LIMITED PRE-RENOVATION
ASBESTOS INSPECTION REPORT
IMPROVE CHILLER PLAN EFFICIENCY
BUILDINGS 131, 133, 133CA AND 188
VA PROJECT #556-14-006

SITE:

CAPTAIN JAMES A. LOVELL FHCC
3001 GREEN BAY ROAD
NORTH CHICAGO, ILLINOIS

PREPARED FOR:

NICHOLAS MIGAN
PROJECT ARCHITECT
CHEQUAMEGON BAY GROUP, INC.
933 NORTH MAYFAIR ROAD, SUITE 320
WAUWATOSA, WI 53226

PREPARED BY:

THE SIGMA GROUP
Single Source. Sound Solutions.

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1300 West Canal Street
Milwaukee, WI 53233
414-643-4200

PROJECT REFERENCE #14786

AUGUST 2014

TABLE OF CONTENTS

1. INTRODUCTION

Chequamegon Bay Group, Inc. (Chequamegon) retained The Sigma Group, Inc. (Sigma) to perform a pre-renovation asbestos inspection in advance of the Improve Chiller Plan Efficiency project at the Captain James A. Lovell FHCC (Lovell FHCC) located at 3001 Green Bay Road, North Chicago, Illinois. The asbestos inspection included visual observation, material sampling, and laboratory analysis of suspect asbestos-containing building materials (ACBM).

State of Illinois certified asbestos inspectors, Mr. Dale Armbruster (100-18794) and Mr. Tom McCoy (100-18793), performed the limited pre-renovation asbestos inspection in select mechanical rooms inside Buildings 131, 133, 133CA, and 188 and 111 on July 23, 2014. Appendix A provides copies of Mr. Armbruster's and Mr. McCoy's asbestos inspection certification cards. This limited pre-renovation asbestos inspection was performed in substantial compliance with the United States Environmental Protection Agency's (USEPA) National Emission Standards for Hazardous Air Pollutants (NESHAP) asbestos regulations (40 CFR 61, Subpart M), Illinois Environmental Protection Agency (IEPA) asbestos regulations in the Emission Standards and Limitations for Stationary Sources, Asbestos 35 IAC, Part 228, and the Illinois Department of Public Health (IDPH) Commercial and Public Buildings Asbestos Abatement Act (225 ILCS 207) inspection and sampling requirements with the exception of items and/or areas listed in the Qualifications of Report section.

Buildings 131, 133, 133CA, and 188 were occupied at the date and time of the inspection. Figures for Buildings 131, 133, 133CA, and 188 indicating the existing floor layouts, architectural room numbers, and approximate limits of work dated July 9, 2014 were provided to Sigma prior to the start of the inspection. The inspection scope was limited to the areas depicted on the 50% Schematic Design figures.

2. BACKGROUND

Pre-renovation asbestos inspections are required by the USEPA NESHAP regulations provided in 40 CFR 61 and the IDPH requirements specified in 225 ILCS 207). The Owner and/or Operator is required to perform a thorough asbestos inspection of the affected facility or part of the facility where the renovation operation will occur prior to the commencement of the renovation.

3. ASBESTOS SAMPLE COLLECTION AND ANALYSIS PROCEDURES

On July 23, 2014, Sigma visually inspected building materials and obtained representative samples from each identified homogeneous material of suspect ACBM within the limits of renovation with the exception of items listed in the Qualifications of Report section. The samples were submitted under chain of custody to International Asbestos Testing Laboratories, Inc. (IATL) in Mount Laurel, New Jersey for asbestos analysis. IATL is a National Voluntary Laboratory Accreditation Program (NVLAP) and American Industrial Hygiene Association (AIHA) approved laboratory. Samples were analyzed using Polarized Light Microscopy (PLM) coupled with Dispersion Staining as outlined in the USEPA's, *"Method for the Determination of Asbestos in Bulk Building Material (EPA-600/R93/116)".*

4. SUMMARY OF RESULTS

Analysis of the samples did not reveal the presence of asbestos in the identified materials. The materials determined not to contain asbestos are defined as non-ACBM. The following materials were identified during the limited inspection are classified as non-ACBM.

Building 131 –

- Rubber insulation mastic
- Fiberglass insulation paper wrap
- Spray-on insulation, gray

Building 133 –

- Rubber insulation mastic, black
- Fiberglass insulation paper wrap
- Spray-on insulation, gray

Building 133CA –

- Rubber insulation mastic, black
- Fiberglass insulation paper wrap

Building 188 –

- Fiberglass insulation paper wrap
- Stink block fittings on pipe

The floor plans and extent of inspection are illustrated on Figures 1, 2, 3 and 4. Copies of the Certificates of Analysis are provided in Appendix B. Photo documentation of each sample is provided in Appendix C.

5. REGULATORY DISCUSSION

The USEPA, IEPA, and OSHA regulate activities involving asbestos. The following provides a brief summary of the requirements specific to asbestos.

USEPA and WDNR

The NESHAP regulations authorized under the Clean Air Act and administered by the USEPA and the WDNR cover a wide variety of substances, including asbestos. NESHAP defines ACBM that must be removed prior to demolition and/or renovation and those ACBMs that can remain.

In addition to the requirements stated below, a trained individual knowledgeable with the requirements of 40 CFR Part 61, Subpart M must be onsite during demolition and/or renovation activities and be available during normal business hours. If any ACBM material becomes damaged or rendered friable during demolition and/or renovation, proper abatement measures must be immediately initiated by appropriately trained State of Illinois certified abatement personnel. Illinois Administrative Code Chapter 35, Part 228 defines requirements for the disposal of wastes containing asbestos.

Friable

Friable asbestos material is defined as a material containing more than one percent asbestos that when dry, can be crumbled, pulverized, or reduced to powder by hand pressure.

Category I

Non-friable Category I ACM is generally defined as packings, gaskets, resilient floor covering, and asphalt roofing containing more than one percent asbestos that when dry cannot be crumbled, pulverized, or reduced to powder by hand pressure.

Category II

Non-friable Category II ACBM is defined as any material, excluding Category I non-friable ACM, containing more than one percent asbestos that when dry cannot be crumbled, pulverized, or reduced to powder by hand pressure.

RACM

Regulated Asbestos Containing Material (RACM) is defined by the NESHAP as:

- Friable asbestos material; or
- Category I nonfriable ACM that has become friable; or
- Category I nonfriable ACM that will be or has been subject to sanding, grinding, cutting or abrading; or
- Category II nonfriable ACM that has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material in the course of demolition or renovation operations

With limited exceptions, the IEPA generally requires that all RACM be removed from a facility being demolished or renovated before any activity that would break up, dislodge, or similarly disturb the material or preclude access to the material for subsequent removal.

OSHA

OSHA regulates employee exposure to hazardous conditions. 29 Code of Federal Regulations (CFR) 1926 regulates employee exposure to hazardous substances in the construction industry. 29 CFR 1926.1101 regulates activities which may impact materials containing asbestos. OSHA defines asbestos as chrysotile, amosite, crocidolite, tremolite asbestos, anthophyllite asbestos, actinolite asbestos, and any of these minerals that have been chemically treated and/or altered. While materials determined to contain asbestos at less than one percent are not classified as ACBM and are therefore not regulated by the USEPA and IEPA, OSHA does regulate activities involving these materials.

6. RECOMMENDATIONS

Sigma recommends that the Owner and/or Operator maintain a copy of this report onsite. Additional recommendations are provided in the Qualifications of Report section provided below.

7. QUALIFICATIONS OF REPORT

The findings and recommendations included herein are based on information obtained during the site visit and from previous experience. The limitations of the report and recommended actions are as follows:

1. An assessment/inspection of non-building components including but not limited to office equipment, chairs, desks, tables, cabinets, wall hangings, and other equipment and materials used or stored by the former/current occupant was not conducted.

   It is recommended that these items be managed in accordance with all local, state, and federal rules and regulations.

2. Homogeneous material samples were collected from reasonably accessible areas only. Limited destructive investigation methods **were not** employed to identify additional materials not readily visible. During abatement, demolition, renovation, and/or further inspection, a potential exists for encountering asbestos and/or other hazardous materials not previously identified to become revealed.

   It is recommended that there is one individual on-site during abatement and demolition that is designated as a "Competent Person". At a minimum, this individual shall be a State of Illinois certified asbestos supervisor familiar with applicable asbestos and hazardous material related regulations; have the experience to recognize potential work crew and environmental exposures; institute proper personal protective equipment and personnel monitoring as necessary; have the authority to stop work; and meet training requirements established by the State of Illinois. Discovery of suspect asbestos and/or other hazardous materials should be reported immediately to the Owner so that appropriate measures can be implemented. Further sampling of newly discovered materials may be required to confirm the presence of ACBM within walls and other areas that were not visible or reasonably accessible during the asbestos inspection. Any additional or ACBM discovered after this inspection is the responsibility of the building owner.

3. The following floors, materials, building systems and/or areas were not evaluated for the presence of asbestos:

   - The buildings' electrical systems **were not** sampled for the presence of asbestos as they were energized at the date and time of the inspection; and
   - Flange gaskets were not observed within the limits of inspection. Any flange gaskets revealed during work should be assumed to contain asbestos or should be further evaluated prior to disturbing.

   The electrical panels were energized during the inspection and therefore could not be evaluated for the presence of asbestos. The electrical panels and flange gaskets located in the affected mechanical rooms, if not used with the new pumping systems, should be removed following all local, state, and federal rules and regulations.

8. STATE AND LOCAL REPORTING REQUIREMENTS

The IEPA, and IDPH require notification prior to asbestos abatement or demolition projects. North Chicago and Lake County should be consulted for applicability of additional local ordinances, codes, and permits.

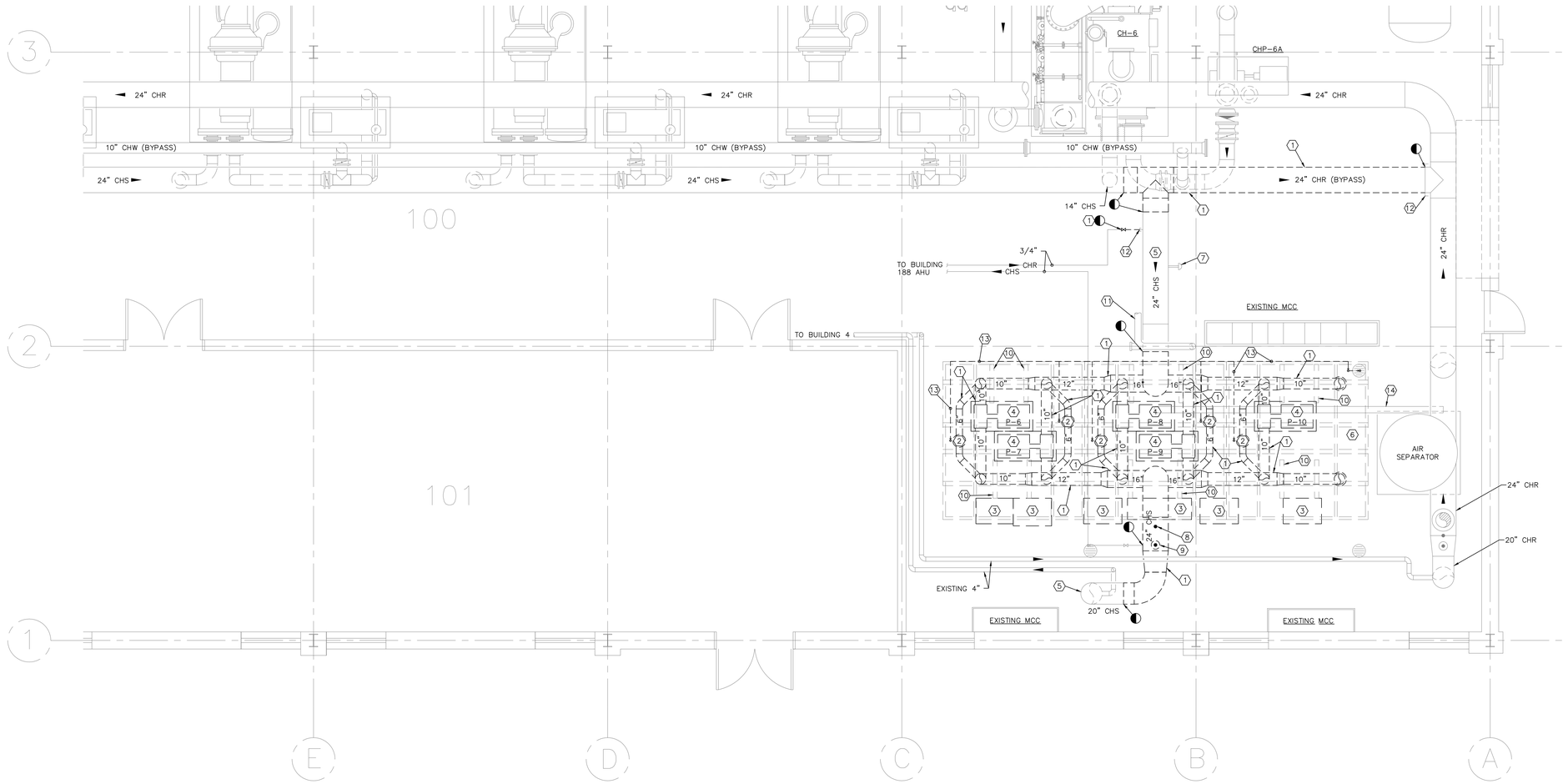
FIGURES

GENERAL NOTES:

1. CONTRACTOR SHALL COORDINATE DRAINING AND FILLING WITH THE FACILITY. CONTRACTOR WILL SUPPLY PERSONAL AND EQUIPMENT AS NECESSARY TO ASSIST THE FACILITY WITH THIS TASK.

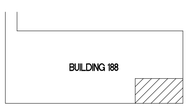
KEYED NOTES:

1. REMOVE PIPING COMPLETE TO POINT INDICATED.
2. REMOVE WATER FILTER AND BYPASS LINE. TYPICAL.
3. REMOVE PUMP CONTROLS AND DRIVES COMPLETE.
4. REMOVE PUMPS COMPLETE.
5. EXISTING CHILLED WATER MAINS TO REMAIN.
6. REMOVE EXISTING ACCESS PLATFORM AND SAFETY TIE OFF SYSTEM ASSEMBLY COMPLETE. RETURN ITEMS TO OWNER.
7. EXISTING CHILLED WATER BTU METER TO REMAIN.
8. EXISTING CEILING PIPE SUPPORT TO BE REMOVED. UPPER PORTION TO REMAIN.
9. EXISTING SYSTEM PRESSURE TAP TO BE REMOVED COMPLETE.
10. EXISTING SKID, SKID MOUNTED PIPE SUPPORTS AND CONCRETE PADS TO BE REMOVED COMPLETE.
11. EXISTING STORM PIPING ABOVE CHS PIPING TO REMAIN.
12. CAP PIPING AT MAIN.
13. REMOVE WATER FILTER DRAIN LINE COMPLETE.
14. EXISTING MECHANICAL HOIST AND RAIL SYSTEM TO REMAIN.



1 BUILDING 188 MECHANICAL DEMOLITION PLAN

SCALE: 1/4"-1'-0"



KEY PLAN

SCALE: N.T.S.

100% CONSTRUCTION DOCUMENTS

Revisions:	Date

Dept. of Veterans Affairs
James A. Lovell Federal Health Care Center
3001 Green Bay Rd.
North Chicago, IL

CONSULTANTS:

APOGEE Consulting Group
NC License # C-1848

Middleton Construction Consulting
Construction Estimating and Owner's Representation

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Single Source. Sound Solutions.
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PROJECT LEADER:

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9310 W. MYFAIR RD.
SUITE 300
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PHONE (414) 258-6004
FAX: (414) 258-6154

Drawing Title	BLDG 188 MECHANICAL DEMOLITION PLAN
Approved: Project Director	
Project Title	Improve Chiller Plant Efficiency
Location	Lovell Federal Health Care Center,North Chicago, IL
Date	August 28, 2014
Checked By:	JWM
Drawn By:	EKE
Project Number	556-14-006
Building Number	131, 133, 133CA, 188
Drawing Number	MD101

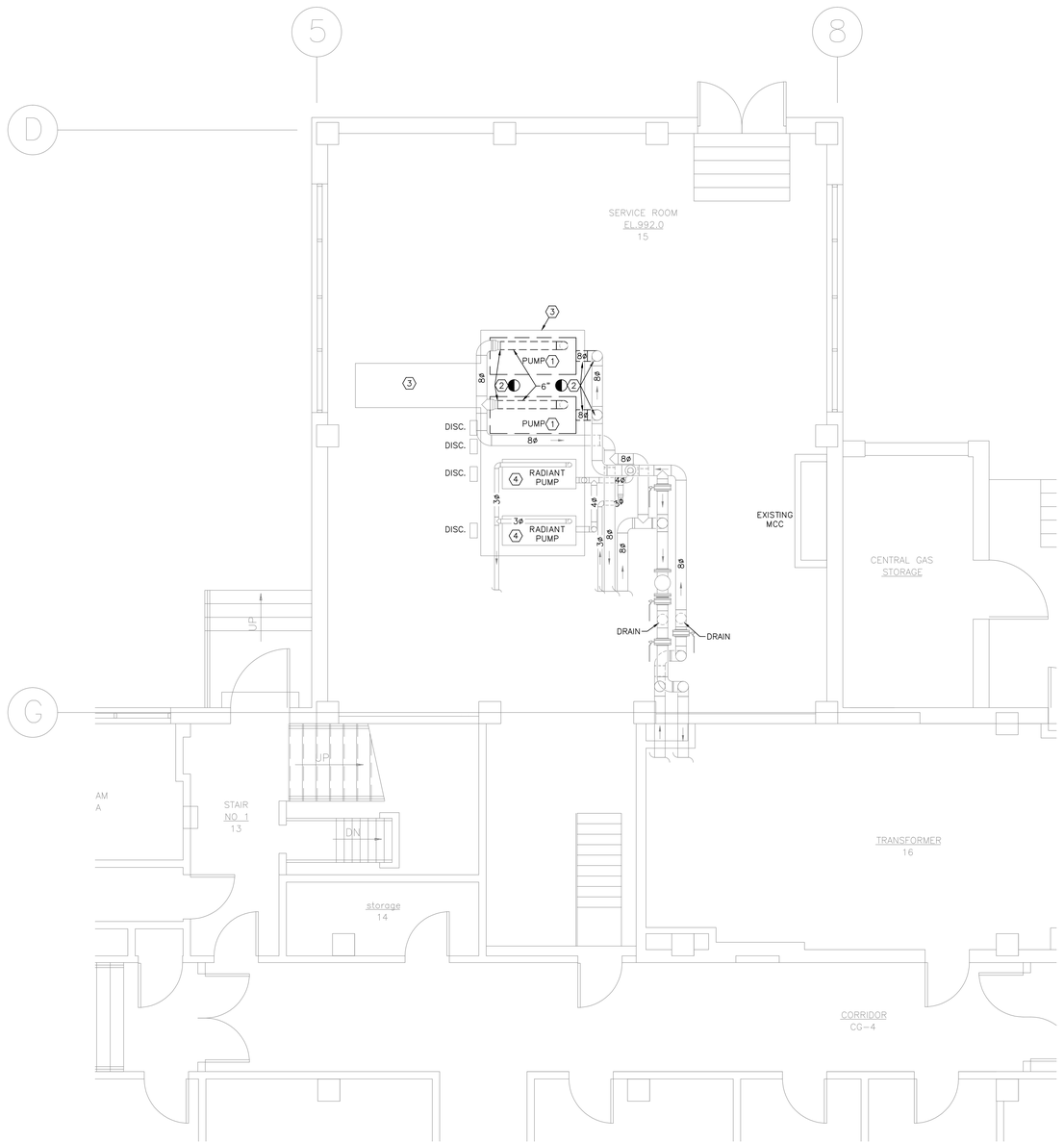
Office of Facilities Management

Department of Veterans Affairs

VA FORM 08-6231, OCT 1978

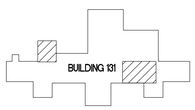
KEYED NOTES:

1. REMOVE EXISTING PUMP, INERTIA PAD, CONTROLS, DRIVES, ETC. COMPLETE.
2. REMOVE PIPE TO POINT INDICATED.
3. CONCRETE HOUSEKEEPING PAD TO REMAIN.
4. NO WORK ASSOCIATED WITH THESE PUMPS.



1 BUILDING 131 MECHANICAL DEMOLITION PLAN

SCALE: 1/4"-1'-0"



KEY PLAN

SCALE: N.T.S.

Revisions:	Date

Dept. of Veterans Affairs
James A. Lovell Federal Health Care Center
3001 Green Bay Rd.
North Chicago, IL

CONSULTANTS:

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NC License # C-1648

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FAX: (414) 258-6154

Drawing Title: BLDG 131 MECHANICAL DEMOLITION PLAN

Approved: Project Director

Project Title: Improve Chiller Plant Efficiency

Location: Lovell Federal Health Care Center,North Chicago, IL

Date: August 28, 2014

Checked By: JWM

Drawn By: EKE

100% CONSTRUCTION DOCUMENTS

Project Number: 556-14-006

Building Number: 131, 133, 133CA, 188

Drawing Number: MD102

Office of Facilities Management

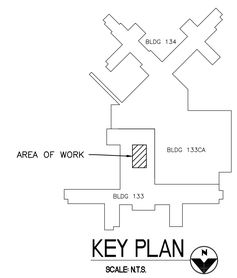
Department of Veterans Affairs

VA FORM 08-6231, OCT 1978

KEYED NOTES:

1. REMOVE EXISTING PUMP, INERTIA PAD, CONTROLS, DRIVES, ETC. COMPLETE.
2. REMOVE PIPE TO POINT INDICATED.
3. CONCRETE HOUSEKEEPING PAD TO REMAIN.
4. NO WORK ASSOCIATED WITH THIS PUMP.

1 BUILDING 133 MECHANICAL DEMOLITION PLAN
SCALE: 1/4"-1'-0"



KEY PLAN
SCALE: N.T.S.

Revisions:	Date

Dept. of Veterans Affairs
James A. Lovell Federal Health Care Center
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Drawing Title: BLDG 133 MECHANICAL DEMOLITION PLAN

Approved: Project Director

Project Title: Improve Chiller Plant Efficiency

Location: Lovell Federal Health Care Center,North Chicago, IL

Date: August 28, 2014 | Checked By: JWM | Drawn By: EKE

100% CONSTRUCTION DOCUMENTS

Project Number: 556-14-006

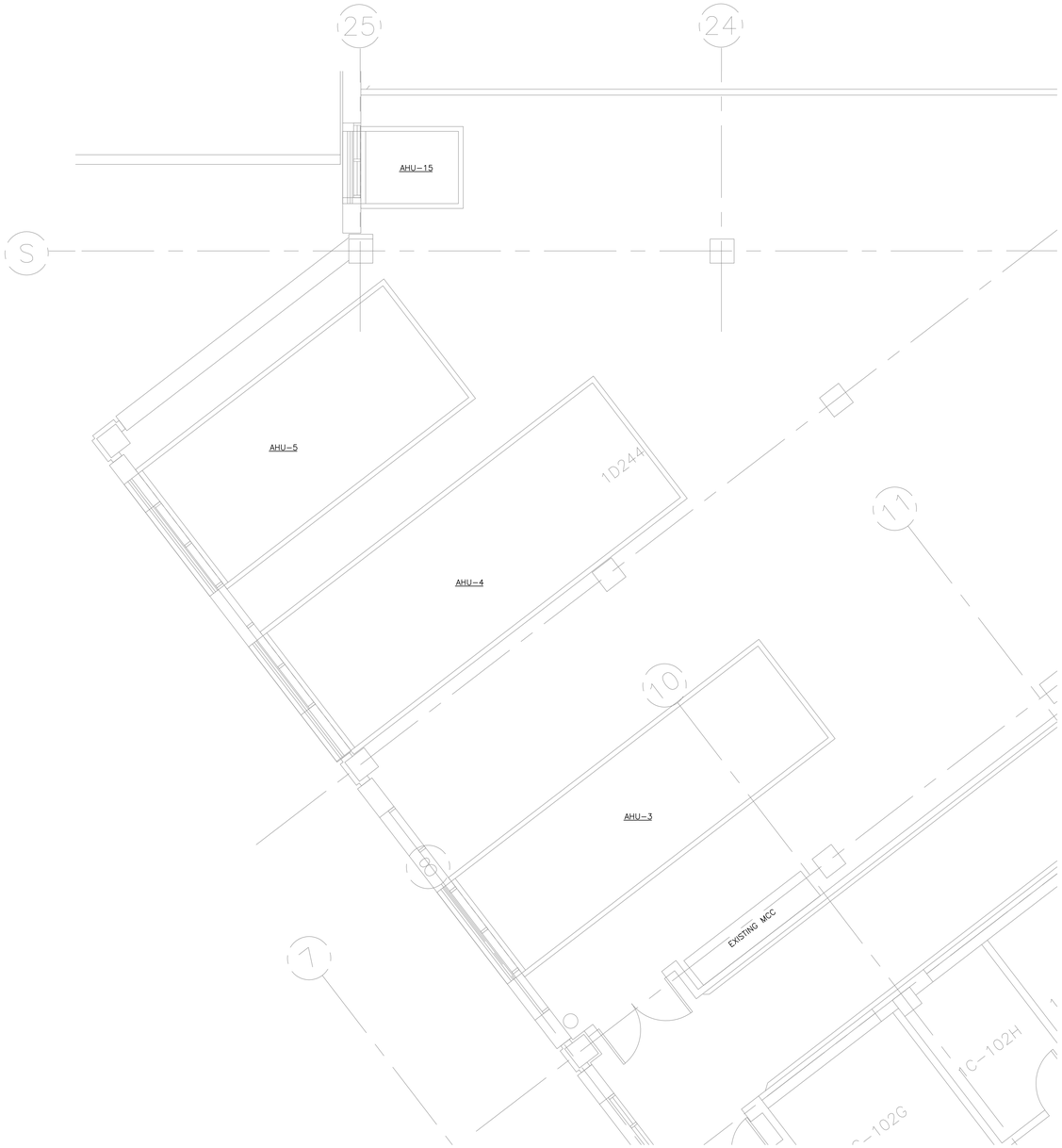
Building Number: 131, 133, 133CA, 188

Drawing Number: MD103

Office of Facilities Management

Department of Veterans Affairs

VA FORM 08-6231, OCT 1978

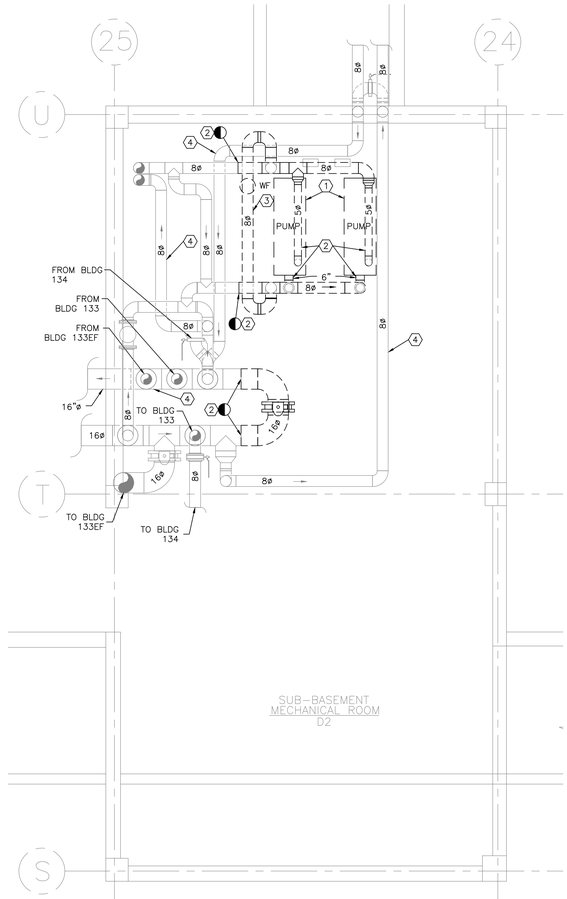


1 BUILDING 133CA ROOM 1D244 MECHANICAL DEMOLITION PLAN

SCALE: 1/4"-1'-0"

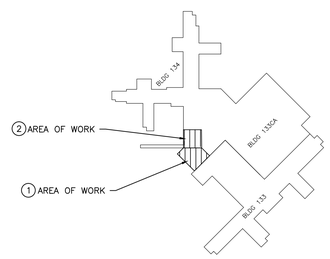
KEYED NOTES:

1. REMOVE PUMP, INERTIA PAD, CONTROLS, DRIVES, ETC. COMPLETE.
2. REMOVE PIPE TO POINT INDICATED.
3. REMOVE WATER FILTER AND ASSOCIATED PIPING.
4. EXISTING PIPING TO REMAIN.



2 BUILDING 133CA SUB BASEMENT MECHANICAL DEMOLITION PLAN

SCALE: 1/4"-1'-0"



KEY PLAN

SCALE: N.T.S.

Revisions:	Date

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FAX (414) 258-6154

Drawing Title: BLDG 133CA MECHANICAL DEMOLITION PLAN

Approved: Project Director

Project Title: Improve Chiller Plant Efficiency

Location: Lovell Federal Health Care Center,North Chicago, IL

Date: August 28, 2014

Checked By: JWM

Drawn By: EKE

100% CONSTRUCTION DOCUMENTS

Project Number: 556-14-006

Building Number: 131, 133, 133CA, 188

Drawing Number: MD104

Office of Facilities Management

Department of Veterans Affairs

VA FORM 08-6231, OCT 1978

APPENDIX A

Credentials – Illinois Certified Asbestos Inspectors

Illinois Department of
PUBLIC HEALTH

ASBESTOS PROFESSIONAL LICENSE

ID NUMBER	ISSUED	EXPIRES
100 - 18794	6/5/2014	05/15/2015

DALE C ARMBRUSTER
823 BLAINE AVE
RACINE, WI 53405

Environmental Health

Illinois Department of
PUBLIC HEALTH

ASBESTOS PROFESSIONAL LICENSE

ID NUMBER	ISSUED	EXPIRES
100 - 18793	3/18/2014	05/15/2015

THOMAS J MCCOY, JR
809 BUENA VISTA AVENUE
WAUKESHA, WI 53188

Environmental Health

APPENDIX B

Certificates of Analysis
And
Chains of Custody

Building 131
Certificate of Analysis
And
Chain of Custody

iATL INTERNATIONAL
Asbestos Testing Laboratories

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: Sigma Environmental Services
1300 West Canal Street
Milwaukee WI 53233

Report Date: 7/29/2014
Report No: 340866
Project: Building 131
Project No.: 14786-131

BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 5382624 **Description / Location:** Black/Yellow Foam Insulation/Mastic
Client No.: 01 S

% Asbestos	Type	% Non-Asbestos Fibrous Material	Type	% Non-Fibrous Material
None Detected	None Detected	None Detected	None Detected	100

Lab No.: 5382625 **Description / Location:** Black/Tan Foam Insulation/Mastic
Client No.: 02 C

% Asbestos	Type	% Non-Asbestos Fibrous Material	Type	% Non-Fibrous Material
None Detected	None Detected	None Detected	None Detected	100

Lab No.: 5382626 **Description / Location:** Black Foam Insulation
Client No.: 03 C

% Asbestos	Type	% Non-Asbestos Fibrous Material	Type	% Non-Fibrous Material
None Detected	None Detected	None Detected	None Detected	100

Lab No.: 5382627 **Description / Location:** White/Silver Wrap
Client No.: 04 S

% Asbestos	Type	% Non-Asbestos Fibrous Material	Type	% Non-Fibrous Material
None Detected	None Detected	90	Cellulose	5
		5	Fibrous Glass	

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

Analytical Method: US EPA 600/R-93/116 by Polarized Light Microscopy, (ELAP 198.1 where applicable)

Comments: Quantification at <0.25% by volume is possible with this method. (PC) Indicates Stratified Point Count Method performed. (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 (ex. analyze until positive instructions). Small asbestos fibers may be missed by PLM due to resolution limitations of the optical microscope. Therefore, PLM is not consistently reliable in detecting asbestos in non-friable organically bound (NOB) materials. Quantitative transmission electron microscopy (TEM) is currently the only method that can pronounce materials as non-asbestos containing.

Analysis Performed By: M. Mirza

Approved By: Frank E. Ehrenfeld, III
Laboratory Director

Date: 7/29/2014

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Asbestos Testing Laboratories

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Mount Laurel, NJ 08054
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Local: 856-231-9449
Fax: 856-231-9818

CERTIFICATE OF ANALYSIS

Client: Sigma Environmental Services
1300 West Canal Street
Milwaukee WI 53233

Report Date: 7/29/2014
Report No: 340866
Project: Building 131
Project No.: 14786-131

BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 5382628 **Description / Location:** White/Silver Wrap
Client No.: 05 S

% Asbestos	Type	% Non-Asbestos Fibrous Material	Type	% Non-Fibrous Material
None Detected	None Detected	90	Cellulose	5
		5	Fibrous Glass	

Lab No.: 5382629 **Description / Location:** White/Silver Wrap
Client No.: 06 C

% Asbestos	Type	% Non-Asbestos Fibrous Material	Type	% Non-Fibrous Material
None Detected	None Detected	90	Cellulose	5
		5	Fibrous Glass	

Lab No.: 5382630 **Description / Location:** Lt Grey Insulation
Client No.: 07 SE

% Asbestos	Type	% Non-Asbestos Fibrous Material	Type	% Non-Fibrous Material
None Detected	None Detected	95	Fibrous Glass	5

Lab No.: 5382631 **Description / Location:** Lt Grey Insulation
Client No.: 08 SE

% Asbestos	Type	% Non-Asbestos Fibrous Material	Type	% Non-Fibrous Material
None Detected	None Detected	95	Fibrous Glass	5

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

Analytical Method: US EPA 600/R-93/116 by Polarized Light Microscopy, (ELAP 198.1 where applicable)

Comments: Quantification at <0.25% by volume is possible with this method. (PC) Indicates Stratified Point Count Method performed. (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 (ex. analyze until positive instructions). Small asbestos fibers may be missed by PLM due to resolution limitations of the optical microscope. Therefore, PLM is not consistently reliable in detecting asbestos in non-friable organically bound (NOB) materials. Quantitative transmission electron microscopy (TEM) is currently the only method that can pronounce materials as non-asbestos containing.

Analysis Performed By: M. Mirza

Date: 7/29/2014

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Asbestos Testing Laboratories

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Local: 856-231-9449
Fax: 856-231-9818

CERTIFICATE OF ANALYSIS

Client: Sigma Environmental Services
1300 West Canal Street
Milwaukee WI 53233

Report Date: 7/29/2014
Report No: 340866
Project: Building 131
Project No.: 14786-131

BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 5382632
Client No.: 09
Description / Location: Lt Grey Insulation
SE

% Asbestos	Type	% Non-Asbestos Fibrous Material	Type	% Non-Fibrous Material
None Detected	None Detected	95	Fibrous Glass	5

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

Analytical Method: US EPA 600/R-93/116 by Polarized Light Microscopy, (ELAP 198.1 where applicable)

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Analysis Performed By: M. Mirza

Date: 7/29/2014

International Asbestos Testing Laboratories
9000 Commerce Parkway, Suite B
Mt. Laurel, New Jersey 08054

Tel. 856 231-9449
Fax 856 231-9818

- Chain of Custody -

Client: Sigma Environmental Services, Inc.
1300 West Canal Street
Milwaukee, Wisconsin
Phone: (414) 643-4200
FAX: (414) 643-4210

Project Name:
Project No.: #14786-131
Contact: Jeff Senn
~~Pager~~: 414-643-4151

Special:
Instructions:

Type:

Asbestos		Lead		Other
[ ] Air	[ ] Soil	[ ] Air	[ ] Soil	
[X] Bulk	[ ] Dust	[ ] Bulk	[ ] Dust	
[ ] Water	[ ] Other	[ ] Water	[ ] Other	

Analysis Method:

- [ ] PCM: NIOSH 7400
- [ ] PCM: OSHA
- [ ] PCM: Other
- [ ] AAS: NIOSH 7082 (Air)
- [ ] AAS: Lead in Drinking Water
- [ ] AAS: Lead in Paint ASTM D3335-85a
- [ ] AAS: Lead Dust/Wipe
- [ ] AAS: Other Metals/Soil
- [X] PLM: Bulk Asbestos EPA 600
- [X] PLM: Point Counting 198.1
- [ ] PLM: NOB via 198.1 (PLM only)
- [ ] If <1% by PLM, to TEM via 198.4 to meet NYSDOH requirements** (** call to confirm TAT!)
- [ ] TEM: AHERA
- [ ] TEM: NIOSH 7402
- [ ] TEM: EPA Level II
- [ ] TEM: Microvac/Wipe
- [ ] TEM: Asbestos in Water
- [ ] TEM: Bulk Analysis
- [ ] TEM: NOB 198.4
- [ ] TEM: Other
- [ ] Total Dust: NIOSH 0500

Turnaround Time:

FAX: _____ date / time
Verbals: _____ date / time

- [ ] 10 Day
- [ ] 5 Day
- [X] 3 Day
- [ ] 2 Day
- [ ] 1 Day
- [ ] 6 Hour
- [ ] RUSH

Preliminary FAX / Verbal Results Requested by:

E-MAILED Date 7-30-14

Sample Numbers:

Client #(s): 01 (start) - 09 (end) Total: 9
IATL #(s): _____ (start) - _____ (end)

Chain of Custody:

Relinquished:	[signature]	Date: 7/24/14	Time: 5:15
Received:		Date:	Time:
Sample Log-in:	7/28/14	Date:	Time:
Sample Prep:		Date:	Time:
Analyzed:	MM	Date: 7/29/14	Time:
QA/QC Review:	AA (R) 7/30/14	Date: IATL - By	Time:

RECEIVED JUL 25 2014

Archived/Released: _____ Date: _____
QA/QC InterLAB Use: _____ Time: _____

Project: 14786-131

Sigma Sample Material List

Page 1 of 1

Building: 131

Date: 7/23/14

Inspectors: DCA, TM

Sample Number	Homogenous Material Code	Homogeneous Material Description	Functional Area/ Room Number	Location within Room
01	MIM	Rubber Insulation Mastic	5382624	S
02	"	"	5382625	C
03	"	"	5382626	C
04	MFPW	Fiberglass Ins. Paper Wrap	5382627	S
05	"	"	5382628	S
06	"	"	5382629	C
07	MSOI	Grey Spray On Insulation	5382630	SE
08	"	"	5382631	SE
09	"	"	5382632	SE
10				
11				
12				
13				
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15				
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Building 133
Certificate of Analysis
And
Chain of Custody

iATL INTERNATIONAL
Asbestos Testing Laboratories

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: Sigma Environmental Services
1300 West Canal Street
Milwaukee WI 53233

Report Date: 7/29/2014
Report No: 340865
Project: Building 133
Project No.: 14786-133

BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 5382633 **Description / Location:** Black/Off-White Foam Insulation/Mastic
Client No.: 01 N

% Asbestos	Type	% Non-Asbestos Fibrous Material	Type	% Non-Fibrous Material
None Detected	None Detected	None Detected	None Detected	100

Lab No.: 5382634 **Description / Location:** Black/Blue Foam Insulation/Mastic
Client No.: 02 N

% Asbestos	Type	% Non-Asbestos Fibrous Material	Type	% Non-Fibrous Material
None Detected	None Detected	None Detected	None Detected	100

Lab No.: 5382635 **Description / Location:** Black/Off-White Foam Insulation/Mastic
Client No.: 03 N

% Asbestos	Type	% Non-Asbestos Fibrous Material	Type	% Non-Fibrous Material
None Detected	None Detected	None Detected	None Detected	100

Lab No.: 5382636 **Description / Location:** White/Silver Wrap
Client No.: 04 N

% Asbestos	Type	% Non-Asbestos Fibrous Material	Type	% Non-Fibrous Material
None Detected	None Detected	90	Cellulose	5
		5	Fibrous Glass	

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

Analytical Method: US EPA 600/R-93/116 by Polarized Light Microscopy, (ELAP 198.1 where applicable)

Comments: Quantification at <0.25% by volume is possible with this method. (PC) Indicates Stratified Point Count Method performed. (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 (ex. analyze until positive instructions). Small asbestos fibers may be missed by PLM due to resolution limitations of the optical microscope. Therefore, PLM is not consistently reliable in detecting asbestos in non-friable organically bound (NOB) materials. Quantitative transmission electron microscopy (TEM) is currently the only method that can pronounce materials as non-asbestos containing.

Analysis Performed By: M. Mirza

Approved By: Frank E. Ehrenfeld, III
Laboratory Director

Date: 7/29/2014

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Asbestos Testing Laboratories

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: Sigma Environmental Services
1300 West Canal Street
Milwaukee WI 53233

Report Date: 7/29/2014
Report No: 340865
Project: Building 133
Project No.: 14786-133

BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 5382637 **Description / Location:** White/Silver Wrap
Client No.: 05 N

% Asbestos	Type	% Non-Asbestos Fibrous Material	Type	% Non-Fibrous Material
None Detected	None Detected	90	Cellulose	5
		5	Fibrous Glass	

Lab No.: 5382638 **Description / Location:** White/Silver Wrap/Mastic
Client No.: 06 N

% Asbestos	Type	% Non-Asbestos Fibrous Material	Type	% Non-Fibrous Material
None Detected	None Detected	90	Cellulose	5
		5	Fibrous Glass	

Lab No.: 5382639 **Description / Location:** Lt Grey Insulation
Client No.: 07 NW

% Asbestos	Type	% Non-Asbestos Fibrous Material	Type	% Non-Fibrous Material
None Detected	None Detected	98	Fibrous Glass	2

Lab No.: 5382640 **Description / Location:** Lt Grey Insulation
Client No.: 08 NW

% Asbestos	Type	% Non-Asbestos Fibrous Material	Type	% Non-Fibrous Material
None Detected	None Detected	98	Fibrous Glass	2

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

Analytical Method: US EPA 600/R-93/116 by Polarized Light Microscopy, (ELAP 198.1 where applicable)

Comments: Quantification at <0.25% by volume is possible with this method. (PC) Indicates Stratified Point Count Method performed. (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 (ex. analyze until positive instructions). Small asbestos fibers may be missed by PLM due to resolution limitations of the optical microscope. Therefore, PLM is not consistently reliable in detecting asbestos in non-friable organically bound (NOB) materials. Quantitative transmission electron microscopy (TEM) is currently the only method that can pronounce materials as non-asbestos containing.

Analysis Performed By: M. Mirza

Date: 7/29/2014

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Asbestos Testing Laboratories

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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: Sigma Environmental Services
1300 West Canal Street
Milwaukee WI 53233

Report Date: 7/29/2014
Report No: 340865
Project: Building 133
Project No.: 14786-133

BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 5382641
Client No.: 09
Description / Location: Lt Grey Insulation
NW

% Asbestos	Type	% Non-Asbestos Fibrous Material	Type	% Non-Fibrous Material
None Detected	None Detected	98	Fibrous Glass	2

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

Analytical Method: US EPA 600/R-93/116 by Polarized Light Microscopy, (ELAP 198.1 where applicable)

Comments: Quantification at <0.25% by volume is possible with this method. (PC) Indicates Stratified Point Count Method performed. (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 (ex. analyze until positive instructions). Small asbestos fibers may be missed by PLM due to resolution limitations of the optical microscope. Therefore, PLM is not consistently reliable in detecting asbestos in non-friable organically bound (NOB) materials. Quantitative transmission electron microscopy (TEM) is currently the only method that can pronounce materials as non-asbestos containing.

Analysis Performed By: M. Mirza

Date: 7/29/2014

International Asbestos Testing Laboratories
9000 Commerce Parkway, Suite B
Mt. Laurel, New Jersey 08054

Tel. 856 231-9449
Fax 856 231-9818

- Chain of Custody -

Client: Sigma Environmental Services, Inc.
1300 West Canal Street
Milwaukee, Wisconsin
Phone: (414) 643-4200
FAX: (414) 643-4210

Project Name:
Project No.: #14786-133
Contact: Jeff Senn
Pager: 414-643-4151

Special:
Instructions:

Type:

Asbestos		Lead		Other
[ ] Air	[ ] Soil	[ ] Air	[ ] Soil	
[X] Bulk	[ ] Dust	[ ] Bulk	[ ] Dust	
[ ] Water	[ ] Other	[ ] Water	[ ] Other	

Analysis Method:

- [ ] PCM: NIOSH 7400
- [ ] PCM: OSHA
- [ ] PCM: Other
- [ ] AAS: NIOSH 7082 (Air)
- [ ] AAS: Lead in Drinking Water
- [ ] AAS: Lead in Paint ASTM D3335-85a
- [ ] AAS: Lead Dust/Wipe
- [ ] AAS: Other Metals/Soil
- [X] PLM: Bulk Asbestos EPA 600
- [X] PLM: Point Counting 198.1
- [ ] PLM: NOB via 198.1 (PLM only)
- [ ] If <1% by PLM, to TEM via 198.4 to meet NYSDOH requirements** (** call to confirm TAT!)
- [ ] TEM: AHERA
- [ ] TEM: NIOSH 7402
- [ ] TEM: EPA Level II
- [ ] TEM: Microvac/Wipe
- [ ] TEM: Asbestos in Water
- [ ] TEM: Bulk Analysis
- [ ] TEM: NOB 198.4
- [ ] TEM: Other
- [ ] Total Dust: NIOSH 0500

Turnaround Time:

FAX: _____ (date / time) **Verbals:** _____ (date / time)

- [ ] 10 Day
- [ ] 5 Day
- [X] 3 Day
- [ ] 2 Day
- [ ] 1 Day
- [ ] 6 Hour
- [ ] RUSH

Preliminary FAX / Verbal Results Requested by:

E-MAILED 7-30

Sample Numbers:

Client #(s): 01 (start) - 09 (end)
IATL #(s): _____ (start) - _____ (end) Total: 9

Chain of Custody:

Relinquished:	[signature]	Date: 7/25/14	Time: 15:15
Received:		Date:	Time:
Sample Log-in:	MM 7/28/14	Date:	Time:
Sample Prep:		Date: JUL 25 2014	Time:
Analyzed:	MM 7/29/14	Date:	Time:
QA/QC Review:	WAR 7/30/14	Date:	Time:

RECEIVED
IATL - By

Archived/Released: _____ Date: _____
QA/QC InterLAB Use: _____ Time: _____

Sigma Sample Material List

Project: 14786-133 Date: 7-23-14

Building: 133 Inspectors: DKA, JTM

Sample Number	Homogenous Material Code	Homogeneous Material Description	Functional Area/ Room Number	Location within Room
01	MTM	Black Rubber Ins. Mastic	5382633	N
02			5382634	N
03			5382635	N
04	MFPW	Fiberglass Ins. Paper Wrap	5382636	N
05			5382637	N
06			5382638	N
07	MSOI	Grey Spray on Insulation	5382639	NW
08			5382640	NW
09				NW
10			5382641	
11				
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Building 133CA
Certificate of Analysis
And
Chain of Custody

iATL INTERNATIONAL
ASBESTOS TESTING LABORATORIES

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: Sigma Environmental Services
1300 West Canal Street
Milwaukee WI 53233

Report Date: 7/30/2014
Report No: 340863
Project:
Project No.: 14786-133CA

BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 5382648 **Description / Location:** Black Non-Fibrous
Client No.: 1

% Asbestos	Type	% Non-Asbestos Fibrous Material	Type	% Non-Fibrous Material
None Detected	None Detected	None Detected	None Detected	100

Lab No.: 5382649 **Description / Location:** Black Non-Fibrous
Client No.: 2

% Asbestos	Type	% Non-Asbestos Fibrous Material	Type	% Non-Fibrous Material
None Detected	None Detected	None Detected	None Detected	100

Lab No.: 5382650 **Description / Location:** Black Non-Fibrous
Client No.: 3

% Asbestos	Type	% Non-Asbestos Fibrous Material	Type	% Non-Fibrous Material
None Detected	None Detected	None Detected	None Detected	100

Lab No.: 5382651 **Description / Location:** Silver/Tan Wrap
Client No.: 4

% Asbestos	Type	% Non-Asbestos Fibrous Material	Type	% Non-Fibrous Material
None Detected	None Detected	80	Cellulose	10
		10	Mineral Wool	

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

Analytical Method: US EPA 600/R-93/116 by Polarized Light Microscopy, (ELAP 198.1 where applicable)

Comments: Quantification at <0.25% by volume is possible with this method. (PC) Indicates Stratified Point Count Method performed. (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 (ex. analyze until positive instructions). Small asbestos fibers may be missed by PLM due to resolution limitations of the optical microscope. Therefore, PLM is not consistently reliable in detecting asbestos in non-friable organically bound (NOB) materials. Quantitative transmission electron microscopy (TEM) is currently the only method that can pronounce materials as non-asbestos containing.

Analysis Performed By: V. Smith

Approved By: Frank E. Ehrenfeld, III
Laboratory Director

Date: 7/30/2014

iATL INTERNATIONAL
Asbestos Testing Laboratories

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: Sigma Environmental Services
1300 West Canal Street
Milwaukee WI 53233

Report Date: 7/30/2014
Report No: 340863
Project:
Project No.: 14786-133CA

BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 5382652 **Description / Location:** Silver/Tan Wrap
Client No.: 5

% Asbestos	Type	% Non-Asbestos Fibrous Material	Type	% Non-Fibrous Material
None Detected	None Detected	75	Cellulose	10
		15	Mineral Wool	

Lab No.: 5382653 **Description / Location:** Silver/Tan Wrap
Client No.: 6

% Asbestos	Type	% Non-Asbestos Fibrous Material	Type	% Non-Fibrous Material
None Detected	None Detected	75	Cellulose	10
		15	Mineral Wool	

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

Analytical Method: US EPA 600/R-93/116 by Polarized Light Microscopy, (ELAP 198.1 where applicable)

Comments: Quantification at <0.25% by volume is possible with this method. (PC) Indicates Stratified Point Count Method performed. (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 (ex. analyze until positive instructions). Small asbestos fibers may be missed by PLM due to resolution limitations of the optical microscope. Therefore, PLM is not consistently reliable in detecting asbestos in non-friable organically bound (NOB) materials. Quantitative transmission electron microscopy (TEM) is currently the only method that can pronounce materials as non-asbestos containing.

Analysis Performed By: V. Smith

Date: 7/30/2014

International Asbestos Testing Laboratories
9000 Commerce Parkway, Suite B
Mt. Laurel, New Jersey 08054

Tel. 856 231-9449
Fax 856 231-9818

- Chain of Custody -

Client:	Sigma Environmental Services, Inc.	**Project Name:**	
	1300 West Canal Street	**Project No.:**	#14786-133CA
	Milwaukee, Wisconsin		
Phone:	(414) 643-4200	**Contact:**	Jeff Senn
FAX:	(414) 643-4210	**~~Pager~~:**	414-643-4151

Special:

Instructions:

Type:

Asbestos		Lead		Other
[ ] Air	[ ] Soil	[ ] Air	[ ] Soil	
[X] Bulk	[ ] Dust	[ ] Bulk	[ ] Dust	
[ ] Water	[ ] Other	[ ] Water	[ ] Other	

Analysis Method:

[ ] PCM: NIOSH 7400	[X] PLM: Bulk Asbestos EPA 600	[ ] TEM: AHERA
[ ] PCM: OSHA	[X] PLM: Point Counting 198.1	[ ] TEM: NIOSH 7402
[ ] PCM: Other ____	[ ] PLM: NOB via 198.1 (PLM only)	[ ] TEM: EPA Level II
	[ ] If <1% by PLM, to TEM via 198.4	[ ] TEM: Microvac/Wipe
[ ] AAS: NIOSH 7082 (Air)	to meet NYSDOH requirements**	[ ] TEM: Asbestos in Water
[ ] AAS: Lead in Drinking Water	(** call to confirm TAT!)	[ ] TEM: Bulk Analysis
[ ] AAS: Lead in Paint ASTM D3335-85a		[ ] TEM: NOB 198.4
[ ] AAS: Lead Dust/Wipe		[ ] TEM: Other ____
[ ] AAS: Other Metals/Soil ____		[ ] Total Dust: NIOSH 0500

Turnaround Time:

FAX: _____ (date / time) **Verbals:** _____ (date / time)

[ ] 10 Day	[X] 3 Day	[ ] 1 Day	[ ] RUSH
[ ] 5 Day	[ ] 2 Day	[ ] 6 Hour	

Preliminary FAX / Verbal Results Requested by:

E-MAIL SENT TO JEFF 7-30-14

Sample Numbers:

Client #(s): 01 (start) - 06 (end)

IATL #(s): _____ (start) - _____ (end) Total: 6

Chain of Custody:

RECEIVED JUL 25 2014

Relinquished:	[signature]	Date: 7/24/14	Time: 15:15
Received:		Date:	Time:
Sample Log-in:	MZ 7/28/14	Date:	Time:
Sample Prep:		Date:	Time:
Analyzed:	VDS 7/30/14	Date:	Time:
QA/QC Review:	[signature] 7-30-14	Date: IATL - By	Time:

Archived/Released: _____ Date: _____

QA/QC InterLAB Use: _____ Time: _____

S:\asbestos\COC\IATL COC

SIGMA ENVIRONMENTAL SERVICES, INC.
1300 West Canal Street
Milwaukee, Wisconsin 53233

Supplemental Asbestos Chain of Custody

Project Number: #14786-133CA

Number of Samples: 6

In addition to the information provided on the laboratory chain of custody, Sigma requires the following (checked items only):

☒ When the laboratory observes an apparent discrepancy between Sigma's material description and the sample received by the laboratory, the laboratory shall flag the material description on the laboratory report and define on the laboratory report the specific discrepancy(s) noted.

☐ **With the exception of drywall and joint compound samples**, analyze and report each distinct and separable material layer unless otherwise instructed on the attached "Sigma Sample Material List" sheet(s). Laboratory to determine distinct and separable layers and provide layer descriptions for each individual layer.

☒ Analyze and report each distinct and separable material layer unless otherwise instructed on the attached "Sigma Sample Material List" sheet(s). Laboratory to determine distinct and separable layers and provide layer descriptions for each individual layer.

☐ Discontinue analysis of homogenous material upon determining that the material contains greater than one percent asbestos content. If the homogeneous material contains multiple layers, continue analysis of each layer until all samples have been analyzed or until it has been determined that the layer contains greater than one percent asbestos content. See item #4 for flooring system Positive Stop instructions.

For example, if Sigma submitted three roofing system samples and the top layer sample analysis revealed asbestos is present at greater than one percent, the top layer analysis would be discontinued but the underlying layer(s) analysis would continue until greater than one percent asbestos is detected or until all three underlying sample layers have been analyzed. This assumes, however, that the materials are in fact homogenous. Through microscopic examination, it may be determined by the analyst that there are additional layers not present in each sample. In that case, the individual sample layer should also be analyzed.

☐ **Flooring Systems (including floor tile systems, vinyl flooring systems, vinyl laminate systems, and stair tread systems): Conduct analysis of the mastic layer(s) first. If analysis reveals greater than one percent asbestos content, discontinue analysis of the mastic layers and do not analyze the flooring material (tile, vinyl, laminate, etc.) Call Jeff Senn at (414) 643-4151 with specific questions.**

Sigma Sample Material List

Project: 14786-133cA
Building: 133CA
Date: 7-23-14
Inspectors: DCA, TM

Sample Number	Picture Number	Homogenous Material Code	Homogeneous Material Description	Functional Area/ Room Number	Location within Room
01		MIM	Black Rubber Ins. Mastic	5382648	S
02		"	"	5382649	S
03		"	"	5382650	S
04		M7PW	Fiberglass Ins. Paper Wrap	5382651	S
05		"	"	5382652	S
06		"	"	5382653	S
07					
08					
09					
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Building 188
Certificate of Analysis
And
Chain of Custody

iATL INTERNATIONAL
Asbestos Testing Laboratories

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Fax: 856-231-9818

CERTIFICATE OF ANALYSIS

Client: Sigma Environmental Services
1300 West Canal Street
Milwaukee WI 53233

Report Date: 7/30/2014
Report No: 340864
Project: Building 188
Project No.: 14786-188

BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 5382642 **Description / Location:** Black Non Fibrous
Client No.: 1 10" Block Fitting; Room 1; W

% Asbestos	Type	% Non-Asbestos Fibrous Material	Type	% Non-Fibrous Material
None Detected	None Detected	None Detected	None Detected	100

Lab No.: 5382643 **Description / Location:** Black Non Fibrous
Client No.: 2 10" Block Fitting; Room 1; SW

% Asbestos	Type	% Non-Asbestos Fibrous Material	Type	% Non-Fibrous Material
None Detected	None Detected	None Detected	None Detected	100

Lab No.: 5382644 **Description / Location:** Black Non Fibrous
Client No.: 3 10" Block Fitting; Room 1; N

% Asbestos	Type	% Non-Asbestos Fibrous Material	Type	% Non-Fibrous Material
None Detected	None Detected	None Detected	None Detected	100

Lab No.: 5382645 **Description / Location:** Silver/Tan Wrap
Client No.: 4 Room 1; S

% Asbestos	Type	% Non-Asbestos Fibrous Material	Type	% Non-Fibrous Material
None Detected	None Detected	70	Cellulose	10
		20	Mineral Wool	

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

Analytical Method: US EPA 600/R-93/116 by Polarized Light Microscopy, (ELAP 198.1 where applicable)

Comments: Quantification at <0.25% by volume is possible with this method. (PC) Indicates Stratified Point Count Method performed. (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 (ex. analyze until positive instructions). Small asbestos fibers may be missed by PLM due to resolution limitations of the optical microscope. Therefore, PLM is not consistently reliable in detecting asbestos in non-friable organically bound (NOB) materials. Quantitative transmission electron microscopy (TEM) is currently the only method that can pronounce materials as non-asbestos containing.

Analysis Performed By: V. Smith

Approved By: Frank E. Ehrenfeld, III
Laboratory Director

Date: 7/30/2014

iATL INTERNATIONAL
Asbestos Testing Laboratories

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

CERTIFICATE OF ANALYSIS

Client: Sigma Environmental Services
1300 West Canal Street
Milwaukee WI 53233

Report Date: 7/30/2014
Report No: 340864
Project: Building 188
Project No.: 14786-188

BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 5382646 **Description / Location:** Silver/Blue Wrap
Client No.: 5 Room 1; SE

% Asbestos	Type	% Non-Asbestos Fibrous Material	Type	% Non-Fibrous Material
None Detected	None Detected	40	Cellulose	45
		15	Mineral Wool	

Lab No.: 5382647 **Description / Location:** Silver/Blue Wrap
Client No.: 6 Room 1; NE

% Asbestos	Type	% Non-Asbestos Fibrous Material	Type	% Non-Fibrous Material
None Detected	None Detected	40	Cellulose	45
		15	Mineral Wool	

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

Analytical Method: US EPA 600/R-93/116 by Polarized Light Microscopy, (ELAP 198.1 where applicable)

Comments: Quantification at <0.25% by volume is possible with this method. (PC) Indicates Stratified Point Count Method performed. (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 (ex. analyze until positive instructions). Small asbestos fibers may be missed by PLM due to resolution limitations of the optical microscope. Therefore, PLM is not consistently reliable in detecting asbestos in non-friable organically bound (NOB) materials. Quantitative transmission electron microscopy (TEM) is currently the only method that can pronounce materials as non-asbestos containing.

Analysis Performed By: V. Smith

Date: 7/30/2014

International Asbestos Testing Laboratories
9000 Commerce Parkway, Suite B
Mt. Laurel, New Jersey 08054

Tel. 856 231-9449
Fax 856 231-9818

- Chain of Custody -

Client: Sigma Environmental Services, Inc.
1300 West Canal Street
Milwaukee, Wisconsin
Phone: (414) 643-4200
FAX: (414) 643-4210

Project Name:
Project No.: #14786-188
Contact: Jeff Senn
~~**Pager:**~~ 414-643-4151

Special:
Instructions:

Type:

Asbestos		Lead		Other
[ ] Air	[ ] Soil	[ ] Air	[ ] Soil	
[X] Bulk	[ ] Dust	[ ] Bulk	[ ] Dust	
[ ] Water	[ ] Other	[ ] Water	[ ] Other	

Analysis Method:

- [ ] PCM: NIOSH 7400
- [ ] PCM: OSHA
- [ ] PCM: Other
- [ ] AAS: NIOSH 7082 (Air)
- [ ] AAS: Lead in Drinking Water
- [ ] AAS: Lead in Paint ASTM D3335-85a
- [ ] AAS: Lead Dust/Wipe
- [ ] AAS: Other Metals/Soil
- [X] PLM: Bulk Asbestos EPA 600
- [X] PLM: Point Counting 198.1
- [ ] PLM: NOB via 198.1 (PLM only)
- [ ] If <1% by PLM, to TEM via 198.4 to meet NYSDOH requirements** (** call to confirm TAT!)
- [ ] TEM: AHERA
- [ ] TEM: NIOSH 7402
- [ ] TEM: EPA Level II
- [ ] TEM: Microvac/Wipe
- [ ] TEM: Asbestos in Water
- [ ] TEM: Bulk Analysis
- [ ] TEM: NOB 198.4
- [ ] TEM: Other
- [ ] Total Dust: NIOSH 0500

Turnaround Time:

FAX: _____ (date / time) **Verbals:** _____ (date / time)

- [ ] 10 Day
- [ ] 5 Day
- [X] 3 Day
- [ ] 2 Day
- [ ] 1 Day
- [ ] 6 Hour
- [ ] RUSH

Preliminary FAX / Verbal Results Requested by:

Sample Numbers:

Client #(s): 01 (start) - 06 (end)
IATL #(s): _____ (start) - _____ (end) Total: 6

E-MAILED 7-30-14

Chain of Custody:

Relinquished:	[signature]	Date: 7/24/14	Time: 5:15
Received:		Date:	Time:
Sample Log-in:	7/28/14	Date:	Time:
Sample Prep:		Date:	Time:
Analyzed:	MS 7/30/14	Date:	Time:
QA/QC Review:	AA 7/31/14	Date:	Time:

RECEIVED JUL 2 2014 IATL - By

Archived/Released: _____ Date: _____
QA/QC InterLAB Use: _____ Time: _____

SIGMA ENVIRONMENTAL SERVICES, INC.
1300 West Canal Street
Milwaukee, Wisconsin 53233

Supplemental Asbestos Chain of Custody

Project Number: #14786-188

Number of Samples: _____

In addition to the information provided on the laboratory chain of custody, Sigma requires the following (checked items only):

☒ When the laboratory observes an apparent discrepancy between Sigma's material description and the sample received by the laboratory, the laboratory shall flag the material description on the laboratory report and define on the laboratory report the specific discrepancy(s) noted.

☐ **With the exception of drywall and joint compound samples,** analyze and report each distinct and separable material layer unless otherwise instructed on the attached "Sigma Sample Material List" sheet(s). Laboratory to determine distinct and separable layers and provide layer descriptions for each individual layer.

☑ Analyze and report each distinct and separable material layer unless otherwise instructed on the attached "Sigma Sample Material List" sheet(s). Laboratory to determine distinct and separable layers and provide layer descriptions for each individual layer.

☐ Discontinue analysis of homogenous material upon determining that the material contains greater than one percent asbestos content. If the homogeneous material contains multiple layers, continue analysis of each layer until all samples have been analyzed or until it has been determined that the layer contains greater than one percent asbestos content. See item #4 for flooring system Positive Stop instructions.

For example, if Sigma submitted three roofing system samples and the top layer sample analysis revealed asbestos is present at greater than one percent, the top layer analysis would be discontinued but the underlying layer(s) analysis would continue until greater than one percent asbestos is detected or until all three underlying sample layers have been analyzed. This assumes, however, that the materials are in fact homogenous. Through microscopic examination, it may be determined by the analyst that there are additional layers not present in each sample. In that case, the individual sample layer should also be analyzed.

☐ **Flooring Systems (including floor tile systems, vinyl flooring systems, vinyl laminate systems, and stair tread systems): Conduct analysis of the mastic layer(s) first. If analysis reveals greater than one percent asbestos content, discontinue analysis of the mastic layers and do not analyze the flooring material (tile, vinyl, laminate, etc.) Call Jeff Senn at (414) 643-4151 with specific questions.**

Sigma Sample Material List

Project: 14786-188 Date: 7-23-14

Building: 188 Inspectors: DCA, TM

Sample Number	Homogenous Material Code	Homogeneous Material Description	Functional Area/ Room Number	Location within Room	
01	TSBF	10" Stink Block Fitting	1	W	5382642
02				SW	5382643
03				N	5382644
04	TFPW	Thermal Fiberglass Paper Wrap	1	S	5382645
05				SE	5382646
06				NE	5382647
07					
08					
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11					
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APPENDIX C

Photo Documentation

Building 131
Material Sample Photos

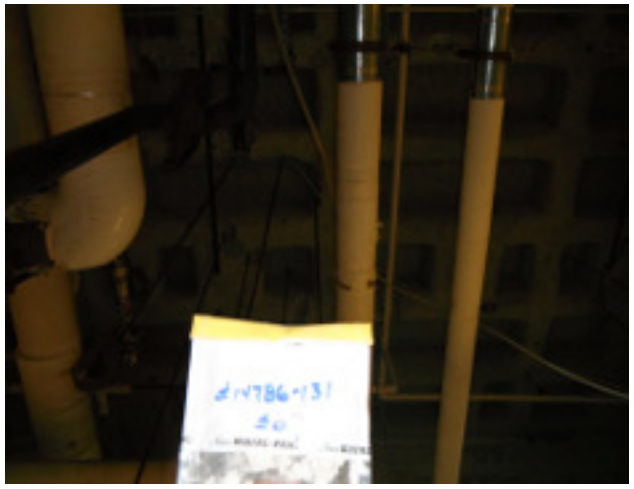






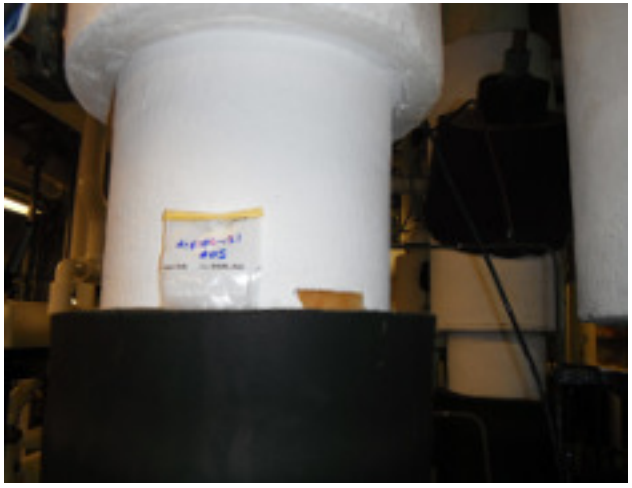



H.P. RET.




H.P. RET.


H.P. RET.




H.P. RET.

Building 133
Material Sample Photos










CH. W. RET.
CH. W. SUP.


CH. W. SUP.

Building 133CA
Material Sample Photos


#03


WF-1


#1478-133CA

Building 188
Material Sample Photos


#14786-188
#03


CHILLED


#14786-188
#01


#14786-188
#04


#14786-188
#02