



12-19-14

Attn:

City of Charlotte, MI
Amy Gilson, Department of Public Works Director
111 E. Lawrence Ave
Charlotte, MI 48813
517-543-8858

Regarding:

Asbestos Compliance Survey
Charlotte National Guard Armory
1310 S Cochran Ave
Charlotte, MI 48813-2202
Compli-Chek Project No. 121714-1

Dear Client:

In accordance with our agreement, Compli✓Chek Environmental Compliance, LLC (C✓C) has conducted a Pre-Demolition or Renovation Asbestos Survey in general accordance with the National Emissions Standards for Hazardous Air Pollutants (NESHAPS; 40 CFR 61). This survey was conducted at the location above on 12-17-14 by Burt Russell, a Michigan-licensed asbestos inspector (No. A5519).

Compli✓Chek appreciates the opportunity to provide environmental services on this project. Should you need additional services on this or any other project, please feel free to call us.

Respectfully submitted,
Compli✓Chek, LLC

A handwritten signature in black ink, appearing to be "B. Russell", written over a horizontal line.

Burt Russell
Project Specialist

ASBESTOS COMPLIANCE SURVEY

**EPA, OSHA and MIOSHA Guidance
FOR ASBESTOS-CONTAINING MATERIALS**

**Charlotte National Guard Armory
1310 S Cochran Ave
Charlotte, MI 48813-2202**

**PREPARED FOR:
City of Charlotte, MI
111 E. Lawrence Ave
Charlotte, MI 48813**

PREPARED BY:



**Burt R. Russell
Michigan Inspector # AA5519
Project Date: 12-17-14
Compli-Chek Project No. 121714-1
1-800-813-8768**

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The inspector performed a space-by space survey of materials and their locations, employing destructive methods in order to locate and sample concealed materials. ComplivChek uses assessment, sampling and analytical procedures standardized in 1987 by the EPA Asbestos Hazards Emergency Response Act, (40 CFR 763 Subpart M; AHERA). The Michigan-licensed inspector on this project was Burt Russell. Requirements for performing a survey in residential properties with under 4 dwelling units prior to renovation or demolition are found in MIOSHA Asbestos Standards for Construction, Part 602. Requirements for performing a pre-demolition or pre-renovation survey in most other structures are found in Federal Standard Number 40 CFR 61, entitled: National Emissions Standards for Hazardous Air Pollutants (NESHAP). For the purpose of this survey, ComplivChek will use the standardized terminology adopted by the NESHAP and designate all materials as one of the following:

- **RACM (Regulated Asbestos-Containing Materials)** are any of the following:
 - Friable ACM
 - NCAT-1 ACM that has become friable or will be subject to sanding, grinding, cutting or abrading
 - NCAT-2 ACM that is likely to or has become crumbled, pulverized or reduced to powder by renovation or demolition activities.

RACM is detailed and discussed in Section 2A-1.
RACM must always be removed from the structure before demolition or, if it will be disturbed, before renovation.
- **NCAT-1 (NESHAP Category- 1 non-friable material)**
 - gaskets, packings, flooring, asphalt roofing products containing more than 1% asbestos).

NCAT-1 is detailed and discussed in Sections 2A-2& 2A-3.
Some NCAT-1 materials may remain in the structure during a demolition if they are not friable prior to the demolition.
- **NCAT-2 (NESHAP Category- 2 non-friable material)**
 - Any ACM, excluding Category 1, containing more than 1% asbestos that, when dry, cannot be crumbled, pulverized or reduced to powder by hand pressure.

NCAT-2 is detailed and discussed in Sections 2A-2& 2A-3
Some NCAT-2 materials may remain in the structure during a demolition. See Sections 2A-2& 2A-3 for further guidance.
- **NACM (Nonasbestos-Containing Material)** are materials containing less than 1% asbestos.
 - All NACM discovered is detailed in Section 2A-4 of this report.

RACM was discovered: See Section 2A for RACMs & their locations.

10 linear feet: *Material is intact and inaccessible in rooms 12 & 13*

These amounts do not exceed the NESHAP Threshold (260 Lin Ft or 160 Sq Ft) and your project is exempt from NESHAP rules except for notification. OSHA-MIOSHA rules will still apply and are included in Section 2E of this report.

NCAT-1 was discovered

600 Square feet in area 27

See Section 2A. of this report for NESHAPs requirements. Depending on the quantities and current status of these materials, the impact upon them during demo/reno, and the accreditation and training of the individuals performing the work, these materials may not need to be removed before demo/reno. See Section 2E for OSHA/MIOSHA requirements.

Flooring in room 27: \$850 to \$1,200

Pipe wrap rms 12/13: \$350-\$450

RESULTS AND REGULATORY GUIDELINES: SECTION 2

A material is considered by the Environmental Protection Agency (EPA) and the State of Michigan, Department of Labor and Economic Growth to be an asbestos-containing material (ACM) if at least one analysis from a collected sample yields a result greater than 1% asbestos (chrysotile, amosite, tremolite, crocidolite), or, if a material is assumed to contain asbestos based on the knowledge and observation of the licensed inspector. For all RACM, NCAT-1 and NCAT-2 ACM identified during the survey, the following regulatory requirements are applicable.

2A-1

Regulated Asbestos-Containing Materials (RACM)

These materials must be removed prior to demolition, renovation or training burn.

SPACE NUMBER/SPACE DESCRIPTION: ASSIGNED BY THE INSPECTOR, IDENTIFIES SPACES OR AREAS OF BUILDING INTERIORS/EXTERIORS; **MATERIAL NUMBER / MATERIAL DESCRIPTION:** ASSIGNED BY INSPECTOR FOR EACH MATERIAL IDENTIFIED; **MATERIAL TYPE:** (SM) SURFACING MATERIAL / (TSI) THERMAL SYSTEM INSULATION / (MM) MISCELLANEOUS MATERIAL **NESHAP CATEGORY:** NCAT-1 = CATEGORY 1 NON-FRIABLE / NCAT-2 = CATEGORY 2 NONFRIABLE / RACM= REGULATED ASBESTOS-CONTAINING MATERIAL / NA = NON-ASBESTOS CONTAINING MATERIAL **PERCENT ASBESTOS:** PERCENT BY WEIGHT OR ND (NONE DETECTED) **F/NF:** FRIABLE OR NON-FRIABLE; MATERIAL IS ABLE TO BE REDUCED TO POWDER BY HAND PRESSURE; **QUANTITY:** ESTIMATED AMOUNT OF MATERIAL **UNIT OF MEASURE:** (LF)/LINEAL FEET; (SF)/SQUARE FEET; (EA)/EACH

SPACE NUMBER	SPACE DESCRIPTION	MATERIAL NUMBER	MATERIAL DESCRIPTION	MATERIAL TYPE	MATERIAL CONDITION	NESHAP CATEGORY	PERCENT ASBESTOS	F/NF	QUANTITY	UNIT OF MEASURE
2A.1	Regulated Asbestos-Containing Materials (RACM)									2A.1
12	OFFICE 12	3	AIRCELL PIPE WRAP	T	INTACT	RACM	98%	F	4	LF
13	OFFICE 13	3	AIRCELL PIPE WRAP	T	INTACT	RACM	98%	F	6	LF

Note: The MIOSHA standard does not use the term "RACM" and the NESHAP rules do not correlate directly with OSHA. This part of the report attempts to address both standards at the point where air quality issues and worker protection intersect. See Section 2E for additional MIOSHA guidance.

- ☒ <260 Linear/160 square ft = NESHAP rules do not apply.
- ☐ Non-friable removal or demo: NESHAP rules may apply.
- ☒ >10 lin/15 sq ft. (MIOSHA) MDLEG Notification required at least 10 calendar days prior to startup.
- ☒ Friable material removal (the following minimum compliance is advised)

- Work area containment (EPA/MIOSHA)
- Post-abatement air clearance performed when negative pressure enclosure is used (MIOSHA).
- Adequately wet the material during removal (EPA/MIOSHA)
- At least one 40-hour trained Competent Person must be present during RACM removal. (MIOSHA)
- Trained and licensed personnel must remove RACM prior to demolition. (MIOSHA)

2A-2

NESHAPs Category 1 & 2 That Must Be Removed Before Demo/Reno

Not applicable now but in future, flooring in 27 may deteriorate further.

Flooring in Poor Condition: If Category 1 non-friable ACM has not crumbled, been pulverized or reduced to powder and will not become so during the course of demolition/renovation operations, it is considered non-friable and therefore is not subject to Asbestos NESHAP. It is still possible that, during a demolition that these materials could become crumbled, pulverized or reduced to powder, and would then become RACM and therefore covered by the Asbestos NESHAP.

NESHAPs Category 1 & 2 That May Remain for Demo/Reno

The property owner or demolition operator is required to make this determination depending on the criteria described in this section.

SPACE NUMBER/SPACE DESCRIPTION: ASSIGNED BY THE INSPECTOR, IDENTIFIES SPACES OR AREAS OF BUILDING INTERIORS/EXTERIORS;
MATERIAL NUMBER / MATERIAL DESCRIPTION: ASSIGNED BY INSPECTOR FOR EACH MATERIAL IDENTIFIED; **MATERIAL TYPE:** (SM) SURFACING MATERIAL / (TSI) THERMAL SYSTEM INSULATION / (MM) MISCELLANEOUS MATERIAL **NESHAP CATEGORY:** NCAT-1 = CATEGORY 1 NON-FRIABLE / NCAT-2 = CATEGORY 2 NONFRIABLE / RACM= REGULATED ASBESTOS-CONTAINING MATERIAL / NA = NON-ASBESTOS CONTAINING MATERIAL
PERCENT ASBESTOS: PERCENT BY WEIGHT OR ND (NONE DETECTED) **F/NF:** FRIABLE OR NON-FRIABLE; MATERIAL IS ABLE TO BE REDUCED TO POWDER BY HAND PRESSURE; **QUANTITY:** ESTIMATED AMOUNT OF MATERIAL **UNIT OF MEASURE:** (LF)/LINEAL FEET; (SF)/SQUARE FEET; (EA)/EACH

SPACE NUMBER	SPACE DESCRIPTION	MATERIAL NUMBER	MATERIAL DESCRIPTION	MATERIAL TYPE	MATERIAL CONDITION	NESHAP CATEGORY	PERCENT ASBESTOS	F/NF	QUANTITY	UNIT OF MEASURE
2A.3	NESHAPs Category 1 & 2 That May Remain for Demo/Reno									2A.3
27	2ND FLOOR S.E. RM	6	12X12" FLOOR TILE	M	INTACT	NCAT1	2%	NF	600	SF

Review Section 2 E of this report

- The Michigan Department of Environmental Quality (MDEQ) does not require the removal of NCAT-1& 2 materials prior to demolition if it can be reasonably expected that the material will not be crumbled, pulverized or otherwise reduced to powder.
- If these materials will become friable during R/D activities, the use of licensed abatement personnel to conduct removal prior to R/D is required and all NESHAP rules will apply. (See RACM at 2A above).
- The contractor is required to submit a Notice of Intent to Demolish to the Michigan Department of Environmental Quality at least 10 working days prior to demolition and also to the Michigan Department of Labor and Economic Growth at least 10 calendar days prior to the demolition when quantities being demolished, renovated or encapsulated exceed 10 linear or 15 square feet.
- At least one individual trained in the provisions of the NESHAP must be present during any R/D activity that is likely to disturb asbestos-containing material.

NON-ASBESTOS CONTAINING MATERIALS

These materials may remain with the structure during demolition.

SPACE NUMBER/SPACE DESCRIPTION: ASSIGNED BY THE INSPECTOR, IDENTIFIES SPACES OR AREAS OF BUILDING INTERIORS/EXTERIORS;
MATERIAL NUMBER / MATERIAL DESCRIPTION: ASSIGNED BY INSPECTOR FOR EACH MATERIAL IDENTIFIED; **MATERIAL TYPE:** (SM) SURFACING MATERIAL / (TSI) THERMAL SYSTEM INSULATION / (MM) MISCELLANEOUS MATERIAL **NESHAP CATEGORY:** NCAT-1 = CATEGORY 1 NON-FRIABLE / NCAT-2 = CATEGORY 2 NONFRIABLE / RACM= REGULATED ASBESTOS-CONTAINING MATERIAL / NA = NON-ASBESTOS CONTAINING MATERIAL
PERCENT ASBESTOS: PERCENT BY WEIGHT OR ND (NONE DETECTED) **F/NF:** FRIABLE OR NON-FRIABLE; MATERIAL IS ABLE TO BE REDUCED TO POWDER BY HAND PRESSURE; **QUANTITY:** ESTIMATED AMOUNT OF MATERIAL **UNIT OF MEASURE:** (LF)/LINEAL FEET; (SF)/SQUARE FEET; (EA)/EACH

SPACE NUMBER	SPACE DESCRIPTION	MATERIAL NUMBER	MATERIAL DESCRIPTION	MATERIAL TYPE	MATERIAL CONDITION	NESHAP CATEGORY	PERCENT ASBESTOS	F/NF	QUANTITY	UNIT OF MEASURE
2A.4	NACM: Non-Asbestos-Containing Materials (Testing <1%)									2A.4
1	N.W. STORAGE AREA	NA	NO SUSPECT MATERIALS	NA	NA	NA	NA	NA	NA	NA
2	GROUND FLOOR CENTER	NA	NO SUSPECT MATERIALS	NA	NA	NA	NA	NA	NA	NA
3	WOMENS TOILET	NA	NO SUSPECT MATERIALS	NA	NA	NA	NA	NA	NA	NA
4	MENS TOILET	NA	NO SUSPECT MATERIALS	NA	NA	NA	NA	NA	NA	NA
5	JANITOR CLOSET	NA	NO SUSPECT MATERIALS	NA	NA	NA	NA	NA	NA	NA
6	OFFICE 6	NA	NO SUSPECT MATERIALS	NA	NA	NA	NA	NA	NA	NA
7	OFFICE 7	8	2X4' FISSURED CEILING	M	INTACT	NA	ND	F	1530	SF
8	NO ACCESS THIS ROOM	NA	UNKNOWN	NA	NA	NA	NA	NA	NA	NA
9	OFFICE 9 AND STORAGE AREA	NA	NO SUSPECT MATERIALS	NA	NA	NA	NA	NA	NA	NA
10	OFFICE 10 AND PANEL RM	4	DRYWALL	M	INTACT	NA	ND	NF	160	SF
10	OFFICE 10 AND PANEL RM	5	JOINT COMPOUND	M	INTACT	NA	ND	NF	<20	SF
10	OFFICE 10 AND PANEL RM	8	2X4' FISSURED CEILING	M	INTACT	NA	ND	F	240	SF
11	E AND W STAIRWELLS	10	RUBBER STAIR RUNNER	M	INTACT	NA	ND	F	120	SF
11A	HALL NEXT TO N.E. STAIR	4	DRYWALL	M	INTACT	NA	ND	NF	8	SF
12	OFFICE 12	8	2X4' FISSURED CEILING	M	INTACT	NA	ND	F	160	SF
12	OFFICE 12	4	DRYWALL	M	INTACT	NA	ND	NF	340	SF
12	OFFICE 12	5	JOINT COMPOUND	M	INTACT	NA	ND	NF	<20	SF
13	OFFICE 13	8	2X4' FISSURED CEILING	M	INTACT	NA	ND	F	210	SF
13	OFFICE 13	4	DRYWALL	M	INTACT	NA	ND	NF	430	SF
13	OFFICE 13	5	JOINT COMPOUND	M	INTACT	NA	ND	NF	<22	SF
14	EAST/WEST HALLS	NA	NO SUSPECT MATERIALS	NA	NA	NA	NA	NA	NA	NA
15	LOWER MEETING ROOM	1	BASE COAT PLASTER	S	INTACT	NA	ND	NF	600	SF
15	LOWER MEETING ROOM	2	FINISH COAT PLASTER	S	INTACT	NA	ND	NF	600	SF
16	OFFICE 16	8	2X4' FISSURED CEILING	M	INTACT	NA	ND	F	96	SF
17	OFFICE 17	4	DRYWALL	M	INTACT	NA	ND	NF	340	SF
17	OFFICE 17	5	JOINT COMPOUND	M	INTACT	NA	ND	NF	<20	SF
18	STORAGE	NA	NO SUSPECT MATERIALS	NA	NA	NA	NA	NA	NA	NA
19	OFFICE 19	9	2X4' DENT PATTERN CEILING	M	INTACT	NA	ND	F	110	SF
19	OFFICE 19	4	DRYWALL	M	INTACT	NA	ND	NF	80	SF
19	OFFICE 19	5	JOINT COMPOUND	M	INTACT	NA	ND	NF	<5	SF
20	OFFICE 20	9	2X4' DENT PATTERN CEILING	M	INTACT	NA	ND	F	110	SF
20	OFFICE 20	4	DRYWALL	M	INTACT	NA	ND	NF	80	SF
20	OFFICE 20	5	JOINT COMPOUND	M	INTACT	NA	ND	NF	<5	SF

NON-ASBESTOS CONTAINING MATERIALS

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SPACE NUMBER	SPACE DESCRIPTION	MATERIAL NUMBER	MATERIAL DESCRIPTION	MATERIAL TYPE	MATERIAL CONDITION	NESHAP CATEGORY	PERCENT ASBESTOS	F/NF	QUANTITY	UNIT OF MEASURE
2A.4	NACM: Non-Asbestos-Containing Materials (Testing <1%)									2A.4
21	WEST STORAGE AREA	NA	NO SUSPECT MATERIALS	NA	NA	NA	NA	NA	NA	NA
22	2ND FLOOR GYM	NA	NO SUSPECT MATERIALS	NA	NA	NA	NA	NA	NA	NA
23	2ND FLOOR S.W. RM	7	ASPHALT UNDER CARPET RM 23	M	INTACT	NA	ND	NF	600	SF
24	2ND FLOOR N.W. TOILET	4	DRYWALL	M	INTACT	NA	ND	NF	80	SF
24	2ND FLOOR N.W. TOILET	5	JOINT COMPOUND	M	INTACT	NA	ND	NF	<5	SF
25	BALCONY WALK	NA	NO SUSPECT MATERIALS	NA	NA	NA	NA	NA	NA	NA
26	2ND FLOOR N.E. TOILET	NA	NO SUSPECT MATERIALS	NA	NA	NA	NA	NA	NA	NA

Material Identification and Sample Location

All sample sites and information about asbestos content and sample locations is organized here.

Material #: 1		BASE COAT PLASTER		
SAMPLE #		SAMPLE LOCATION	ASBESTOS PRESENT ?	TYPE
01	A	MEETING ROOM FROM WINDOW DAMAGE	NONE DETECTED	NA
01	B	MEETING ROOM EAST WALL BY DOOR	NONE DETECTED	NA
Material #: 2		FINISH COAT PLASTER		
SAMPLE #		SAMPLE LOCATION	ASBESTOS PRESENT ?	TYPE
02	A	MEETING ROOM FROM WINDOW DAMAGE	NONE DETECTED	NA
02	B	MEETING ROOM EAST WALL BY DOOR	NONE DETECTED	NA
Material #: 3		AIRCELL PIPE WRAP		
SAMPLE #		SAMPLE LOCATION	ASBESTOS PRESENT ?	TYPE
03	A	OFFICE 12 ABOVE CEILING	98.0%	CHRYSTILE
Material #: 4		DRYWALL		
SAMPLE #		SAMPLE LOCATION	ASBESTOS PRESENT ?	TYPE
04	A	OFFICE 20 AT WINDOW	NONE DETECTED	NA
04	B	OFFICE 13 NORTH WALL	NONE DETECTED	NA
Material #: 5		JOINT COMPOUND		
SAMPLE #		SAMPLE LOCATION	ASBESTOS PRESENT ?	TYPE
05	A	OFFICE 20 AT WINDOW	NONE DETECTED	NA
05	B	OFFICE 13 NORTH WALL	NONE DETECTED	NA
Material #: 6		12X12" FLOOR TILE / TRACE MASTIC		
SAMPLE #		SAMPLE LOCATION	ASBESTOS PRESENT ?	TYPE
06	A	ROOM 27 SOUTH WALL	2.0%	CHRYSTILE
06	B	ROOM 27 WEST SIDE	NOT ANALYZED	NA
Material #: 7		ASPHALT UNDER CARPET ROOM 23		
SAMPLE #		SAMPLE LOCATION	ASBESTOS PRESENT ?	TYPE
07	A	AT DOOR FROM 22	NONE DETECTED	NA
07	B	AT DOOR FROM 22	NONE DETECTED	NA
Material #: 8		2X4' FISSURED CEILING		
SAMPLE #		SAMPLE LOCATION	ASBESTOS PRESENT ?	TYPE
08	A	SOUTHEAST OFFICE	NONE DETECTED	NA
Material #: 9		2X4' DENT PATTERN CEILING		
SAMPLE #		SAMPLE LOCATION	ASBESTOS PRESENT ?	TYPE
09	A	SOUTHWEST OFFICE	NONE DETECTED	NA
Material #: 10		RUBBER STAIR RUNNER		
SAMPLE #		SAMPLE LOCATION	ASBESTOS PRESENT ?	TYPE
10	A	SOUTHEAST STAIR	NONE DETECTED	NA

Analyses by Polarized Light Microscopy, Point Count Method or Transmission Electron Microscopy are organized under this cover page.

TRIANGLE ENVIRONMENTAL SERVICE CENTER, INC.

13509 East Boundary Road, Suite B, Midlothian, VA 23112
804-739-1751 • fax: 804-739-1753

BULK ASBESTOS SAMPLE ANALYSIS SUMMARY

CLIENT: Compli-Chek Environmental, LLC
2709 Geert Ct.
Lansing, MI 48910

TESC LOGIN #: 141218K

DATE OF RECEIPT: 12/18/2014
DATE OF ANALYSIS: 12/18/2014
DATE OF REPORT: 12/19/2014

CLIENT JOB/ #: 121714-1

JOB SITE: Charlotte Armory

ANALYST: F. Jiang


TESC SAMPLE #	CLIENT SAMPLE ID & GROSS DESCRIPTION	ESTIMATED % ASBESTOS	NON ASBESTOS % FIBERS	NON FIBROUS % MATERIALS
1	1A / Gray granular	NAD		100%
2	1B / Gray granular	NAD		100%
3	2A / White powder	NAD		100%
4	2B / White powder	NAD		100%
5	3A / Gray fibers	98% Chrysotile		2%
6	4A / White powder	NAD		100%
7	4B / White powder	NAD		100%
8	5A / White powder	NAD		100%
9	5B / White powder	NAD		100%
10A	6A / Gray vinyl	2% Chrysotile		98%

Samples are analyzed in accordance with "Interim Method for the Determination of Asbestos in Bulk Insulation Samples", EPA 600/M4-82-020, Dec. 1982 and "Method for the Determination of Asbestos in Bulk Building Materials", EPA 600/R-93/116, July 1993. None Detected: not detected at/or below the detected limit of method (Reporting limit: 1% Asbestos). Glass fiber is analyzed for quality control blank. TESC recommends by point count or Transmission Electron Microscopy (TEM), for materials regulated by the EPA NESHAP (National Emission Standards for Hazardous Air Pollutants) and found to contain less than ten percent (<10%) asbestos by Polarized Light Microscopy (PLM). Both services are available for an additional fee. This report shall not be reproduced, except in full written approval of Triangle Environmental Service Center, Inc. This report must not be used by the customer to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the Federal Government. This test report relates only to the item(s) tested.

NVLAP Lab Code: 200794-0

[LEGEND NAD=No Asbestos Detected, Lino.=Linoleum, JC=Joint Compound]

Reviewed By Authorized Signatory:



Feng Jiang, MS Senior Geologist, Laboratory Director
Yuedong Fang, Senior Geologist

TRIANGLE ENVIRONMENTAL SERVICE CENTER, INC.

13509 East Boundary Road, Suite B, Midlothian, VA 23112
804-739-1751 • fax: 804-739-1753

BULK ASBESTOS SAMPLE ANALYSIS SUMMARY

CLIENT: Compli-Chek Environmental, LLC
2709 Geert Ct.
Lansing, MI 48910

TESC LOGIN #: 141218K

DATE OF RECEIPT: 12/18/2014
DATE OF ANALYSIS: 12/18/2014
DATE OF REPORT: 12/19/2014

CLIENT JOB/ #: 121714-1

JOB SITE: Charlotte Armory

ANALYST: F. Jiang

TESC SAMPLE #	CLIENT SAMPLE ID & GROSS DESCRIPTION	ESTIMATED % ASBESTOS	NON ASBESTOS % FIBERS	NON FIBROUS % MATERIALS
10B	6A / Brown adhesive	NAD		100%
11A	6B /	Positive Stop		
11B	6B / Brown adhesive	NAD		100%
12	7A / Black adhesive	NAD		100%
13	7B / Black adhesive	NAD		100%
14	8A / Gray fibers	NAD	85% Cellulose 5% Fiberglass	10%
15	9A / Gray fibers	NAD	85% Cellulose 5% Fiberglass	10%
16	10A / Black rubber	NAD		100%

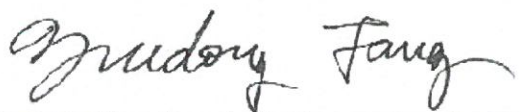
Total Samples/Layers Analyzed: 17

Samples are analyzed in accordance with "Interim Method for the Determination of Asbestos in Bulk Insulation Samples", EPA 600/M4-82-020, Dec. 1982 and "Method for the Determination of Asbestos in Bulk Building Materials", EPA 600/R-93/116, July 1993. None Detected: not detected at/or below the detected limit of method (Reporting limit: 1% Asbestos). Glass fiber is analyzed for quality control blank. TESC recommends by point count or Transmission Electron Microscopy (TEM), for materials regulated by the EPA NESHAP (National Emission Standards for Hazardous Air Pollutants) and found to contain less than ten percent (<10%) asbestos by Polarized Light Microscopy (PLM). Both services are available for an additional fee. This report shall not be reproduced, except in full written approval of Triangle Environmental Service Center, Inc. This report must not be used by the customer to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the Federal Government. This test report relates only to the item(s) tested.

NVLAP Lab Code: 200794-0

[LEGEND NAD=No Asbestos Detected, Lino.=Linoleum, JC=Joint Compound]

Reviewed By Authorized Signatory:



Feng Jiang, MS Senior Geologist, Laboratory Director
Yuedong Fang, Senior Geologist

141218K

13509 East Boundary Road, Suite B • Midlothian • VA • 23112 • Tel: 804-739-1751 • Fax: 804-739-1753

LAB CUSTOMER: Compli-Chek Environmental, LLC

DATE: 12-17-14

CONTACT NAME: Burt Russell

PROJECT #: 121714-1

PROJECT SITE: Charlotte Armory

Fax: 517-394-0454

Email: complichek@yahoo.com

Analyzed by TESC

Project # 121714-1

Site:

Charlotte Armory

Date:

17-Dec

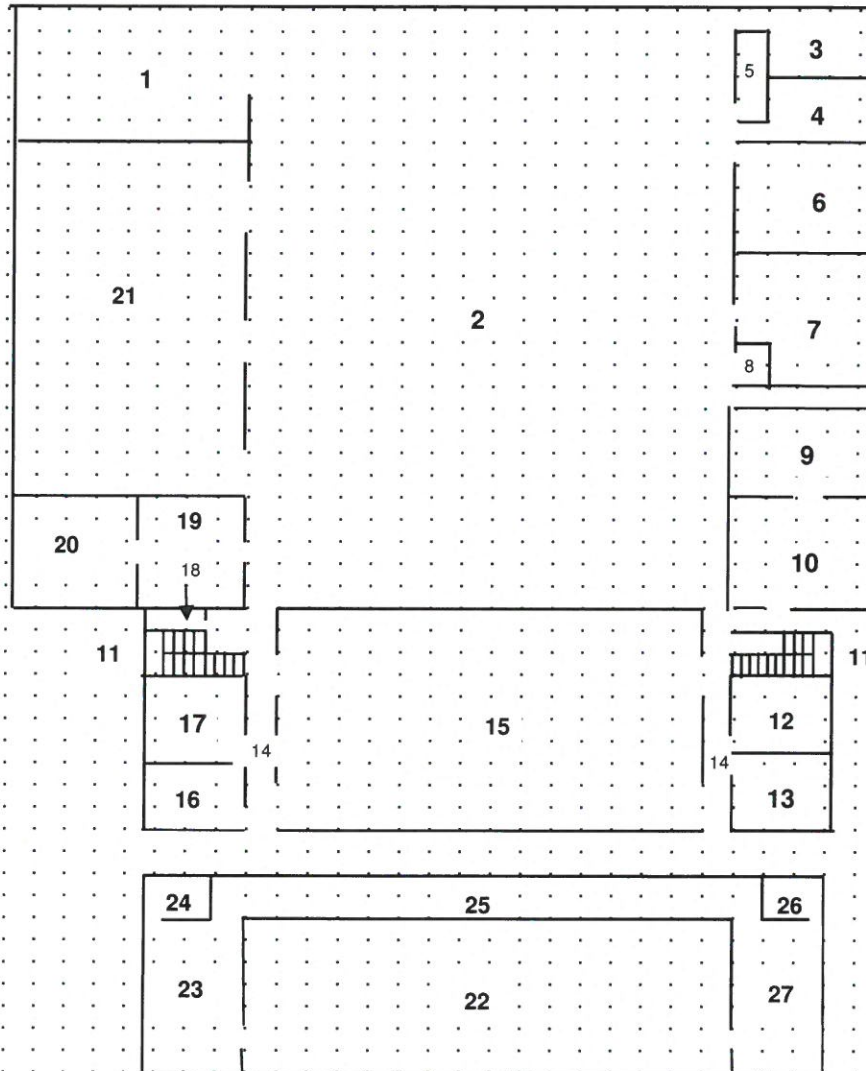
SAMPLED MATERIALS

1	BASE COAT PLASTER
2	FINISH COAT PLASTER
3	AIRCELL PIPE WRAP
4	DRYWALL
5	JOINT COMPOUND
6	12X12" FLOOR TILE/TRACE MASTIC
7	ASPHALT UNDER CARPET RM 23
8	2X4' FISSURED CEILING
9	2X4' DENT PATTERN CEILING

9	RUBBER STAIR RUNNER
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CJC



1	N.W. STORAGE AREA
2	GROUND FLOOR CENTER
3	WOMENS TOILET
4	MENS TOILET
5	JANITOR CLOSET
6	OFFICE 6
7	OFFICE 7
8	NO ACCESS THIS ROOM
9	OFFICE 9 AND STORAGE AREA
10	OFFICE 10 AND PANEL RM

11	E/W STAIRWELLS
12	OFFICE 12
13	OFFICE 13
14	EAST/WEST HALLS
15	LOWER MEETING ROOM
16	OFFICE 16
17	OFFICE 17
18	STORAGE
19	OFFICE 19
20	OFFICE 20

21	WEST STORAGE AREA
22	2ND FLOOR GYM
23	2ND FLOOR S.W. RM
24	2ND FLOOR N.W. TOILET
25	BALCONY WALK
26	2ND FLOOR N.E. TOILET
27	2ND FLOOR S.E. RM
28	
29	
30	

2E.1 OSHA/MIOSHA Requirements for Demolitions**2E.1**

The NESHAPs rules were promulgated to protect the environment. Worker protection, work practices and hazard communication concerns are regulated by the Michigan Department of Labor and Economic Growth (DLEG) under the authority of Michigan Public Act 154. A brief OSHA/MIOSHA overview is provided for the client's guidance:

(1). Thermal system and Surfacing ACM: (pipe, duct and boiler insulation, plasters, fireproofing, towed materials)

- Must be removed by a licensed abatement contractor. There is an exception: a licensed trade group (residential builder or maintenance and alteration contractor) may remove small quantities without holding an abatement contractor's license.
- Project notification if greater than 10 Linear / 15 Square feet
- 40-Hour-trained Competent Person must be licensed, present and annually trained
- 32- hour worker training and license required with annual refresher (excludes residential 10 units or less)
- Regulated area required
- Personal air monitoring until negative exposure assessment is established for each individual task associated with demolition.
- Wet methods
- Decon unit with shower
- Respirators and respiratory protection program
- Medical Surveillance
- Protective clothing
- Waste disposal (sealed impermeable containers) and waste hauling restrictions
- Engineering controls for partial interior demo (isolation / containment)
- Engineering controls for buildings where ACM remains in place without removal

(2). Demo when leaving 1 Non-Intact Class II ACM:

(roofing, flooring, mastics, caulks, glazings, siding materials, ceiling tiles, transite)

Note: When wallboard panels with ACM joint compound are removed, the work would be considered OSHA Class II. OSHA regards joint compound as finishing material. Provisions the employer must comply with include the methods of compliance provisions presented at 29 CFR 1926.1101(g)(1), (g)(2), (g)(3), and (g)(7) and at 29 CFR 1926.1101(g)(8)(v) or (vi); and the waste disposal provision at 29 CFR 1926.1101(l)(2).

- If the material is currently friable the demo contractor must be a licensed abatement contractor. There is an exception: a licensed trade group (residential builder or maintenance and alteration contractor) may remove small quantities without holding an abatement contractor's license.
- DLEG project notification if greater than 10 Linear / 15 Square feet
- 40-Hour-trained Competent Person must be licensed, present and annually trained.
- Demo personnel must be 8-Hour-trained with annual refreshers
- Regulated area required
- Personal air monitoring until negative exposure assessment is established for each individual task associated with demolition.
- Wet methods
- Decon unit (drop cloth and HEPA vacuum) if no NEA
- Respirators and respiratory protection program
- Medical Surveillance
- Protective clothing
- Waste disposal (sealed impermeable containers)

- Waste hauling restrictions (if friable)
- Engineering controls for partial interior demo (isolation / containment)
- Engineering controls for buildings where ACM remains in place without removal

(3). Demo when leaving more than 1 Non-Intact Class II ACM: (roofing, flooring, mastics, caulks, glazings, siding materials, ceiling tiles, transite)

- If the material is currently friable the demo contractor must be a licensed abatement contractor. There is an exception: a licensed trade group (residential builder or maintenance and alteration contractor) may remove small quantities without holding an abatement contractor's license.
- DLEG project notification if greater than 10 Linear / 15 Square feet
- 40-Hour-trained Competent Person must be licensed, present and annually trained.
- 32- hour worker training and license required with annual refresher **on friable projects** (excludes residential 10 units or less and exterior ACM projects)
- 8- hour worker training and license required with annual refresher **on non-friable projects** (excludes residential 10 units or less and exterior ACM projects)
- Regulated area required
- Personal air monitoring until negative exposure assessment is established **for each individual task associated with demolition.**
- Wet methods
- Decon unit (drop cloth and HEPA vacuum) if no NEA
- Respirators and respiratory protection program
- Medical Surveillance
- Protective clothing
- Waste disposal (sealed impermeable containers)
- Waste hauling restrictions (if friable)
- Engineering controls for partial interior demo (isolation / containment)
- Engineering controls for buildings where ACM remains in place without removal

2E.2 Building Owner and Employer/Contractor Responsibilities

2E.2

The MIOSHA Asbestos Standards for Construction, Part 602, requires pre-1981 building owners to conduct a thorough asbestos building survey. This survey must identify the presence, location and quantity of asbestos-containing material (ACM) and/or presumed asbestos-containing material (PACM) within the building. Once the building has been determined to have ACM/PACM, a contractor working in the facility must assess whether their work may require them to disturb or remove these materials during renovation/demolition activities. If so, they must comply with applicable work practices and procedures in Part 602. Contractors removing or encapsulating friable ACM/PACM may require licensing under the Michigan Asbestos Abatement Contractor Licensing Act (Act 135, P.A. 1986, as amended).

MIOSHA Regulations Part 602:

- Requires an asbestos building/facility inspection in pre-1981 buildings.
- Obligates the building/facility owner to notify immediate employees and contractors working in facility of asbestos building/facility survey results.
- If the building survey is not available, obligates contractors/employers to presume suspect materials contain asbestos until a proper rebuttal through material sampling/analysis is performed.
- Specifies required work practices, protective equipment and procedures for employees removing and/or disturbing ACM and/or PACM.
- Requires asbestos awareness training for employees who may contact but not disturb ACM and/or PACM. Training focuses on building materials that may contain asbestos to help assure that the building survey identified these materials and to prevent unintended disturbances.

Michigan Public Act 440 of 1988 (as amended), Asbestos Workers Accreditation Act:

- Requires persons who perform asbestos-related work in schools, school buildings, public and commercial buildings to be properly trained and accredited through the DLEG Asbestos Program, before performing the work (i.e., asbestos abatement workers, contractor/supervisors, building inspectors, management planners, and project designers).
- Requires trainers who train asbestos abatement workers, contractor/supervisors, building inspectors, management planners, and project designers in Michigan to be approved by the DLEG Asbestos Program before providing the training.
- Authorizes penalties and fines for violations of the Act.
- Authorizes the suspension, revocation, or denial of accreditation and trainer approval.

Sampling Methodology

A minimum of two representative bulk samples are collected for each homogeneous miscellaneous material. Some materials, such as trowel-applied sprayed acoustics and fireproofing are sampled 3 or more times. Other materials that have been historically identified as asbestos-containing (Transite®, and pre-1940 pipe insulations) may be identified as presumed asbestos-containing materials (PACM). Each material is assigned a number (1,2,3,etc.) and each sample for the material is assigned an alpha designation (A,B,C, etc.). Homogenous material determination was based on the following criteria:

- Similar physical characteristics (same color and texture, etc.)
- Application (sprayed-on, troweled-on, assembly into a system, etc.)
- Material function (Thermal insulation, floor tile, wallboard system, etc.)

Assessment Methodology

Material condition was assessed in order to categorize each material in accordance with the National Emissions Standard for Hazardous Air Pollutants (NESHAP; 40 CFR Part 61). The NESHAP Standard is the federal regulation governing the proper handling and disposal of ACMs(ACM) during demolition and renovation activities.

Material Quantities and Cost Estimating

ComplivChek estimates quantities of all materials in the field in order to establish sampling requirements. Quantities of asbestos-containing materials are included in the final report. These quantities are visual estimates only, and may not include additional quantities that were concealed or inaccessible during the on-site survey. Cost estimates are averaged from 2 or more inquiries of abatement professionals in the field for similar work. Reported quantities are not intended for cost estimating purposes; any contractor wishing to bid abatement work related to these findings is required to establish quantities to their own satisfaction. Quantities of materials which yielded negatives for all samples are not reported.

PLM Analysis Methodology

Laboratory Services were provided by one or both of the following laboratories:

Triangle Environmental Service Center (TESC)
15549 Fox Cove Circle
Mosely, VA 23120

Sanair Technologies Laboratory, Inc
1551 Oakbridge Dr. Suite B
Powhatan, Va 23139

Both labs are National Voluntary Laboratory Accreditation Program (NVLAP) participants in good standing. Samples were analyzed consecutively by alpha designation until a positive result was recorded for that material, at which time further analyses for that material were halted and the material was then identified by the laboratory as positive. If the analyst received a negative result, all samples in that alpha series were analyzed and the material was then designated as negative for asbestos content. Analysis was performed by using the bulk sample for visual observation and slide preparation(s) for microscopic examination and identification. The samples were analyzed for asbestos (chrysotile, amosite, crocidolite, anthophyllite, and actinolite/tremolite), as well as fibrous non-asbestos constituents (mineral wool, cellulose, etc.) and non-fibrous constituents. Using a stereoscope, the microscopist visually estimated relative amounts of each constituent by determining the volume of each constituent in proportion to the total volume of the sample.

Physical or Other Limitations

Some areas were not accessed during the on-site investigation. These areas are described as follows:

- Roofing (would require roofing professional to repair)
- Trenches, voids, crocks below grade (would require demolition for access)

