

ASBESTOS MATERIALS SURVEY

Report Date: August 15, 2013

Client: Ann Arbor Housing Commission

Site Address: 1020-1042 Pennsylvania Avenue
Ann Arbor, Michigan

AKT Peerless Project #: 8359e-7-190

SECTION I - ASBESTOS INSPECTION

AKT Peerless conducted field sampling for suspect asbestos containing materials on August 13, 2013.

The following suspect materials were identified at the site:

SUSPECT MATERIALS SUMMARY (ASBESTOS MATERIALS IN BOLD CAPS)

Material Description	Material Classification	Function Space (FS) Location	HA No.	Approximate Quantity	EPA Category	Asbestos Content
Units 1040 and 1042						
12" Off white with tan streaks floor tile	MM	Throughout Unit 1040 and in southwest and southeast bedrooms and utility room of unit 1042	HA-01	Unit 1040 750 SF; Unit 1042 250 SF	C1	ND
Drywall	MM	Throughout both units	HA-02	NE	C2	ND
4" Cream cove base	MM	Throughout unit 1040	HA-03	85 SF	C2	ND
Tan squares linoleum	MM	Unit 1040 utility room	HA-04	50 SF	C2	ND
12" white squares linoleum	MM	Unit 1042 living room and kitchen	HA-05	120 SF	C2	ND
4" Brown cove base	MM	Throughout unit 1042	HA-06	85 SF	C2	ND
12" Gray floor tile	MM	West bedroom unit 1042	HA-07	100 SF	C1	ND
Roofing Material	MM	Exterior	HA-08	NE	C1	ASSUMED ACM

Material Description	Material Classification	Function Space (FS) Location	HA No.	Approximate Quantity	EPA Category	Asbestos Content
Units 1030 and 1032						
12" Off white with tan streaks floor tile	MM	Throughout unit 1030; utility room and kitchen unit 1032	HA-01	Unit 1030 800 SF; Unit 1032 200 SF	C1	ND
4" Beige cove base	MM	Throughout units 1030 and 1032	HA-02	Unit 1030 85 SF; Unit 1032 85 SF	C2	ND
Drywall	MM	Throughout units 1030 and 1032	HA-03	NE	C2	ND
12" Gray floor tile	MM	2 Northern bedrooms unit 1030	HA-04	200 SF	C1	ND
6" Tan squares pattern linoleum	MM	Unit 1030 bathroom	HA-05	50 SF	C2	ND
Roofing Material	MM	Exterior	HA-06	NE	C1	ASSUMED ACM
Units 1020 and 1022						
Drywall	MM	Throughout units 1020 and 1022	HA-01	NE	C2	ND
12" White squares linoleum	MM	Unit 1022 kitchen	HA-02	150 SF	C2	ND
4" Brown cove base	MM	Unit 1022 kitchen, utility room and bedrooms	HA-03	75 SF	C2	ND
12" White with tan streaks floor tile	MM	Unit 1022 utility room and bedrooms	HA-04	350 SF	C1	ND
4" Beige cove base	MM	Unit 1022 living room and hall	HA-05	25 SF	C2	ND
12" Gray with dark specks floor tile	MM	Unit 1020 throughout	HA-06	800 SF	C1	ND
4" Gray cove base	MM	Unit 1020 throughout	HA-07	85 SF	C2	ND
Speckled sheet flooring	MM	Unit 1020 utility room	HA-08	50 SF	C2	ND
Roofing Material	MM	Exterior	HA-09	NE	C2	ASSUMED ACM

Key: F = Friable; NF = Non-friable; FS = Functional Space; ND = No Asbestos Detected; CHR = Chrysotile; AMO = Amosite; SF = Square Feet; LF = Linear Feet; CF = Cubic Feet; MF = Mud Fittings; Classification: SM = Surfacing Material; TSI = Thermal System Insulation; MM = Miscellaneous Material; EPA Material Categories: FR = Friable Regulated; C2 = Category II Non-friable; C1 = Category I Non-friable; NE = Not Estimated

Recommendations:

1. Non-friable roofing materials are assumed to contain asbestos and do not require removal ahead of renovation or demolition activities, unless building materials will be recycled or the roofing will be made friable.

Samples were collected by a State of Michigan Department of Licensing and Regulatory Affairs (LARA) Michigan Occupational Safety & Health Administration (MIOSHA) -Asbestos Program accredited Asbestos Inspector.

Laboratory results are included in Attachment 1. The methodology followed to complete the asbestos survey is included in Attachment 2.

LIMITATIONS

The information and opinions obtained in this report are for the exclusive use of the Ann Arbor Housing Commission. AKT Peerless will not distribute this report without Client's written consent or as required by law or by a Court order. Report contents must be reviewed and relied upon only in conjunction with the terms and conditions expressly agreed upon by the parties and as limited therein.

Quantities of identified asbestos containing and other hazardous materials reported are provided for reference only.

Prepared by:

AKT PEERLESS ENVIRONMENTAL AND ENERGY SERVICES



Carl D. Rogers
Environmental Consultant
MIOSHA CSHD Asbestos Inspector
Accreditation Number: A36205

Reviewed by:



James C. Fox, RPIH
Sr. Project Manager
MIOSHA CSHD Asbestos Inspector, Management Planner, Project Designer
Accreditation Number: A3152

ATTACHMENT 1

Asbestos Laboratory Results and Chain of Custody

47232

APEX Research, Inc.

11054 Hi Tech Drive, Whitmore Lake, MI 48189. Phone: (734) 449 - 9990, Fax (734) 449 - 9991.
Web Site: <http://apexresearch-inc.com>. Email: Bob.Letarte@apexresearchlab.com



Lab Use Only
 Log-In: _____
 Report: _____
 Fax: _____
 Verbal: _____
 Email: _____

Date of Survey: 8-13-13
 Project: AAHC Hillside Manor Bldg 1
 Project # 8359e-7-190
 Contact Person: Carl Rogers
rogersc@aktpeerless.com

Turn Around Times: (Circle One)

Rush _____
 24 hour _____
 48 hour _____
 Other: TTT (Test Till Positive)

Asbestos: Bulk Wipe _____ Point Count _____ PCM _____
 Lead: Bulk _____ Wipe _____ Air _____ Paint _____ Soil _____
 Mold: Bulk _____ Tape _____ BioSIS _____ Other _____ Viable _____
 TEM: Bulk/NOP _____ AHERA _____ EPA Level II _____ Other _____

***Terms and conditions on the other side.

Laboratory ID #	Customer ID #	Material/Location	Volume	Area	Results
1	1,1	12" off white w/ tan streaks floor tile "			
2	1,2	" "			
3	2,1	Drywall			
4	2,2	" "			
5	3,1	4" Cream Cove Base "			
6	3,2	" "			
7	4,1	FAN SQUARES Linoleum "			
8	4,2	" "			
9	5,1	12" White Squares Linoleum "			
10	5,2	" "		RECEIVED	
11	6,1	4" Brown Cove Base		AUG 13 2013	

Relinquished By: [Signature] Date: 8/13/13
 Received By: [Signature] Date: _____
 Relinquished By: _____ Date: _____
 Relinquished By: APEX RESEARCH Date: _____
 Relinquished By: _____ Date: _____
 Revision Date: December/2006 350

APEX Research, Inc.

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Web Site: <http://apexresearch-inc.com>. Email: Bob.Letarte@apexresearchlab.com



Client Name: AKT Peerless
Address: FARMINGTON
City, St., Zip: _____
Phone: 248-615-1333 Fax: 248-615-1334

Date of Survey: 8-13-13
Project: AAHC Hillside Manor Bldg. 1
Project # 8359e-7-190
Contact Person: Carl Rogers
rogersc@aktpeerless.com

Turn Around Times: (Circle One)

Rush _____
24 hour _____
48 hour _____
72 hour _____
Other: TTP (Test Till Positive)

Asbestos: Bulk X Wipe _____ Point Count _____ PCM _____
Lead: Bulk _____ Wipe _____ Air _____ Paint _____ Soil _____
Mold: Bulk _____ Tape _____ BioSIS _____ Other _____ Viable _____
TEM: Bulk/NOP _____ AHERA _____ EPA Level II _____ Other _____

***Terms and conditions on the other side.

Lab Use Only
Log-In: _____
Report: _____
Fax: _____
Verbal: _____
Email: _____

Laboratory ID #	Customer ID #	Material/Location	Volume	Area	Results
12	6.2	4" Brown Cove Base			
13	7.1	12" Gray Floor Tile			
14	7.2				

Received By: [Signature] Date: 8/13/13
Relinquished By: [Signature] Date: 8/13/13
Relinquished By: WEL RESEARCH Date: _____

47232



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: AAHC Hillside Manor Bldg 1
Project # 8359e-7-190

Report To:

Mr. Carl Rogers & Mr. Jim Fox
AKT Peerless
22725 Orchard Lake Rd.
Farmington, MI 48336

ARI Report # 13-47232
Date Collected: 08/13/13
Date Received: 08/13/13
Date Analyzed: 08/19/13
Date Reported: 08/19/13

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 47232 - 01 Cust. #: 1.1 Material: 12" Off White w/Tan Streaks Floor Tile Location: Appearance: white,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 47232 - 01a Cust. #: 1.1 Material: Glue Location: Appearance: yellow,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 47232 - 02 Cust. #: 1.2 Material: 12" Off White w/Tan Streaks Floor Tile Location: Appearance: white,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.



NVLAP Lab Code 102118-0



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Date Reported: 08/19/13

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 47232 - 02a Cust. #: 1.2 Material: Glue Location: Appearance: yellow,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 47232 - 03 Cust. #: 2.1 Material: Drywall Location: Appearance: grey,fibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 2% Other - 98%
Lab ID #: 47232 - 04 Cust. #: 2.2 Material: Drywall Location: Appearance: white,nonfibrous,nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%

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Project # 8359e-7-190

Report To:

Mr. Carl Rogers & Mr. Jim Fox
AKT Peerless
22725 Orchard Lake Rd.
Farmington, MI 48336

ARI Report # 13-47232
Date Collected: 08/13/13
Date Received: 08/13/13
Date Analyzed: 08/19/13
Date Reported: 08/19/13

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 47232 - 05 Cust. #: 3.1 Material: 4" Cream Cove Base Location: Appearance: white, nonfibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 47232 - 06 Cust. #: 3.2 Material: 4" Cream Cove Base Location: Appearance: white, nonfibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 47232 - 07 Cust. #: 4.1 Material: Tan Squares Linoleum Location: Appearance: grey, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Fiberglass - 10% Other - 90%

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Date Collected: 08/13/13
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Date Analyzed: 08/19/13
Date Reported: 08/19/13

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 47232 - 08 Cust. #: 4.2 Material: Tan Squares Linoleum Location: Appearance: grey, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Synthetic - 10% Other - 90%
Lab ID #: 47232 - 09 Cust. #: 5.1 Material: 12" White Squares Linoleum Location: Appearance: grey, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 15% Fiberglass - 5% Other - 80%
Lab ID #: 47232 - 10 Cust. #: 5.2 Material: 12" White Squares Linoleum Location: Appearance: grey, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 15% Fiberglass - 5% Other - 80%

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Date Collected: 08/13/13
Date Received: 08/13/13
Date Analyzed: 08/19/13
Date Reported: 08/19/13

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 47232 - 11 Cust. #: 6.1 Material: 4" Brown Cove Base Location: Appearance: brown,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 47232 - 12 Cust. #: 6.2 Material: 4" Brown Cove Base Location: Appearance: brown,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 47232 - 13 Cust. #: 7.1 Material: 12" Grey Floor Tile Location: Appearance: grey,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

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Project # 8359e-7-190

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Farmington, MI 48336

ARI Report # 13-47232
Date Collected: 08/13/13
Date Received: 08/13/13
Date Analyzed: 08/19/13
Date Reported: 08/19/13

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 47232 - 13a Cust. #: 7.1 Material: Glue Location: Appearance: yellow,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 47232 - 14 Cust. #: 7.2 Material: 12" Grey Floor Tile Location: Appearance: grey,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: Cust. #: Material: Location: Appearance: Layer: of	Asbestos Present:	

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APEX # **47230**

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 Web Site: <http://apexresearch-inc.com> Email: Bob.Lefante@apexresearchlab.com



Client Name: AKT Peerless
 Address: Farmington
 City, St., Zip: _____
 Phone: 248-615-1353 Fax: 248-615-1354

Date of Survey: 8-13-13
 Project: AHC Hillside Manor Bldg. 2
 Project # 8359e-7-140
 Contact Person: Carl Rogers

Turn Around Times: (Circle One) ****Terms and conditions on the other side.*

Rush 24 hour Asbestos: Bulk Wipe _____ Point Count _____ PCM _____
 48 hour 72 hour Lead: Bulk Bulk _____ Wipe _____ Air _____ Paint _____ Soil _____
 Other: FTPP Mold: Bulk Bulk _____ Tape _____ BIOSIS _____ Other _____ Viable _____
 (Test Till Positive) TEM: Bulk/NOP _____ AHERA _____ EPA Level II _____ Other _____

Lab Use Only
 Log-In: _____
 Report: _____
 Fax: _____
 Verbal: _____
 Email: _____

Laboratory ID #	Customer ID #	Material/Location	Volume	Area	Results
1	1.1-2B	12" off white w/ tan streaks Floor Tile			
2	1.2-2B				
3	2.1-2B	Beige Cove Base			
4	2.2-2B				
5	3.1-2B	Downfall			
6	3.2-2B				
7	4.1-2B	12" Gray Floor Tile			
8	4.2-2B				
9	5.1-2B	6" TAN SQUARES, patterned			
10	5.2-2B	Limestone			

Relinquished By: [Signature] Date: 8/13/13
 Received By: [Signature] Date: 3:50
 Relinquished By: _____ Date: _____
 Relinquished By: _____ Date: _____



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: AAHC Hillside Manor BLDG 2
Project # 3859e-7-190


Report To:

Mr. Carl Rogers
AKT Peerless
22725 Orchard Lake Rd.
Farmington, MI 48336

ARI Report # 13-47230
Date Collected: 08/13/13
Date Received: 08/13/13
Date Analyzed: 08/19/13
Date Reported: 08/19/13

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 47230 - 01 Cust. #: 1.1-2B Material: 12" Off White w/Tan Streaks Floor Tile Location: Appearance: white,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 47230 - 02 Cust. #: 1.2-2B Material: 12" Off White w/Tan Streaks Floor Tile Location: Appearance: white,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 47230 - 02a Cust. #: 1.2-2B Material: Glue Location: Appearance: yellow,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

For Layered Samples, each component will be analyzed and reported separately.


 Robert T. Letarte Jr., Laboratory Director

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Farmington, MI 48336

ARI Report # 13-47230
Date Collected: 08/13/13
Date Received: 08/13/13
Date Analyzed: 08/19/13
Date Reported: 08/19/13

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 47230 - 03 Cust. #: 2.1-2B Material: Beige Cove Base Location: Appearance: grey,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 47230 - 04 Cust. #: 2.2-2B Material: Beige Cove Base Location: Appearance: grey,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 47230 - 05 Cust. #: 3.1-2B Material: Drywall Location: Appearance: grey,fibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 10% Fiberglass - 10% Other - 80%

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Date Received: 08/13/13
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Date Reported: 08/19/13

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 47230 - 06 Cust. #: 3.2-2B Material: Drywall Location: Appearance: grey, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Fiberglass - 5% Other - 75%
Lab ID #: 47230 - 07 Cust. #: 4.1-2B Material: 12" Grey Floor Tile Location: Appearance: grey, nonfibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 47230 - 08 Cust. #: 4.2-2B Material: 12" Grey Floor Tile Location: Appearance: grey, nonfibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%

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Date Collected: 08/13/13
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Date Analyzed: 08/19/13
Date Reported: 08/19/13

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 47230 - 09 Cust. #: 5.1-2B Material: 6" Tan Squares, Patterned Linoleum Location: Appearance: grey, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Synthetic - 10% Other - 90%
Lab ID #: 47230 - 10 Cust. #: 5.2-2B Material: 6" Tan Squares, Patterned Linoleum Location: Appearance: grey, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Synthetic - 10% Other - 90%
Lab ID #: Cust. #: Material: Location: Appearance: Layer: of	Asbestos Present:	

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 Web Site: <http://apexresearch-inc.com> Email: Bob.Letarte@apexresearchlab.com



Client Name: AKT Peerless
 Address: Farmington
 City, St., Zip: _____
 Phone: 248-615-1333 Fax: 248-615-1334

Date of Survey: 8-13-13
 Project: AHHC Hillside Manor Bldg 3
 Project #: 8359e-7-190
 Contact Person: Carl Rogers

Turn Around Times: (Circle One)

Rush _____ 24 hour _____
 48 hour _____ 72 hour _____
 Other: TTP X (Test Till Positive)
 Asbestos: Bulk Wipe _____ Point Count _____ PCM _____
 Lead: Bulk _____ Wipe _____ Air _____ Paint _____ Soil _____
 Mold: Bulk _____ Tape _____ Biosis _____ Other _____ Viable _____
 TEM: Bulk/NOF _____ AHERA _____ EPA Level II _____ Other _____

***Terms and conditions on the other side.
rogers@aktpeerless.com

Lab Use Only
 Log-In: _____
 Report: _____
 Fax: _____
 Verbal: _____
 Email: _____

Laboratory ID #	Customer ID #	Material/Location	Volume	Area	Results
1	1.1-3B	Drywall "			
2	1.2-3B	" "			
3	2.1-3B	12" white squares Linoleum "			
4	2.2-3B	" "			
5	3.1-3B	4" Brown Core Base "			
6	3.2-3B	" "			
7	4.1-3B	12" white w/ tan streaks floor tile "			
8	4.2-3B	" "			
9	5.1-3B	4" Beige Core Base "			
10	5.2-3B	" "			

Relinquished By: [Signature] Received By: [Signature] Relinquished By: _____
 Date: 8/13/13 Date: 3.1.12 Date: _____
 Revision Date: December/2005

47231

APEX Research, Inc.

11054 Hi Tech Drive, Whitmore Lake, MI 48189. Phone: (734) 449 - 9990, Fax (734) 449 - 9991.
Web Site: <http://apexresearch-inc.com> Email: Bob.Lettarte@apexresearchlab.com



Client Name: AKT
Address: Farmington
City, St., Zip: _____
Phone: 248-615-1333 Fax: 248-615-1334

Date of Survey: 8/13/13
Project: DHHC Hillside Manor Bldg 3
Project # 8351e-7-190
Contact Person: Carl Rogers

Turn Around Times: (Circle One)

***Terms and conditions on the other side.

rogers@akflpeelers.com

Rush 24 hour Asbestos: Bulk Wipe _____ Point Count _____ PCM _____
48 hour 72 hour Lead: Bulk Bulk _____ Wipe _____ Air _____ Paint _____ Soil _____
Other: LTP Mold: Bulk Bulk _____ Tape _____ BioSts _____ Other _____ Viable _____
(Great Fill Positive) TEM: Bulk/NOP _____ AHERA _____ EPA Level II _____ Other _____

Lab Use Only
Log-In: _____
Report: _____
Fax: _____
Verbal: _____
Email: _____

Laboratory ID #	Customer ID #	Material/Location	Volume	Area	Results
47231-11	611-3B	12" Gray w/dark specks floor tile "			
12	612-3B	" "			
13	71-3B	4" Gray Core Base "			
14	712-3B	" "			
15	81-3B	Speckled Flooring "			
16	812-3B	" "			

Relinquished By: [Signature] Date: 8/13/13
Received By: [Signature] Date: _____
Relinquished By: _____ Date: _____
Relinquished By: _____ Date: _____



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: AAHC Hillside Manor BLDG 3
Project # 8359e-7-190


Report To:

Mr. Carl Rogers & Mr. Jim Fox
AKT Peerless
22725 Orchard Lake Rd.
Farmington, MI 48336

ARI Report # 13-47231
Date Collected: 08/13/13
Date Received: 08/13/13
Date Analyzed: 08/19/13
Date Reported: 08/19/13

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 47231 - 01 Cust. #: 1.1-3B Material: Drywall Location: Appearance: grey, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Other - 80%
Lab ID #: 47231 - 02 Cust. #: 1.2-3B Material: Drywall Location: Appearance: grey, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Other - 80%
Lab ID #: 47231 - 03 Cust. #: 2.1-3B Material: 12" White Squares Linoleum Location: Appearance: grey, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Fiberglass - 5% Other - 75%

For Layered Samples, each component will be analyzed and reported separately.


 Robert T. Letarte Jr., Laboratory Director

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NVLAP Lab Code 102118-0



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: AAHC Hillside Manor BLDG 3
Project # 8359e-7-190


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ARI Report # 13-47231
Date Collected: 08/13/13
Date Received: 08/13/13
Date Analyzed: 08/19/13
Date Reported: 08/19/13

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 47231 - 04 Cust. #: 2.2-3B Material: 12" White Squares Linoleum Location: Appearance: grey, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Fiberglass - 5% Other - 75%
Lab ID #: 47231 - 05 Cust. #: 3.1-3B Material: 4" Brown Cove Base Location: Appearance: brown, nonfibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 47231 - 06 Cust. #: 3.2-3B Material: 4" Brown Cove Base Location: Appearance: brown, nonfibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%

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Date Analyzed: 08/19/13
Date Reported: 08/19/13

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 47231 - 07 Cust. #: 4.1-3B Material: 12" White w/Tan Streaks Floor Tile Location: Appearance: grey,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 47231 - 07a Cust. #: 4.1-3B Material: Glue Location: Appearance: yellow,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 47231 - 08 Cust. #: 4.2-3B Material: 12" White w/Tan Streaks Floor Tile Location: Appearance: grey,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

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Project: AAHC Hillside Manor BLDG 3
Project # 8359e-7-190

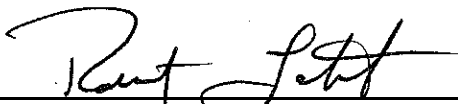
Report To:

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Farmington, MI 48336

ARI Report # 13-47231
Date Collected: 08/13/13
Date Received: 08/13/13
Date Analyzed: 08/19/13
Date Reported: 08/19/13

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 47231 - 08a Cust. #: 4.2-3B Material: Glue Location: Appearance: yellow,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 47231 - 09 Cust. #: 5.1-3B Material: 4" Beige Cove Base Location: Appearance: white,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 47231 - 10 Cust. #: 5.2-3B Material: 4" Beige Cove Base Location: Appearance: grey,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%

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 Robert T. Letarte Jr., Laboratory Director

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Date Analyzed: 08/19/13
Date Reported: 08/19/13

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 47231 - 11 Cust. #: 6.1-3B Material: 12" Grey w/Dark Specks Floor Tile Location: Appearance: grey,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 47231 - 11a Cust. #: 6.1-3B Material: Glue Location: Appearance: black,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 47231 - 12 Cust. #: 6.2-3B Material: 12" Grey w/Dark Specks Floor Tile Location: Appearance: white,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

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Date Analyzed: 08/19/13
Date Reported: 08/19/13

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 47231 - 12a Cust. #: 6.2-3B Material: Glue Location: Appearance: black,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 47231 - 13 Cust. #: 7.1-3B Material: 4" Grey Cove Base Location: Appearance: grey,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 47231 - 14 Cust. #: 7.2-3B Material: 4" Grey Cove Base Location: Appearance: grey,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%

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Date Analyzed: 08/19/13
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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 47231 - 15 Cust. #: 8.1-3B Material: Speckled Flooring Location: Appearance: grey, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Fiberglass - 5% Other - 75%
Lab ID #: 47231 - 16 Cust. #: 8.2-3B Material: Speckled Flooring Location: Appearance: grey, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Fiberglass - 5% Other - 75%
Lab ID #: Cust. #: Material: Location: Appearance: Layer: of	Asbestos Present:	

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NVLAP Lab Code 102118-0

ATTACHMENT 2

Asbestos Survey Methodology

ASBESTOS SURVEY METHODOLOGY

The asbestos survey was performed according to the following methodology:

1. Numerical functional space (FS) designations were assigned to each space in the structure. In general, an FS is defined as a spatially distinct room or area within the building. Functional Spaces also include attics, closets and basements. For clarification, functional space designations were field marked in each space.

2. Suspect Homogeneous Areas (HA) i.e., materials, were inventoried by type based on appearance and other characteristics. Building materials suspect for asbestos content were described based on one of three material classifications:

Surfacing Materials (SM): Sprayed-on, troweled-on, or otherwise applied to surfaces, such as friable acoustical plaster on ceilings and fireproofing materials on structural members, or other materials on surfaces for acoustical, fireproofing, or other purposes.

Thermal System Insulation (TSI): Material that is applied to pipes, fittings, boilers, breeching, tanks, ducts, or other interior structural components to prevent heat lost or gain, or water condensation, or for other purposes.

Miscellaneous Materials (MM): A building material on structural components, structural members, or fixtures, such as non-friable hard-wall and ceiling plaster, floor and ceiling tiles, and does not include surfacing material or thermal system insulation.

3. When a material is determined to be asbestos-containing either through sampling and laboratory analysis or by assumption, the material is grouped into one of three categories: 1) friable regulated asbestos 2) Category II non-friable asbestos or 3) Category I nonfriable asbestos. All friable regulated materials and Category II non-friable materials that will become friable during demolition were sampled. Category I non-friable materials were not sampled but were assumed asbestos-containing. Category I non-friable materials do not become friable during demolition and do not require removal unless the substrate will be recycled.

4. All samples collected were submitted with chain-of-custody documentation to an analytical laboratory that participates in the National Voluntary Laboratory Accreditation Program (NVLAP). All samples were analyzed using polarized light microscopy (PLM) with dispersion staining following United States Environmental Protection Agency (USEPA) Test Method (EPA-600/M4-82-020) and the National Institute of Standards and Technology (NIST) Bulk Asbestos Handbook.

5. A Test-Till-Positive (TTP) approach to laboratory analysis was utilized for the samples. TTP involves analyzing samples by homogeneous area groupings. Laboratory analyses were performed sample by sample within each homogeneous area grouping until a sample was determined to be asbestos containing, then no additional samples in that grouping were analyzed.