC) Indicates Stratified Point Count Method performed. Method not performed unless stated. Quantification at <0.25% by volume is possible with this method. (PC-Trace) represents this limit of quantitation. (PC-Trace) means that asbestos was detected but is not quantifiable under the Point Counting regimen. Analysis includes all distinct separable layers in accordance with EPA 600 Method. If not reported or otherwise noted, layer is either not present or the client has specifically requested that it not be analyzed. Small asbestos fibers may be missed by PLM due to resolution limitations of the optical microscope. Therefore, negative PLM results cannot be guaranteed. Electron Microscopy can be used as a confirming technique. Regulatory Limit is based upon the sample matrix.

Analysis Performed By: L. Price

Date: 9/19/2011



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 Fax: 856-231-9818

CERTIFICATE OF ANALYSIS

Client: Environ. Design International
 33 W Monroe, Suite 1825
 Chicago IL 60603

Report Date: 9/19/2011
Report No.: 252209
Project: Naval Station Great Lakes
Project No.: 1602.029

BULK SAMPLE ANALYSIS SUMMARY

Lab No.:	4427503	Description / Location:	Black Wrap	
Client No.:	THA5-14		Over Fiberglass Yellow Line Pit 13	
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
None Detected	None Detected	60	Cellulose	40
		Trace	Fibrous Glass	

Lab No.:	4427504	Description / Location:	Black Wrap	
Client No.:	THA5-15		Over Fiberglass Yellow Line Pit 143	
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
None Detected	None Detected	60	Cellulose	40

Lab No.:	4427505	Description / Location:	White Insulation	
Client No.:	THA6-16		TSI Fitting Yellow Line Pit 4	
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
15	Chrysotile	None Detected	None Detected	85

Lab No.:	4427506	Description / Location:	White Insulation	
Client No.:	THA6-17		TSI Fitting Yellow Line Pit 13	
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
10	Chrysotile	2	Cellulose	88

Accreditation **NIST-NVLAP No. 101165-0** **NY-DOH No. 11021** **AIHA-LAP, LLC No. 100188**

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Analytical Method: EPA 600/R-93/116

Comments: (PC) Indicates Stratified Point Count Method performed. Method not performed unless stated. Quantification at <0.25% by volume is possible with this method. (PC-Trace) represents this limit of quantitation. (PC-Trace) means that asbestos was detected but is not quantifiable under the Point Counting regimen. Analysis includes all distinct separable layers in accordance with EPA 600 Method. If not reported or otherwise noted, layer is either not present or the client has specifically requested that it not be analyzed. Small asbestos fibers may be missed by PLM due to resolution limitations of the optical microscope. Therefore, negative PLM results cannot be guaranteed. Electron Microscopy can be used as a confirming technique. Regulatory Limit is based upon the sample matrix.

Analysis Performed By: L. Price

Date: 9/19/2011



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 Mount Laurel, NJ 08054
 Toll Free 877-428-4285
 Local: 856-231-9449
 Fax: 856-231-9818

CERTIFICATE OF ANALYSIS

Client: Environ. Design International
 33 W Monroe, Suite 1825
 Chicago IL 60603

Report Date: 9/19/2011
Report No.: 252209
Project: Naval Station Great Lakes
Project No.: 1602.029

BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 4427507	Description / Location: White Insulation			
Client No.: THA6-18	TSI Fitting Yellow Line Pit 156			
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
70	Chrysotile	None Detected	None Detected	30

Lab No.: 4427508	Description / Location: Brown Insulation			
Client No.: THA7-19	TSI On Elbow Blue Line Pit 6			
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
PC 4.8	Chrysotile	50	Mineral Wool	PC 45.2

Lab No.: 4427509	Description / Location: Grey/White Insulation			
Client No.: THA8-22	TSI On Elbow Orange Line Pit 6			
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
10	Chrysotile	40	Mineral Wool	50

Lab No.: 4427510	Description / Location: Grey Insulation			
Client No.: THA9-25	TSI On Elbow Yellow Line Pit 6			
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
20	Chrysotile	40	Mineral Wool	40

Accreditation **NIST-NVLAP No. 101165-0** **NY-DOH No. 11021** **AIHA-LAP, LLC No. 100188**

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 This report shall not be reproduced except in full, without written approval of the laboratory.*

Analytical Method: EPA 600/R-93/116

Comments: (PC) Indicates Stratified Point Count Method performed. Method not performed unless stated. Quantification at <0.25% by volume is possible with this method. (PC-Trace) represents this limit of quantitation. (PC-Trace) means that asbestos was detected but is not quantifiable under the Point Counting regimen. Analysis includes all distinct separable layers in accordance with EPA 600 Method. If not reported or otherwise noted, layer is either not present or the client has specifically requested that it not be analyzed. Small asbestos fibers may be missed by PLM due to resolution limitations of the optical microscope. Therefore, negative PLM results cannot be guaranteed. Electron Microscopy can be used as a confirming technique. Regulatory Limit is based upon the sample matrix.

Analysis Performed By: L. Price

Date: 9/19/2011



9000 Commerce Parkway, Ste B
 Mount Laurel, NJ 08054
 Toll Free 877-428-4285
 Local: 856-231-9449
 Fax: 856-231-9818

CERTIFICATE OF ANALYSIS

Client: Environ. Design International
 33 W Monroe, Suite 1825
 Chicago IL 60603

Report Date: 9/19/2011
Report No: 252209
Project: Naval Station Great Lakes
Project No.: 1602.029

BULK SAMPLE ANALYSIS SUMMARY

Lab No.:	4427511	Description / Location:	Brown/Tan Insulation		
Client No.:	THA10-28		TSI Valve Orange Line Pit 155		
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>	
20	Chrysotile	20	Cellulose	60	

Accreditation **NIST-NVLAP No. 101165-0** **NY-DOH No. 11021** **AIHA-LAP, LLC No. 100188**

*This confidential report relates only to those item(s) tested and does not represent an endorsement by NIST-NVLAP, AIHA or any agency of the U.S. government
 This report shall not be reproduced except in full, without written approval of the laboratory.*

Analytical Method: EPA 600/R-93/116

Comments: (PC) Indicates Stratified Point Count Method performed. Method not performed unless stated. Quantification at <0.25% by volume is possible with this method. (PC-Trace) represents this limit of quantitation. (PC-Trace) means that asbestos was detected but is not quantifiable under the Point Counting regimen. Analysis includes all distinct separable layers in accordance with EPA 600 Method. If not reported or otherwise noted, layer is either not present or the client has specifically requested that it not be analyzed. Small asbestos fibers may be missed by PLM due to resolution limitations of the optical microscope. Therefore, negative PLM results cannot be guaranteed. Electron Microscopy can be used as a confirming technique. Regulatory Limit is based upon the sample matrix.

Analysis Performed By: L. Price

Date: 9/19/2011



**Environmental Design
International inc.**

33 W. Monroe Street, Suite 1825
Chicago, Illinois 60603
Phone: 312-345-1400
Fax: 312-345-0529

Offices also in:
Columbus, Ohio
Gary, Indiana
Milwaukee, Wisconsin

CHAIN OF CUSTODY / ANALYSIS REQUEST FORM

Custody and Sample Information - Complete ALL information. Put N/A in blanks not applicable. Press firmly.

1. Sender's Name/Project No.		2. Sampling Site Address/Contact Telephone No.										Indicate Analysis Requested		Laboratory Number						
3. Sampled by (Signature)		5. Date of Sample Shipment				6. Date Results Needed						TIME (Minutes)	# of Containers							
Item No	Sample Number	Sample Location/Description	COMP	GRAB	WATER	SOIL	AIR	SLUDGE	OTHER	HCl	HNO ₃			H ₂ O ₂	ICF	NONE	OTHER	Date	Sampling Time	VOLUME (L)
1	THA1-01	Black pipe wrap over fibreglass blue pipe pit 4	X					X						X		9/8			1	4427490
2	02	blue pipe pit 13																		4427491
3	03	blue pipe pit 143																		4427492
4	THA2-04	White TSI fitting blue pipe pit 4																		4427493
5	05	blue pipe pit 13																		4427494
6	06	blue pipe pit 143																		4427495
7	THA3-07	Black wrap over fibreglass orange line pit 4																		4427496
8	08	orange line pit 13																		4427497
9	09	orange line pit 143																		4427498
10	THA4-10	White TSI fitting orange line pit 4																		4427499
Time In:		Time Out:		Total Hours:		Signature:														
Released by (Signature)		Date/Time Released		Delivery Method		Released by (Signature)		Date/Time Released		Company/Agency Affiliation		Condition Noted								
<i>[Signature]</i>		9/12/11 12:00		To Archive/Disposal		<i>[Signature]</i>		9/12/11 12:00		IATL-BY		<i>[Signature]</i>								
Comments:		USA 9-18-11																		

RECEIVED



CHAIN OF CUSTODY / ANALYSIS REQUEST FORM

33 W. Monroe Street, Suite 1825
 Chicago, Illinois 60603
 Phone: 312-345-1400
 Fax: 312-345-0529

Offices also in:
 Columbus, Ohio
 Gary, Indiana
 Milwaukee, Wisconsin

n blanks not applicable. Press firmly.

Custody and Sample Information - Complete ALL

1. Sender's Name/Project No.		2. Sampling Site Address/Contact Telephone No.										Indicate Analysis Requested		Laboratory Number			
3. Sampled by (Signature)		4. # of Samples in Shipment				5. Date of Sample Shipment				6. Date Results Needed		TIME (Minutes)	# of Containers				
Item No.	Sample Number	Sample Location/Description		Matrix			Method Preserved				Sampling			VOLUME (L)			
		WATER	SOIL	AIR	SLUDGE	OTHER	HCl	HNO ₃	H ₂ SO ₄	ICE	NONE	OTHER	Date	Time			
1	THA4-11					X					X		9/8			X	4427500
2	12																4427501
3	THA5-13																4427502
4	14																4427503
5	15																4427504
6	THA6-16																4427505
7	17																4427506
8	18																4427507
9	THA7-19																4427508
10	THA8-22																4427509
Time In:		Time Out:		Total Hours:										Signature:		Print Name:	
Released by (Signature)		Date/Time Released		Delivery Method				Released by (Signature)				Date/Time Released		Company/Agency Affiliation		Condition Noted	
		9/13/11 12:00		To Archive/Disposal													

Comments:

White - Client/Customer Copy
 Yellow - Billing Copy
 Blue - Lab Use Only

February 2, 2012

ENVIRONMENTAL DESIGN INTERNATIONAL INC.
33 West Monroe Street
Suite 1825
Chicago, IL 60603-5326

Reference: Environmental Design International Inc., Naval Station Great Lakes Reports, 1602.029

The employment of the USEPA 600 R93-116 analytical method is equivalent to the 40CFR763 required 1982 Interim Method listed on our accreditation.

Furthermore, all of the analytical work performed by iATL for this project in 2011 that listed this analytical method -was performed by the analytical technique of Polarized Light Microscopy (PLM).

If you have further questions or need to contact us please either call at (856) 231-9449 or email me directly at frankehrenfeld@iatl.com.

Regards,



Frank E. Ehrenfeld III
Laboratory Director – Vice President

Cc: Patricia Feeley - EDI
Gary Flentge – EDI
Harvey Pokorny – NAVFAC - MW



June 30, 2011

Mr. Frank E. Ehrenfeld, III
International Asbestos Testing Labs
9000 Commerce Parkway
Suite B
Mt. Laurel, NJ 08054

NVLAP Lab Code: 101165-0

Dear Mr. Ehrenfeld:

I am pleased to inform you that continuing accreditation for specific test methods in Bulk Asbestos Fiber Analysis (PLM) is granted to your organization under the National Voluntary Laboratory Accreditation Program (NVLAP). This accreditation is effective until June 30, 2012, provided that your organization continues to comply with accreditation requirements contained in the NVLAP Procedures.

Your Certificate of Accreditation is enclosed along with a statement of your Scope of Accreditation. You may reproduce these documents in their entirety and announce your organization's accreditation status using the NVLAP symbol and/or term in business publications, the trade press, and other business-oriented literature. Accreditation does not relieve your organization from observing and complying with any applicable existing laws and/or regulations.

We are pleased to have you participate in NVLAP and look forward to your continued association with this program. If you have any questions concerning your NVLAP accreditation, please direct them to Hazel M. Richmond, Program Manager, Laboratory Accreditation Program, National Institute of Standards and Technology, 100 Bureau Dr. Stop 2140, Gaithersburg, MD 20899-2140; (301) 975-4016.

Sincerely,

Sally S. Bruce, Chief
Laboratory Accreditation Program

Enclosure(s)





**National Voluntary
Laboratory Accreditation Program**



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2005

International Asbestos Testing Laboratories

9000 Commerce Parkway
Suite B

Mt. Laurel, NJ 08054

Mr. Frank E. Ehrenfeld, III

Phone: 856-231-9449 Fax: 856-231-9818

E-Mail: frankehrenfeld@iatl.com

URL: <http://www.iatl.com>

BULK ASBESTOS FIBER ANALYSIS (PLM)

NVLAP LAB CODE 101165-0

NVLAP Code Designation / Description

18/A01 EPA-600/M4-82-020: Interim Method for the Determination of Asbestos in Bulk Insulation Samples

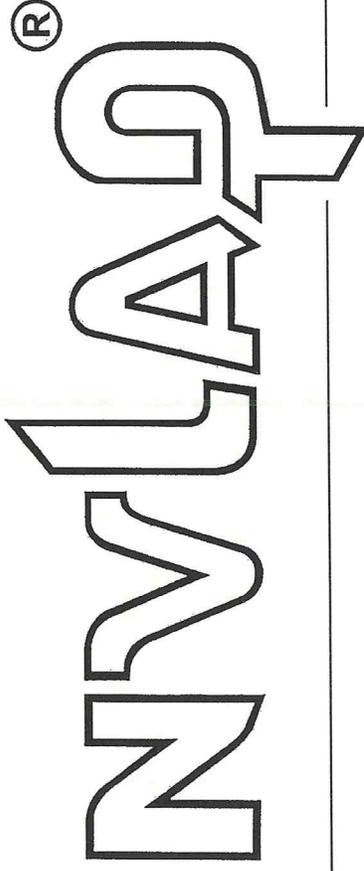
2011-07-01 through 2012-06-30

Effective dates

Sally S. Bruce

For the National Institute of Standards and Technology

United States Department of Commerce
National Institute of Standards and Technology



Certificate of Accreditation to ISO/IEC 17025:2005

NVLAP LAB CODE: 101165-0

International Asbestos Testing Laboratories

Mt. Laurel, NJ

is accredited by the National Voluntary Laboratory Accreditation Program for specific services,
listed on the Scope of Accreditation, for:

BULK ASBESTOS FIBER ANALYSIS

*This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2005.
This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality
management system (refer to joint ISO-ILAC-IAF Communiqué dated January 2009).*

2011-07-01 through 2012-06-30

Effective dates



Dolly S. Bruce
For the National Institute of Standards and Technology



June 30, 2011

Mr. Frank E. Ehrenfeld, III
International Asbestos Testing Labs
9000 Commerce Parkway
Suite B
Mt. Laurel, NJ 08054

NVLAP Lab Code: 101165-0

Dear Mr. Ehrenfeld:

I am pleased to inform you that continuing accreditation for specific test methods in Airborne Asbestos Fiber Analysis (TEM) is granted to your organization under the National Voluntary Laboratory Accreditation Program (NVLAP). This accreditation is effective until June 30, 2012, provided that your organization continues to comply with accreditation requirements contained in the NVLAP Procedures.

Your Certificate of Accreditation is enclosed along with a statement of your Scope of Accreditation. You may reproduce these documents in their entirety and announce your organization's accreditation status using the NVLAP symbol and/or term in business publications, the trade press, and other business-oriented literature. Accreditation does not relieve your organization from observing and complying with any applicable existing laws and/or regulations.

We are pleased to have you participate in NVLAP and look forward to your continued association with this program. If you have any questions concerning your NVLAP accreditation, please direct them to Hazel M. Richmond, Program Manager, Laboratory Accreditation Program, National Institute of Standards and Technology, 100 Bureau Dr. Stop 2140, Gaithersburg, MD 20899-2140; (301) 975-4016.

Sincerely,

Sally S. Bruce, Chief
Laboratory Accreditation Program

Enclosure(s)





**National Voluntary
Laboratory Accreditation Program**



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2005

International Asbestos Testing Laboratories

9000 Commerce Parkway

Suite B

Mt. Laurel, NJ 08054

Mr. Frank E. Ehrenfeld, III

Phone: 856-231-9449 Fax: 856-231-9818

E-Mail: frankehrenfeld@iatl.com

URL: <http://www.iatl.com>

AIRBORNE ASBESTOS FIBER ANALYSIS (TEM)

NVLAP LAB CODE 101165-0

NVLAP Code Designation / Description

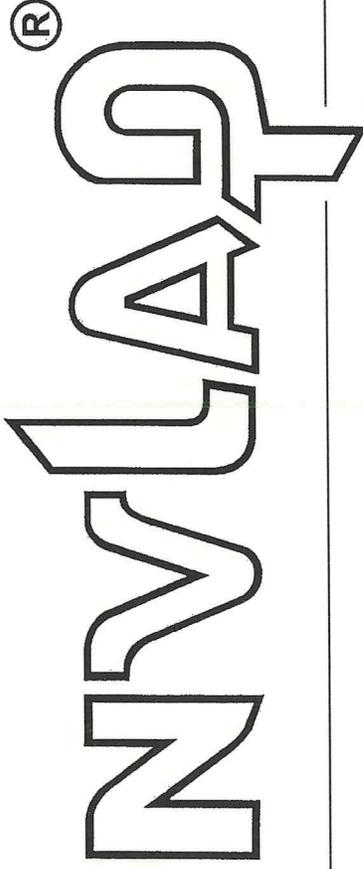
18/A02 U.S. EPA's "Interim Transmission Electron Microscopy Analytical Methods-Mandatory and Nonmandatory-and Mandatory Section to Determine Completion of Response Actions" as found in 40 CFR, Part 763, Subpart E, Appendix A.

2011-07-01 through 2012-06-30

Effective dates

For the National Institute of Standards and Technology

United States Department of Commerce
National Institute of Standards and Technology



Certificate of Accreditation to ISO/IEC 17025:2005

NVLAP LAB CODE: 101165-0

International Asbestos Testing Laboratories
Mt. Laurel, NJ

is accredited by the National Voluntary Laboratory Accreditation Program for specific services,
listed on the Scope of Accreditation, for:

AIRBORNE ASBESTOS FIBER ANALYSIS

*This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2005.
This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality
management system (refer to joint ISO-ILAC-IAF Communique dated January 2009).*

2011-07-01 through 2012-06-30

Effective dates



Dolly S. Bruce

For the National Institute of Standards and Technology



09/28/2011

Laboratory ID: 100188

Frank Ehrenfeld
International Asbestos Testing Laboratories (IATL)
9000 Commerce Parkway
Suite B
Mt. Laurel, NJ 08054

Dear Mr. Frank Ehrenfeld:

Congratulations! The AIHA Laboratory Accreditation Programs (AIHA-LAP), LLC's Analytical Accreditation Board (AAB) has approved International Asbestos Testing Laboratories (IATL) as an accredited Industrial Hygiene and Environmental Lead laboratory.

Accreditation documentation includes the IHLAP and ELLAP accreditation certificate, scope of accreditation document and a copy of the current AIHA-LAP, LLC license agreement (if your completed agreement is not on file at AIHA-LAP, LLC). The accreditation logo has been designed for use by all AIHA-LAP, LLC accredited laboratories. If your laboratory chooses to use the logo in its advertising the laboratory's accreditation, you must complete and return the AIHA-LAP, LLC license agreement to a Laboratory Accreditation Specialist. Once submitted, an electronic copy of the accreditation logo will be sent to you. Please inform us if your laboratory does not wish to use the logo in advertising.

Laboratory accreditation shall be maintained by continued compliance with IHLAP and ELLAP requirements (*see Policy Modules 2B, 2C, 6B, and 6C*), which includes proficient participation in AIHA-LAP, LLC approved proficiency testing, demonstration of competency, or round robin program as indicated on the AIHA-LAP "Approved PT and Round Robin" webpage, its associated PT-Scope table, and as required in Policy Module 6, for all Fields of Testing (FoTs) for which the laboratory is accredited. An accredited laboratory that wishes to expand into a new FoT must submit an updated accreditation application to AIHA-LAP, LLC for review by the AAB.

Any changes in ownership, laboratory location, personnel, FoTs/Methods, or significant procedural changes shall be reported to AIHA-LAP, LLC in writing within twenty (20) business days of the change.

The accreditation certificate is the property of AIHA-LAP, LLC and must be returned to us should your laboratory withdraw or be removed from the IHLAP and ELLAP.

Again, congratulations. If you have any questions, please contact Edmund Wong, Laboratory Accreditation Specialist, at (703) 846-0716.

Sincerely,

Cheryl O. Morton
Director
AIHA Laboratory Accreditation Programs, LLC



AIHA Laboratory Accreditation Programs, LLC

acknowledges that

International Asbestos Testing Laboratories (IATL)

9000 Commerce Parkway, Suite B, Mt. Laurel, NJ 08054

Laboratory ID: 100188

along with all premises from which key activities are performed, as listed above, has fulfilled the requirements of the AIHA Laboratory Accreditation Programs (AIHA-LAP), LLC accreditation to the ISO/IEC 17025:2005 international standard, General Requirements for the Competence of Testing and Calibration Laboratories in the following:

LABORATORY ACCREDITATION PROGRAMS

- ✓ INDUSTRIAL HYGIENE Accreditation Expires: 05/01/2013
✓ ENVIRONMENTAL LEAD Accreditation Expires: 05/01/2013
☐ ENVIRONMENTAL MICROBIOLOGY Accreditation Expires:
☐ FOOD Accreditation Expires:

Specific Field(s) of Testing (FoT)/Method(s) within each Accreditation Program for which the above named laboratory maintains accreditation is outlined on the attached Scope of Accreditation. Continued accreditation is contingent upon successful on-going compliance with ISO/IEC 17025:2005 and AIHA-LAP, LLC requirements. This certificate is not valid without the attached Scope of Accreditation. Please review the AIHA-LAP, LLC website (www.aihaaccreditedlabs.org) for the most current Scope.

Christine Powell

Christine Powell
Chairperson, Analytical Accreditation Board

Cheryl O. Morton

Cheryl O. Morton
Director, AIHA Laboratory Accreditation Programs, LLC

Revision 11: 01/13/2011

Date Issued: 10/01/2011



AIHA Laboratory Accreditation Programs, LLC

SCOPE OF ACCREDITATION

International Asbestos Testing Laboratories (IATL)
 9000 Commerce Parkway, Suite B, Mt. Laurel, NJ 08054

Laboratory ID: **100188**
 Issue Date: 10/01/2011

The laboratory is approved for those specific field(s) of testing/methods listed in the table below. Clients are urged to verify the laboratory's current accreditation status for the particular field(s) of testing/Methods, since these can change due to proficiency status, suspension and/or revocation. A complete listing of currently accredited Industrial Hygiene laboratories is available on the AIHA-LAP, LLC website at: <http://www.aihaaccreditedlabs.org>

Industrial Hygiene Laboratory Accreditation Program (IHLAP)

Initial Accreditation Date: 03/01/1991

IHLAP Scope Category	Field of Testing (FoT)	Technology sub-type/ Detector	Published Reference Method/ Title of In-house Method	Method Description or Analyte <i>(for internal methods only)</i>
Spectrometry Core	Atomic Absorption	FAA	NIOSH 7082	
Asbestos/Fiber Microscopy Core	Polarized Light Microscopy (PLM)		EPA 600/R-93/116	
	Phase Contrast Microscopy (PCM)		NIOSH 7400	
	Transmission Electron Microscopy (TEM)		NIOSH 7402	

The laboratory participates in the following AIHA-LAP, LLC-approved proficiency testing programs:

- | | |
|---|--|
| <ul style="list-style-type: none"> √ AIHA-PAT Programs, LLC IHPAT Metals <input type="checkbox"/> AIHA-PAT Programs, LLC IHPAT Organic Solvents <input type="checkbox"/> AIHA-PAT Programs, LLC IHPAT Silica <input type="checkbox"/> AIHA-PAT Programs, LLC IHPAT Diffusive Sampler (3M) <input type="checkbox"/> AIHA-PAT Programs, LLC IHPAT Diffusive Sampler (SKC) <input type="checkbox"/> AIHA-PAT Programs, LLC IHPAT Diffusive Sampler (AT) √ AIHA-PAT Programs, LLC IHPAT Asbestos <input type="checkbox"/> AIHA-PAT Programs, LLC Bulk Asbestos (BAPAT) <input type="checkbox"/> AIHA-PAT Programs, LLC Beryllium (BePAT) <input type="checkbox"/> HSE Workplace Analytical Scheme for Proficiency (WASP) (Formaldehyde) <input type="checkbox"/> HSE Workplace Analytical Scheme for Proficiency (WASP) (Thermal Desorption Tubes) | <ul style="list-style-type: none"> <input type="checkbox"/> Pharmaceutical Round Robin <input type="checkbox"/> Compressed/Breathing Air Round Robin √ National Voluntary Laboratory Accreditation Program (NVLAP - determined at the time of site assessment) <input type="checkbox"/> New York State Department of Health (NYS DOH – PCM and TEM) <input type="checkbox"/> ERA Air and Emissions standards for indoor air quality <input type="checkbox"/> Institut für Arbeitsschutz der Deutschen Gesetzlichen Unfallversicherung (IFA, formerly BGIA) <input type="checkbox"/> Institut de Recherche Robert-Sauvé en Santé et en Sécurité du Travail (IRSST) |
|---|--|



AIHA Laboratory Accreditation Programs, LLC SCOPE OF ACCREDITATION

International Asbestos Testing Laboratories (IATL)
9000 Commerce Parkway, Suite B, Mt. Laurel, NJ 08054

Laboratory ID: **100188**
Issue Date: 10/01/2011

The laboratory is approved for those specific field(s) of testing/methods listed in the table below. Clients are urged to verify the laboratory's current accreditation status for the particular field(s) of testing/Methods, since these can change due to proficiency status, suspension and/or revocation. A complete listing of currently accredited Environmental Lead laboratories is available on the AIHA-LAP, LLC website at: <http://www.aihaaccreditedlabs.org>

The EPA recognizes the AIHA-LAP, LLC ELLAP program as meeting the requirements of the National Lead Laboratory Accreditation Program (NLLAP) established under Title X of the Residential Lead-Based Paint Hazard Reduction Act of 1992 and includes paint, soil and dust wipe analysis. Air analysis is not included as part of the NLLAP.

Environmental Lead Laboratory Accreditation Program (ELLAP)

Initial Accreditation Date: 01/20/1997

Field of Testing (FoT)	Method	Method Description <i>(for internal methods only)</i>
Airborne Dust	NIOSH 7082	
Paint	ASTM D3335-85a	
Settled Dust by Wipe	EPA SW-846 7420	
Soil	EPA SW-846 7420	

The laboratory participates in the following AIHA-LAP, LLC-approved proficiency testing programs:

- √ Paint
- √ Soil
- √ Settled Dust by Wipe
- √ Airborne Dust

Appendix D: Employee License and Certifications



**ASBESTOS
PROFESSIONAL
LICENSE**

ID NUMBER 100 - 10088
ISSUED 3/16/2011
EXPIRES 05/15/2012

JOSE G AGUILERA
2652 S. CENTRAL PARK AVEN
CHICAGO, IL 60623
Environmental Health



This is to Certify that
Jose Aguilera
Has Satisfactorily Completed Training in Accordance
with Applicable Rules and Regulations
Asbestos Building Inspector Refresher

Completed: 1/19/2011 Certificate
Expires: 1/19/2012 BIR101190180

2011
Occupational Training & Supply, Inc.
7233 Adams Street • Willowbrook, IL 60527 • (630) 655-3900

Heartsaver® First Aid
Jose Aguilera

This card certifies that the above individual has successfully completed the objectives and skills evaluations in accordance with the curriculum of the AHA for Heartsaver First Aid Program.

Modules Completed: (A) (B) (C) (D) (E)

AUG 21 2010 **AUG 21 2012**
Issue Date Recommended Renewal Date



Learn and Live

Training Center _____
TC Address _____
Contact Info _____
Course **CHICAGOLAND CPR & SAFETY TRAINING**
Location **THOMAS DUKUPS**
Instructor **708-259-6018**

Holder's Signature *Jose Aguilera*

American Heart Association Tampering with this card will alter its appearance. 80-1-2c

ENDORSEMENTS

TC EXPIRES

INSPECTOR

4/19/2012

PROJECT MANAGER

7/30/2011

AIR SAMPLING PROFESSIONAL

Alteration of this license shall result in legal action

This license issued under authority of the State of Illinois
Department of Public Health

This license is valid only when accompanied by a valid
training course certificate.

Certificate No: SLW030411071R

Issue Date: March 8, 2011

Expiration Date: March 4, 2012

This diploma is awarded to

Jose Aguilera



for successfully completing and passing the examination for the

ASBESTOS INSPECTOR

REFRESHER TRAINING COURSE

This training course complies with the requirements of TSCA Title II
and is accredited by the State of Wisconsin, Department of Health Services,
under chapter HFS 159, Wis. Admin. Code,
conducted by

Lake States Environmental, Ltd.

at

1616 Crestview Dr, Hudson, WI on March 4, 2011

Examination Date: March 4, 2011

Lake States Environmental, Ltd
P. O. Box 645, Rice Lake, WI 54868
(800) 254-9811


Bob Rogalla - Training Course Manager

Certificate No: SLM030411061R

Expiration Date: March 4, 2012

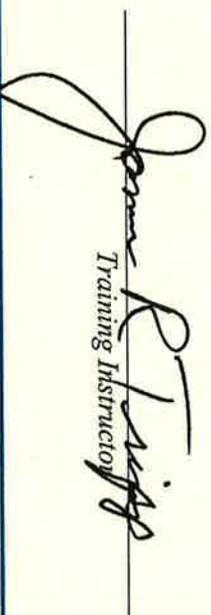
This is to certify that
Jose Aguilera

has attended and successfully completed an
**ASBESTOS INSPECTOR
REFRESHER TRAINING COURSE**

permitted by
the State of Minnesota under Minnesota Rules 4620.3702 to 4620.3722
and meets the requirements of
Section 206 of Title II of the Toxic Substances Control Act (TSCA)
conducted by

Lake States Environmental, Ltd.
in
Hudson, WI on March 4, 2011
Examination Date: March 4, 2011

Lake States Environmental, Ltd
P. O. Box 645, Rice Lake, WI 54868
(800) 254-9811


Training Instructor

Certificate No: 5LW03031108SR

Issue Date: March 8, 2011

Expiration Date: March 3, 2012

This diploma is awarded to

Jose Aguilera

for successfully completing and passing the examination for the

ASBESTOS SUPERVISOR

REFRESHER TRAINING COURSE

*This training course complies with the requirements of TSCA Title II
and is accredited by the State of Wisconsin, Department of Health Services,
under chapter HFS 159, Wis. Admin. Code,
conducted by*

Lake States Environmental, Ltd.

at

1616 Crestview Dr, Hudson, WI on March 3, 2011

Examination Date: March 3, 2011

*Lake States Environmental, Ltd
P. O. Box 645, Rice Lake, WI 54868
(800) 254-9811*



Bob Rogalla - Training Course Manager

A handwritten signature in blue ink, appearing to read "Bob Rogalla". The signature is fluid and cursive, written over a horizontal line.

Certificate No: SLM03031106SR

Expiration Date: March 3, 2012

This is to certify that
Jose Aguilera

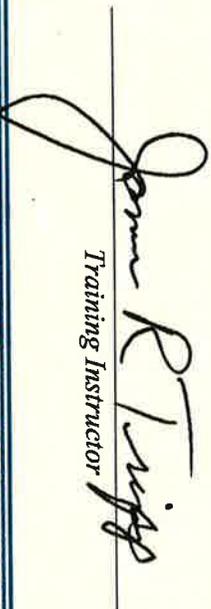
has attended and successfully completed an
**ASBESTOS SUPERVISOR
REFRESHER TRAINING COURSE**

permitted by
the State of Minnesota under Minnesota Rules 4620.3702 to 4620.3722
and meets the requirements of
Section 206 of Title II of the Toxic Substances Control Act (TSCA)
conducted by

Lake States Environmental, Ltd.

Hudson, WI on March 3, 2011
Examination Date: March 3, 2011

Lake States Environmental, Ltd
P. O. Box 645, Rice Lake, WI 54868
(800) 254-9811


Training Instructor



Occupational Training & Supply, Inc.

7233 Adams Street ♦ Willowbrook, IL 60527 ♦ (630) 655-3900

Jose Aguilera

has successfully completed the 4 hour Asbestos Building Inspector Refresher course and has passed the competency exam with a minimum score of 70%. This course is accredited by the Illinois Department of Public Health and the Indiana Department of Environmental Management for purposes of accreditation in accordance with EPA 40 CFR 763, Asbestos Hazard Emergency Response Act (AHERA) and TSCA Title II.

Asbestos Building Inspector Refresher

Course Date: 1/19/2011

Expiration Date: 1/19/2012

Exam Date: 1/19/2011

Certificate: BIR1101190180


Kathy DeSalvo, Director

2011



Occupational Training & Supply, Inc.

7233 Adams Street ♦ Willowbrook, IL 60527 ♦ (630) 655-3900

Jose G. Aguilera

has successfully completed the 16 hour Lead Risk Assessor course and has passed the competency exam with a minimum score of 70%. This course is accredited by the Illinois Department of Public Health in accordance with the Illinois Lead Poisoning Prevention Code.

Lead Risk Assessor

Course Date: 4/2-3/2009

Expiration Date: 4/3/2012

Exam Date: 4/3/2009

Certificate: LRA0904021069



Kathy DeSalvo Director

2009



**ASBESTOS
PROFESSIONAL
LICENSE**

ID NUMBER
100 - 00249

ISSUED
2/8/2011

EXPIRES
05/15/2012

JOHN C FEELY
9513 SOUTH LAWTON AVENUE
OAK LAWN, IL 60453



Environmental Health



**LEAD RISK
ASSESSOR LICENSE**

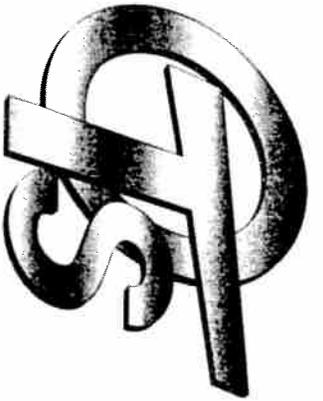
LEAD ID ISSUED
007573 1/6/2011

EXPIRES
1/31/2012

John C Feely
9513 S. Lawton
Oak Lawn, IL 60453



ILLINOIS LEAD PROGRAM
Environmental Health



Occupational Training & Supply, Inc.

7233 Adams Street • Willowbrook, IL 60527 • (630) 655-3900

John Feely

has successfully completed the 4 hour Asbestos Building Inspector Refresher course and has passed the competency exam with a minimum score of 70%. This course is accredited by the Illinois Department of Public Health and the Indiana Department of Environmental Management for purposes of accreditation in accordance with EPA 40 CFR 763, Asbestos Hazard Emergency Response Act (AHERA) and TSCA Title II.

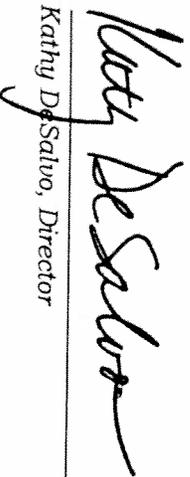
Asbestos Building Inspector Refresher

Course Date: 1/7/2011

Expiration Date: 1/7/2012

Exam Date: 1/7/2011

Certificate: BIR1101070045


Kathy DeSalvo, Director

2011



**ASBESTOS
PROFESSIONAL
LICENSE**

ID NUMBER
100 - 18299

ISSUED
4/11/2011

EXPIRES
05/15/2012

CRAIG A CHAMBERS
1438 W EDGEWATER AVE
CHICAGO, IL 60660

Environmental Health



ENDORSEMENTS

TC EXPIRES

PROJECT DESIGNER

4/1/2012

Alteration of this license shall result in legal action
This license issued under authority of the State of Illinois
Department of Public Health
This license is valid only when accompanied by a valid
training course certificate.