

**Tighe**&Bond

Citizens Block 28-36 Park Place Vernon, Connecticut

# **Hazardous Building Materials Assessment**

Prepared For:

Capitol Region Council of Governments

March 2016



12-1077-3 March 21, 2016

Mary Ellen Kowalewski Director of Policy and Planning Capitol Region Council of Governments 241 Main Street Hartford, CT 06106

Re: Limited Hazardous Building Material Assessment Report Citizen's Block 28-36 Park Place Vernon, CT

Dear Ms. Kowalewski:

In accordance with our proposal dated October 14, 2015, Tighe & Bond has completed the Limited Hazardous Building Materials Assessment (HBMA) for the Citizen's Block Property at 28-36 Park Place in Vernon, CT. It is our understanding that the Town of Vernon owns the site and plans on performing renovations to improve the appearance of the building façade. The purpose of the inspection was to determine if hazardous building materials are associated with building components that will be impacted during proposed renovations. We utilized a Pre-renovation Hazardous Materials Inspection report from Eagle Environmental, Inc. dated July 31, 2003 to assist in our assessment.

# **Assessment Summary**

The HBMA was conducted by State of Connecticut licensed inspector, Philip C. Hutter of Tighe & Bond on November 6, 2015. A copy of the inspector's license is included in Appendix A. The HBMA was limited to the building's façade in locations where renovations are planned. The inspection included sampling of suspect asbestos containing materials (ACM), lead-based paint screening by paint chip analysis, and an assessment of suspect materials for polychlorinated biphenyls (PCBs). A photographic log is found in Appendix B.

# **Suspect Asbestos-Containing Materials Sampling**

A total of 22 different types of suspect asbestos containing materials were observed and sampled including window frame caulk, window glazing compound, paints, mortar and residual flashing material. Sampled materials are listed in Tables 1 and 2 in Appendix C. Up to 3 samples were collected of each suspect material in accordance with the United States Environmental Protection Agency (EPA) requirements for asbestos identification. Samples were submitted to EMSL Laboratories in Wallingford, Connecticut for asbestos analysis via Polarized Light Microscopy (PLM) using EPA approved protocol in accordance with accreditation of the National Institute of Standards and Technology (NIST).

During inspection activities the sample locations, types of material, and quantities were recorded. Homogenous materials were noted when observed.

#### **Lead-Based Paint Sampling**

Lead based paint (LBP) screening was conducted utilizing paint chip sampling techniques. Paint was sampled from the main components on the exterior. There are multiple painted items in the exterior façade that are proposed to be disturbed that include but not limited to wall panel paint, portico paint, window paint, and soffit/cornice paint. The samples were submitted to Phoenix Laboratories for analysis of lead by Flame AAS (SW 846 3050B/7000B).



#### **PCB Assessment**

Several types of paints were observed around the façade along with caulking and glazing compounds in locations that are proposed to be disturbed. Tighe & Bond has provided an option to CRCOG that the paints, the caulking and window glazing compound can be assumed to contain PCBs greater than or equal to ( $\geq$ ) 50 ppm and therefore would be managed as such. CRCOG has directed Tighe & Bond to use the assumed method, the paints, caulking, and window glazing compound will be handled and disposed of as a Toxic Substances Control Act (TSCA) Bulk Product Waste with assumed PCB concentrations  $\geq$ 50 ppm. Eleven types of assumed materials were observed, window frame caulk, window glazing compound, door frame caulk, wall panel caulk, glass block caulk, gray/black paint on concrete columns, light gray paint on metal panels, multiple types of window component paint, multiple types of door component paint, beige soffit/cornice paint, and light gray paint on wood portico components.

# **Findings and Conclusions**

### **Asbestos Sampling Results**

During the course of the sampling, a total of 26 bulk samples of suspect ACM were collected, 25 of which were analyzed by PLM based on the "stop on first positive" request from the laboratory. EPA defines any material containing more than 1% asbestos as an asbestos containing material. Of the materials sampled, the following materials were determined to be asbestos-containing:

- Brown Wood Window Frame Caulk Main Building
- Black Residual Wall Flashing South Façade

The previous Eagle report determined the following materials to be asbestos-containing:

- Flashing Felts at Chimney Main Roof
- Flashing Tar Lower Roof
- Flashing Tar Lower Roof Edges
- Tan Wall Panel Caulk South Facade
- Yellow Door Frame Caulk East Elevation

Refer to Table 1 for a summary of asbestos containing materials identified and locations. Refer to Table 2 for a summary of non-asbestos containing materials. Laboratory analytical reports for asbestos sampling are provided in Appendix D.

If additional materials are encountered during upgrade activities that were not previously sampled then they would need to be sampled to determine if it is an asbestos containing material or should be assumed to be asbestos containing.

All regulated friable and non-friable ACM must be removed prior to renovation or demolition activities. A State of Connecticut Licensed Asbestos Abatement Contractor must be retained to perform removal work. Visual inspections must be performed within each abatement area at the completion of the abatement work. The visual inspection must be performed by a State of Connecticut Licensed Asbestos Project Monitor. The abatement areas must meet final visual inspection criteria prior to renovation or demolition activities. Re-occupancy air monitoring is required before any entry of any person into the work area.

The Asbestos Abatement Contractor must submit a notice of asbestos abatement to the State of Connecticut Department of Health post marked or hand delivered 10 days prior to the commencement of any asbestos abatement activities involving the abatement of greater than 10 linear feet or 25 square feet of asbestos containing materials.





### **Lead-Based Paint Sampling Results**

Refer to Table 3 for a detailed list of paint chip sample results. Laboratory analytical reports for paint chip sampling are provided in Appendix E.

A total of six samples were collected during the lead-based paint screen of the target area. Lead-based paint is typically defined as containing greater than 5,000 milligrams per kilogram (mg/Kg) of lead.

• The paints on the wood soffit/cornice, concrete columns, and wood portico components were determined to above 5,000 mg/Kg of lead.

Note: The window component paint sample was found below 5,000 mg/kg of lead but the previous report from Eagle in 2003 describes the interior portions of the window sashes as having lead-based paint via x-ray fluorescence (XRF) testing.

Due to the presence of lead based paint, one sample was collected from the painted wood windows, brick and mortar on walls, plywood behind metal panels, and painted items from the exterior and submitted to Phoenix Laboratories of Manchester, CT for lead analysis using Toxicity Characterization Leaching Procedure (TCLP) and methods SW6010, SW3005 and EPA 1311.

EPA and State regulations define a lead waste stream as hazardous if lead leaches out of the material(s) during the testing process at a rate of 5 milligrams per liter (mg/L) or greater. The TCLP results for the lead-based painted wood windows indicate that lead leached out of the composited waste materials at a rate of 0.38 mg/L. Therefore, the proposed renovation areas of the window sashes, wall panels, brick openings and painted items can be considered non-lead hazardous waste but it is important to keep in mind that the window caulk is asbestos-containing and all painted components are assumed PCB containing ( $\geq$ 50 ppm).

US Occupational Safety and Health Administration (OSHA) requires task specific worker exposure monitoring for any abatement activities that disturb lead-based paints. If surfaces identified to contain lead-based paints will be impacted by cutting, grinding, scraping or other dust generating activities a task specific worker exposure assessment must be conducted by the abatement contractor in accordance with OSHA 29 CRF 1926.62 to confirm lead dust is not being generated.

The laboratory analytical report for the lead-based TCLP sampling is provided in Appendix E.

#### **PCB Recommendations**

Refer to Table 4 for a detailed list of materials which were observed at the site that are assumed to have PCB concentrations  $\geq 50$  ppm. The façade paints, caulking and window glazing compound are assumed to contain PCBs. Using the assumed method, the following materials should be handled and disposed a Toxic Substances Control Act (TSCA) Bulk Product Waste with assumed PCB concentrations greater than or equal to  $\geq 50$  ppm:

- Window Frame Caulk
- Window Glazing Compound
- Door Frame Caulk
- Wall Panel Caulk
- Glass Block Caulk
- Gray/Black Paint on Concrete Columns

- Light Gray Paint on Metal Panels
- Multiple Types of Window Component Paint
- Multiple Types of Door Component Paint
- Beige Soffit/Cornice Paint
- Light Gray Paint on Wood Portico Components
- Window Glazing Compound





Since PCB concentrations are assumed to be greater than or equal to  $\geq$ 50 ppm, the following tasks are recommended in association with the proposed façade renovations:

- Abatement of PCB containing source materials (e.g. caulks, paints and glazing compound)
- Handled and Disposed per EPA regulations (40 CFR Part 761)
- 3rd Party Project Oversight including "Pre" and "Post" Visual Inspections
- Provide proper waste documents of disposal / transportation (e.g. waste shipment records and waste manifests)

Source materials containing PCBs at concentrations  $\geq 50$  ppm are regulated by EPA and the Connecticut Department of Energy and Environmental Protection (CTDEEP). Materials at concentrations greater than 1 ppm are regulated by the Connecticut Department of Energy and Environmental Protection (CTDEEP). Materials with PCB concentrations less than 1 ppm are not regulated and can be disposed of as general construction waste. The materials observed during this inspection are assumed to be  $\geq 50$  ppm.

Tighe & Bond was not provided with a full detailed set of architectural plans for the renovations. Therefore, we will not be able to generate an opinion of probable abatement cost until the full renovation plans are available.

If you have any questions regarding this letter report, please contact me at (860)704-4761 or jtolsen@tighebond.com.

Very truly yours,

TIGHE & BOND, INC.

hilip C. Hutter

Philip C, Hutter

**Project Compliance Specialist** 

James T. Olsen, LEP Vice President

Enclosures: Appendix A - Inspector License

Appendix B - Photographic Log

Appendix C - Table 1 Summary of Asbestos Containing Materials

Table 2 Summary of Non-Asbestos Containing Materials Table 3 Summary of Lead Paint Chip Sample Results

Table 4 Summary of PCB Assessment and Assumed Materials

Appendix D - EMSL Asbestos Laboratory Analytical Report

Appendix E - Phoenix Lead Laboratory Analytical Report







THIS IS TO CERTIFY THAT

# Philip C. Hutter

ATTENDED AND SUCCESSFULLY PASSED AN EXAMINATION FOR THE COURSE:



# 4-Hour Asbestos Inspector Refresher Training Course

on

**NOVEMBER 25, 2014** 

THE COURSE AND EXAMINATION LOCATION WAS:

1141 JEFFERSON GREEN CIRCLE MIDLOTHIAN, VIRGINIA 23113

THIS CERTIFICATE EXPIRES ON NOVEMBER 25, 2015

Joseph T. France Training Manager

Andrew S. Richmond Principal Instructor

The Person Receiving This Certificate Has Received The Requisite Training For Asbestos Accreditation Under TSCA Title II

WALLET CARD

STATE OF CONNECTICUT DEPARTMENT OF PUBLIC HEALTH

VALIDATION NO. 03-334131

NAME
PHILIP C HUTTER
CERTIFICATE NO. CURRENT THROUGH
002264 03/31/16

LEAD INSPECTOR RISK ASSESSOR

Source Shuller, FM COMMISSIONER

# CERTIFICATE OF ACHIEVEMENT

This certifies that

# Philip Charles Hutter

3 William Street, Middlefield, CT 06455 000-00-8326

has successfully completed the

# INSPECTOR RISK ASSESSOR REFRESHER

Training Course
conducted by
Cardno ATC
73 William Franks Drive
West Springfield, MA 01089
(413) 781-0070

Regional Training Director

Training received complies with the requirements of the Connecticut Department of Public Health pursuant to Section 2 477 of the Connecticut General Statutes.

Certificate Number

September 30, 2016 Expiration Date September 30, 2015

CTLIRAR-400

Principal Instructor:
September 30, 2015
Date of Course

# **Photographic Log**

Tighe&Bond

Client: Capitol Region Council of Governments Job Number: C-1077-3

Site: Citizens Block 28-36 Park Place, Vernon, CT

Photograph No.: 1 Date: 11/6/15

**Description:** East Elevation Portico with Gray Paint (Lead-based and assumed PCB Containing)



Photograph No.: 2 Date: 11/6/15

**Description:** Window (Assumed PCB containing paint, caulk, glazing), Asbestos-containing Caulk



# **Photographic Log**

Tighe&Bond

Client: Capitol Region Council of Governments Job Number: C-1077-3

Site: Citizens Block 28-36 Park Place, Vernon, CT

Photograph No.: 3 Date: 11/6/15

**Description:** Concrete Column Gray Paint (Lead-based and assumed PCB Containing)



Photograph No.: 4 Date: 11/6/15

**Description:** Rear Soffit and Fascia Paint (Lead-based and assumed PCB containing)



# **Photographic Log**

Tighe&Bond

Client: Capitol Region Council of Governments Job Number: C-1077-3

Site: Citizens Block 28-36 Park Place, Vernon, CT

Photograph No.: 5 Date: 11/6/15

**Description:** Wall Panels with Caulk (Asbestos-containing and assumed PCB containing)



Photograph No.: 6 Date: 11/6/15

**Description:** Wall Panel Paint (Assumed PCB containing)



# **Photographic Log**

Tighe&Bond

**Job Number:** C-1077-3

**Client:** Capitol Region Council of Governments

Site: Citizens Block 28-36 Park Place, Vernon, CT

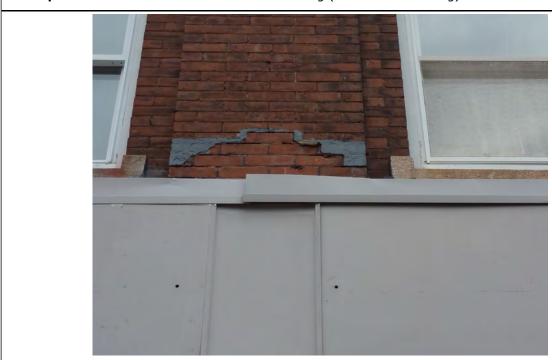
Photograph No.: 7 Date: 11/6/15

**Description:** Rear Door with Caulk and Paint (Assumed PCB Paint/Caulk), Asbestos-containing Caulk



**Photograph No.:** 8 **Date:** 11/6/15

**Description:** East Elevation—Residual Roof Flashing (asbestos-containing)



# **Photographic Log**

Tighe&Bond

**Job Number:** C-1077-3

**Client:** Capitol Region Council of Governments

Site: Citizens Block 28-36 Park Place, Vernon, CT

Photograph No.: 9 Date: 11/6/15

**Description:** Rear Addition— Caulk and Glazing (Assumed PCB Containing / Non-asbestos)



**Photograph No.:** 10 **Date:** 11/6/15

**Description:** East Elevation—Assumed PCBs in all Paints, Caulks and Glazings



# **Photographic Log**

Tighe&Bond

**Job Number:** C-1077-3

Client: Capitol Region Council of Governments

Site: Citizens Block 28-36 Park Place, Vernon, CT

Photograph No.: 11 Date: 11/6/15

**Description:** South Elevation—Assumed PCBs in all paints, caulks and glazings



Photograph No.: 12 Date: 11/6/15

**Description:** West Elevation— Assumed PCBs in all paints, caulks and glazings



# **Photographic Log**

Tighe&Bond

**Job Number:** C-1077-3

**Client:** Capitol Region Council of Governments

Site: Citizens Block 28-36 Park Place, Vernon, CT

Photograph No.: 13 Date: 11/6/15

**Description:** Alley / North Elevation—No proposed work to be performed



Photograph No.: 14 Date: 11/6/15

**Description:** Rear entrances and windows (Assumed PCBs in paints, caulks and glazings)



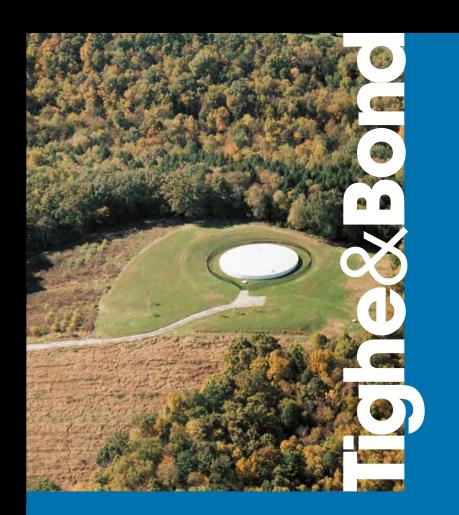


TABLE 1 Summary of Asbestos Containing Materials Citizen's Block 28-36 Park Place Vernon, CT

Asbestos Sampling Date: November 6, 2015

| Sample ID                   | Material                            | Color               | Sample Location                | Approximate<br>Quantity | Result                            |
|-----------------------------|-------------------------------------|---------------------|--------------------------------|-------------------------|-----------------------------------|
| 11-06-PCH-09                | Black Wall/Residual Roof            | Black               | Front Former                   |                         | None Detected                     |
| 11-06-PCH-10                | Flashing                            | DIACK               | Overhang Roof<br>Portions      | <10 LF                  | 2.6% Chrysotile<br>(TEM Analysis) |
| 11-06-PCH-13                | Wood Window Frame                   | Main Building - All |                                | 928 LF                  | 4% Chrysotile                     |
| 11-06-PCH-14                | Caulk Brown Windows                 |                     | Windows                        | 920 LF                  | Stop Positive<br>(Not Analyzed)   |
| Eagle Report 6-<br>23-CC-49 | Flashing Felts at<br>Chimney        | Black               | Main Roof                      | 4 @ 4 SF Each           | 26% Chrysotile                    |
| Eagle Report 6-<br>23-CC-50 | Flashing Tar                        | Black               | Lower Roof                     | 33 LF                   | 6% Chrysotile                     |
| Eagle Report 6-<br>23-CC-51 | Flashing Tar at Lower<br>Roof Edges | Black               | Throughout                     | Not quantified          | 7% Chrysotile                     |
| Eagle Report 6-<br>23-CC-54 | Caulk at Panels                     | Tan                 | Façade A<br>(South Elevation)  | 200 LF                  | 7% Chrysotile                     |
| Eagle Report 6-<br>23-CC-56 | Caulk at Door                       | Yellow              | Exterior D<br>(East Elevation) | 17 LF                   | 12% Chrysotile                    |

# **LEGEND**

Asbestos Containing Material = < 1% Asbestos

LF = Linear Foot

SF= Square Foot

**TABLE 2**Summary of Non-Asbestos Containing Materials
Citizen's Block
28-36 Park Place
Vernon, CT

Asbestos Sampling Date: November 6, 2015

| Sample ID                   | Material                          | Color                 | Location(s)  | Result        |
|-----------------------------|-----------------------------------|-----------------------|--|---------------|
| 11-06-PCH-01 to<br>02       | Glass Block Caulk                 | White/Black           | West Elevation   | None Detected |
| 11-06-PCH-03 to<br>04       | Glass Block/Brick Mortar          | Gray                  | West Elevation   | None Detected |
| 11-06-PCH-05 to<br>06       | Column Paint                      | Light Gray /<br>Black | Concrete Columns<br>(South Elevation)                      | None Detected |
| 11-06-PCH-07 to<br>08       | Wall Panel Paint                  | Light Gray /<br>Red   | Wall Panels<br>(South Elevation)                           | None Detected |
| 11-06-PCH-11 to<br>12       | Portico Paint                     | Light Gray            | Front Portico<br>(South Elevation)                         | None Detected |
| 11-06-PCH-15 to<br>16       | Wood Window Glazing<br>Compound   | White                 | All Wood Windows   | None Detected |
| 11-06-PCH-17 to<br>18       | Wood Window Paint                 | White                 | All Wood Windows   | None Detected |
| 11-06-PCH-19 to<br>20       | Cornice/Soffit Paint              | Beige                 | All Elevations   | None Detected |
| 11-06-PCH-21 to<br>22       | White Replacement Window<br>Caulk | White                 | North Elevation (West<br>Windows on 2nd and<br>3rd Floors) | None Detected |
| 11-06-PCH-23 to<br>24       | Wood Window Frame Caulk           | White                 | Addition Windows   | None Detected |
| 11-06-PCH-25 to<br>26       | Wood Window Glazing<br>Compound   | White                 | Addition Windows   | None Detected |
| Eagle Report 6-<br>23-CC-48 | Tar on felts at Chimney           | Black                 | Main Roof  | None Detected |
| Eagle Report 6-<br>23-CC-52 | Rolled Asphalt                    | Black                 | Lower Roof   | None Detected |
| Eagle Report 6-<br>23-CC-53 | Rubberized Seals at corner panels | Black                 | Exterior B<br>(South Elevation)                            | None Detected |
| Eagle Report 6-<br>23-CC-55 | Door Frame Caulk                  | White                 | Rear Door  | None Detected |

**TABLE 2**Summary of Non-Asbestos Containing Materials
Citizen's Block
28-36 Park Place
Vernon, CT

| Sample ID                   | Material                        | Color | Location(s)           | Result        |
|-----------------------------|---------------------------------|-------|-----------------------|---------------|
| Eagle Report 6-<br>23-CC-11 | Hard Window Glazing<br>Compound | White | Main Building Windows | None Detected |

# **LEGEND**

Asbestos Containing Material = < 1% Asbestos

TABLE 3
Summary of Lead Paint-Chip Sampling Results
Citizen's Block
28-36 Park Place
Vernon, CT

Lead Paint-Chip Sampling Date: November 6, 2015

| ID          | Location                   | Component  | Paint Color    | Substrate | Result<br>(mg/Kg) |
|-------------|----------------------------|------------|----------------|-----------|-------------------|
| 11-06-PB-01 | Exterior - South<br>Façade | Column     | Gray/Black     | Concrete  | 7,270             |
| 11-06-PB-02 | Exterior - South<br>Façade | Wall Panel | Light Gray/Red | Metal     | 149               |
| 11-06-PB-03 | Exterior - South<br>Façade | Wall Panel | Light Gray     | Metal     | 441               |
| 11-06-PB-04 | Exterior - South<br>Façade | Window     | White          | Wood      | 1,600             |
| 11-06-PB-05 | Exterior - North<br>Façade | Soffit     | Beige/White    | Wood      | 305,000           |
| 11-06-PB-06 | Exterior - South<br>Façade | Portico    | Light Gray     | Wood      | 134,000           |

# **LEGEND**

Bolded Result = Paint considered "Lead-based" (≥ 5,000 mg/Kg)

ND<# = None detected above given laboratory limit

mg/Kg = milligrams per Kilogram

TABLE 4
Summary of PCB Asssessment and Assumed Materials
Citizen's Block
28-36 Park Place
Vernon, CT

| Description                                    | Location  | Aroclor # | Result (ppm)                   | Notes   |
|--|---|-----------|--------------------------------|---|
| Window Frame Caulk<br>(All Colors)             | All Windows                                       | N/A       | Assumed PCB Containing ≥50 ppm | Approximately 68 Windows; 1,088 LF                            |
| Window Glazing Compound<br>(All Colors)        | Non-replacement<br>Windows                        | N/A       | Assumed PCB Containing ≥50 ppm | Approximately 51 non-replacement<br>windows; 1,224 LF         |
| Door Frame Caulk<br>(All Colors)               | All Entrances on<br>South and North<br>Elevations | N/A       | Assumed PCB Containing ≥50 ppm | Approximately 10 Doors; 176 LF                                |
| Wall Panel Caulk<br>(All Colors)               | South Elevation                                   | N/A       | Assumed PCB Containing ≥50 ppm | Approximately 320 LF  |
| Glass Block Caulk (White)                      | West Elevation                                    | N/A       | Assumed PCB Containing ≥50 ppm | Approximately 27 LF   |
| Light Gray Paint on Metal Wall<br>Panels       | South Elevation                                   | N/A       | Assumed PCB Containing ≥50 ppm | Approximately 800 SF  |
| Gray/Black Paint on Concrete<br>Columns        | South Elevation                                   | N/A       | Assumed PCB Containing ≥50 ppm | Approximate 800 SF<br>(Assumed behind Metal Wall Panels also) |
| Window Component Paint<br>(All Colors)         | All Painted<br>Windows                            | N/A       | Assumed PCB Containing ≥50 ppm | Approximately 816 SF  |
| Door Component Paint<br>(All Colors)           | All Painted Doors                                 | N/A       | Assumed PCB Containing ≥50 ppm | Approximately 210 SF  |
| Beige Soffit/Cornice Paint                     | All Elevations                                    | N/A       | Assumed PCB Containing ≥50 ppm | Approximately 710 SF  |
| Light Gray Paint on Wood<br>Portico Components | South Elevation                                   | N/A       | Assumed PCB Containing ≥50 ppm | Approximately 20 SF   |

# **LEGEND**

**Bolded** and boxed = Assumed greater than or equal to ( ) 50 ppm



# **EMSL** Analytical, Inc.

29 North Plains Highway, Unit # 4 Wallingford, CT 06

Tel/Fax: (203) 284-5948 / (203) 284-5978

http://www.EMSL.com / wallingfordlab@emsl.com

EMSL Order: 241504952 Customer ID: TIGH62

<u>Asbestos</u>

Customer PO: Project ID:

Attention:Phillip HutterPhone:(860) 704-4760

Tighe & Bond Fax: (860) 704-4775
213 Court Street Received Date: 11/ 6/2015 12:45 PM

 Suite 900
 Analysis Date:
 11/13/2015

 Middletown, CT 06457
 Collected Date:
 11/ 6/2015

Project: 12-1077/CITIZENS BLOCK

# Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Non-Asbestos

|                                |   |  | NOIT-ASDE      | 5105                                  | ASDESIOS                     |
|--------------------------------|---|--|----------------|---------------------------------------|------------------------------|
| Sample                         | Description   | Appearance                             | % Fibrous      | % Non-Fibrous                         | % Type                       |
| 11-06-PCH-01                   | 1st floor south -<br>white/black glass                    | White/Black<br>Non-Fibrous             |                | 100% Non-fibrous (Other)              | None Detected                |
| 241504952-0001                 | block caulk   | Homogeneous                            |                |                                       |                              |
| 11-06-PCH-02                   | 1st floor south -<br>white/black glass                    | Gray/White<br>Non-Fibrous              |                | 100% Non-fibrous (Other)              | None Detected                |
| 241504952-0002                 | block caulk   | Homogeneous                            |                |                                       |                              |
| 11-06-PCH-03                   | 1st floor south - gray<br>block/brick mortar              | Gray<br>Non-Fibrous                    |                | 10% Quartz<br>90% Non-fibrous (Other) | None Detected                |
| 241504952-0003                 | 4.40  | Homogeneous                            |                | 050/ 0                                |                              |
| 11-06-PCH-04                   | 1st floor south - gray<br>block/brick mortar              | Gray<br>Non-Fibrous                    |                | 25% Quartz<br>75% Non-fibrous (Other) | None Detected                |
| 241504952-0004                 |   | Homogeneous                            | 40/ 0 !! !     | 1000/ N 51 (011 )                     |                              |
| 11-06-PCH-05                   | (column on concrete)<br>front - light gray/black          | Gray<br>Non-Fibrous                    | <1% Cellulose  | 100% Non-fibrous (Other)              | None Detected                |
| 241504952-0005                 | paint   | Homogeneous                            | 440/ Callulana | 4000/ Non-Ebrasia (Other)             | None Detected                |
| 11-06-PCH-06<br>241504952-0006 | (column on concrete)<br>front - light gray/black<br>paint | Gray<br>Non-Fibrous<br>Homogeneous     | <1% Cellulose  | 100% Non-fibrous (Other)              | None Detected                |
|                                | •   |  | <10/ Collulado | 1000/ Non fibrage (Other)             | None Detected                |
| 11-06-PCH-07<br>241504952-0007 | By 28 park - light<br>gray/red wall paint                 | Gray/Red<br>Non-Fibrous                | <1% Cellulose  | 100% Non-fibrous (Other)              | None Detected                |
|                                | D. 20 seek liebt  | Homogeneous                            |                | 4000/ Non-Ebrasia (Other)             | None Detected                |
| 11-06-PCH-08<br>241504952-0008 | By 30 park - light<br>gray/red wall paint                 | Gray/Red<br>Non-Fibrous<br>Homogeneous |                | 100% Non-fibrous (Other)              | None Detected                |
| 11-06-PCH-09                   | East elevation - black                                    | Black                                  | 15% Glass      | 85% Non-fibrous (Other)               | None Detected                |
| 241504952-0009                 | wall/resisual roof<br>flashing                            | Fibrous<br>Homogeneous                 | 13 /0 Glass    | 03 /6 NOTI-IIDIOUS (Ottlet)           | None Detected                |
| 11-06-PCH-10                   | East elevation - black                                    | Black                                  | <1% Synthetic  | 95% Non-fibrous (Other)               | <1% Chrysotile               |
| 241504952-0010                 | wall/resisual roof<br>flashing                            | Fibrous<br>Homogeneous                 | 5% Glass       | 95 /6 NOTHIDIOUS (Other)              | 176 Chrysothe                |
| 11-06-PCH-11                   | Front portico - light                                     | Gray/Tan<br>Non-Fibrous                | 5% Cellulose   | 95% Non-fibrous (Other)               | None Detected                |
| 241504952-0011                 | gray paint  | Homogeneous                            |                |                                       |                              |
| 11-06-PCH-12                   | Front portico - light<br>gray paint                       | Gray/Tan<br>Non-Fibrous                |                | 100% Non-fibrous (Other)              | None Detected                |
| 241504952-0012                 | 3 - 7   | Homogeneous                            |                |                                       |                              |
| 11-06-PCH-13                   | East elev. 2nd fl -<br>white wood window                  | Brown<br>Non-Fibrous                   |                | 96% Non-fibrous (Other)               | 4% Chrysotile                |
| 241504952-0013                 | frame caulk   | Homogeneous                            |                |                                       |                              |
| 11-06-PCH-14                   | East elev. 3rd fl<br>white wood window                    |  |                |                                       | Stop Positive (Not Analyzed) |
| 241504952-0014                 | frame caulk   |  |                |                                       |                              |
| 11-06-PCH-15                   | East elev. 2nd fl -<br>white wood window                  | White<br>Non-Fibrous                   |                | 100% Non-fibrous (Other)              | None Detected                |
| 241504952-0015                 | glazing compound  | Homogeneous                            |                |                                       |                              |
| 11-06-PCH-16                   | East elev. 3rd fl white wood window                       | White<br>Non-Fibrous                   |                | 100% Non-fibrous (Other)              | None Detected                |
| 241504952-0016                 | glazing compound  | Homogeneous                            |                |                                       |                              |

Report amended: 11/19/2015 17:06:28 Replaces initial report from: 11/13/2015 11:00:32 Reason Code: Client-Change to Appearance

PLM - 1.65 Printed: 11/19/2015 5:07 PM Page 1 of 2



# **EMSL** Analytical, Inc.

29 North Plains Highway, Unit # 4 Wallingford, CT 06

Tel/Fax: (203) 284-5948 / (203) 284-5978

http://www.EMSL.com / wallingfordlab@emsl.com

EMSL Order: 241504952 Customer ID: TIGH62

Customer PO: Project ID:

# Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

|                                |  |   | <u>s</u>           | <u>Asbestos</u>          |               |
|--------------------------------|--|---|--------------------|--------------------------|---------------|
| Sample                         | Description  | tion Appearance % Fibrous % Non-Fibrous |                    | % Non-Fibrous            | % Type        |
| white wood window N            |  | White<br>Non-Fibrous<br>Homogeneous     |                    | 100% Non-fibrous (Other) | None Detected |
| 11-06-PCH-18<br>241504952-0018 | East elev. 3rd fl<br>white wood window<br>paint          | White<br>Non-Fibrous<br>Homogeneous     | <1% Cellulose      | 100% Non-fibrous (Other) | None Detected |
| 11-06-PCH-19<br>241504952-0019 | South elev beige cornice/soffit paint                    | White Non-Fibrous Homogeneous           | <1% Cellulose      | 100% Non-fibrous (Other) | None Detected |
| 11-06-PCH-20<br>241504952-0020 | West elev beige cornice/soffit paint                     | White<br>Non-Fibrous<br>Homogeneous     | <1% Cellulose      | 100% Non-fibrous (Other) | None Detected |
| 11-06-PCH-21<br>241504952-0021 | West elev. 3rd fl -<br>white replacement<br>window caulk | White<br>Non-Fibrous<br>Homogeneous     | 3% Fibrous (Other) | 97% Non-fibrous (Other)  | None Detected |
| 11-06-PCH-22<br>241504952-0022 | West elev. 3rd fl -<br>white replacement<br>window caulk | White<br>Non-Fibrous<br>Homogeneous     | 2% Fibrous (Other) | 98% Non-fibrous (Other)  | None Detected |
| 11-06-PCH-23<br>241504952-0023 | Addition west - white wood window frame caulk            | White<br>Non-Fibrous<br>Homogeneous     | 3% Fibrous (Other) | 97% Non-fibrous (Other)  | None Detected |
| 11-06-PCH-24<br>241504952-0024 | Addition west - white wood window frame caulk            | White<br>Non-Fibrous<br>Homogeneous     | 2% Fibrous (Other) | 98% Non-fibrous (Other)  | None Detected |
| 11-06-PCH-25<br>241504952-0025 | Addition west - white wood window glazing compound       | White<br>Non-Fibrous<br>Homogeneous     |                    | 100% Non-fibrous (Other) | None Detected |
| 11-06-PCH-26<br>241504952-0026 | Addition west - white wood window glazing compound       | White<br>Non-Fibrous<br>Homogeneous     |                    | 100% Non-fibrous (Other) | None Detected |

Analyst(s)

Jeremy Patino (1) Kristin Lopez (13) William Shedrawy (11) Gloria V. Oriol, Laboratory Manager or Other Approved Signatory

EMSL maintains liability limited to cost of analysis. This report relates only to the samples reported and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. Interpretation and use of test results are the responsibility of the client. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST or any agency of the federal government. Non-friable organically bound materials present a problem matrix and therefore EMSL recommends gravimetric reduction prior to analysis. Samples received in good condition unless otherwise noted. Estimated accuracy, precision and uncertainty data available upon request. Unless requested by the client, building materials manufactured with multiple layers (i.e. linoleum, wallboard, etc.) are reported as a single sample. Reporting limit is 1%

Samples analyzed by EMSL Analytical, Inc. Wallingford, CT NVLAP Lab Code 200700-0,

Report amended: 11/19/2015 17:06:28 Replaces initial report from: 11/13/2015 11:00:32 Reason Code: Client-Change to Appearance



# **EMSL Analytical, Inc.**

29 North Plains Highway, Unit # 4, Wallingford, CT 06492

203-284-5948 / (203) 284-5978 Phone/Fax:

wallingfordlab@emsl.com http://www.EMSL.com

EMSL Order: CustomerID:

241504952

TIGH62

CustomerPO: ProjectID:

**Phillip Hutter** Tighe & Bond 213 Court Street Suite 900 Middletown, CT 06457

Project: 12-1077/CITIZENS BLOCK

Phone: (860) 704-4760 (860) 704-4775 Fax: Received: 11/06/15 12:45 PM

11/19/2015 Analysis Date: Collected: 11/6/2015

# Test Report: Asbestos Analysis of Non-Friable Organically Bound Materials by TEM via EPA/600/R-93/116 Section 2.5.5.1

| SAMPLE ID      | DESCRIPTION                 | APPEARANCE  | % MATRIX<br>MATERIAL | % NON-ASBESTOS<br>FIBERS | ASBESTOS<br>TYPES |
|----------------|-----------------------------|-------------|----------------------|--------------------------|-------------------|
| 11-06-PCH-10   | East elevation - black      | Black       | 97.4                 | None                     | 2.6% Chrysotile   |
| 241504952-0010 | wall/resisual roof flashing | Fibrous     |                      |                          |                   |
|                |                             | Homogeneous |                      |                          |                   |

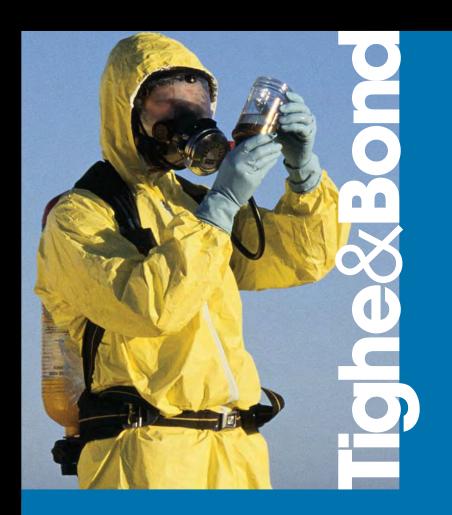
Analyst(s) William Shedrawy (1)

> Gloria V. Oriol, Laboratory Manager or other approved signatory

This laboratory is not responsible for % asbestos in total sample when the residue only is submitted for analysis. The above report relates only to the items tested. This report may not be reproduced, except in full, without written approval by EMSL Analytical, Inc. Samples received in good condition unless otherwise noted. Unless requested by the client, building materials manufactured with multiple layers (i.e. linoleum, wallboard, etc.) are reported as a single sample.

Samples analyzed by EMSL Analytical, Inc. Wallingford, CT

Report Amended: 11/19/2015 17:06:28 Replaces the Inital Report 11/13/2015 11:00:32. Reason Code: Client-Change to Appearance





Thursday, November 12, 2015

Attn: Mr. Phillip Hutter Tighe & Bond 213 Court St, Suite 1100 Middletown, CT 06457

Project ID: CITIZENS BLOCK VERNON

Sample ID#s: BK19345 - BK19350

This laboratory is in compliance with the NELAC requirements of procedures used except where indicated.

This report contains results for the parameters tested, under the sampling conditions described on the Chain Of Custody, as received by the laboratory.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

A scanned version of the COC form accompanies the analytical report and is an exact duplicate of the original.

If you have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext. 200.

Sincerely yours,

Phyllis/Shiller

**Laboratory Director** 

NELAC - #NY11301 CT Lab Registration #PH-0618 MA Lab Registration #MA-CT-007 ME Lab Registration #CT-007 NH Lab Registration #213693-A,B NJ Lab Registration #CT-003 NY Lab Registration #11301 PA Lab Registration #68-03530 RI Lab Registration #63 VT Lab Registration #VT11301



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

November 12, 2015

FOR: Attn: Mr. Phillip Hutter

Tighe & Bond

213 Court St, Suite 1100 Middletown, CT 06457

| Sample Information Custody Inform |          | <u>nation</u> <u>Date</u> |                | <u>Time</u> |       |
|-----------------------------------|----------|---------------------------|----------------|-------------|-------|
| Matrix:                           | BULK     | Collected by:             | PCH            | 11/06/15    |       |
| Location Code:                    | TIGHE    | Received by:              | LB             | 11/06/15    | 11:36 |
| Rush Request:                     | Standard | Analyzed by:              | see "By" below |             |       |

Rush Request: Standard Analyzed by:

P.O.#: 12-1077

aboratory Data SDG ID: GBK19345

Phoenix ID: BK19345

CITIZENS BLOCK VERNON Project ID:

11-06-PB-01 Client ID:

| Parameter                   | Result            | RL/<br>PQL | Units | Dilution | Date/Time            | Ву         | Reference          |
|-----------------------------|-------------------|------------|-------|----------|----------------------|------------|--------------------|
| Lead<br>Total Metals Digest | 7270<br>Completed | 190        | mg/Kg | 100      | 11/09/15<br>11/06/15 | LK<br>G/AG | SW6010C<br>SW3050B |

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

# Comments:

Results are reported on an ``as received`` basis, and are not corrected for dry weight.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200. This report must not be reproduced except in full as defined by the attached chain of custody.

Phyllis Shiller, Laboratory Director

November 12, 2015

Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Ver 1 Page 1 of 6



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

November 12, 2015

FOR: Attn: Mr. Phillip Hutter

Tighe & Bond

213 Court St, Suite 1100 Middletown, CT 06457

<u>Sample Information</u> <u>Custody Information</u> <u>Date</u> <u>Time</u>

Matrix: BULK Collected by: PCH 11/06/15

Location Code: TIGHE Received by: LB 11/06/15 11:36

Rush Request: Standard Analyzed by: see "By" below

P.O.#: 12-1077

aboratory Data SDG ID: GBK19345

Phoenix ID: BK19346

Project ID: CITIZENS BLOCK VERNON

Client ID: 11-06-PB-02

RL/ Parameter Date/Time Result **PQL** Units Dilution By Reference 11/07/15 SW6010C Lead 149 1.8 mg/Kg 1 LK Completed 11/06/15 G/AG SW3050B **Total Metals Digest** 

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

# Comments:

Results are reported on an ``as received`` basis, and are not corrected for dry weight.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

This report must not be reproduced except in full as defined by the attached chain of custody.

Phyllis Shiller, Laboratory Director

November 12, 2015

Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Page 2 of 6 Ver 1



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

November 12, 2015

FOR: Attn: Mr. Phillip Hutter

Tighe & Bond

213 Court St, Suite 1100 Middletown, CT 06457

| Sample Information |       | Custody Informat | <u>tion</u> | <u>Date</u> | <u>Time</u> |
|--------------------|-------|------------------|-------------|-------------|-------------|
| Matrix:            | BULK  | Collected by:    | PCH         | 11/06/15    |             |
| Location Code:     | TIGHE | Received by:     | LB          | 11/06/15    | 11:36       |

Rush Request: Standard Analyzed by: see "By" below

P.O.#: 12-1077

\_aboratory Data SDG ID: GBK19345

Phoenix ID: BK19347

Project ID: CITIZENS BLOCK VERNON

Client ID: 11-06-PB-03

| Parameter                   | Result           | RL/<br>PQL | Units | Dilution | Date/Time            | Ву         | Reference          |
|-----------------------------|------------------|------------|-------|----------|----------------------|------------|--------------------|
| Lead<br>Total Metals Digest | 441<br>Completed | 2.5        | mg/Kg | 1        | 11/07/15<br>11/06/15 | LK<br>G/AG | SW6010C<br>SW3050B |

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

# **Comments:**

Results are reported on an ``as received`` basis, and are not corrected for dry weight.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200. This report must not be reproduced except in full as defined by the attached chain of custody.

Phyllis Shiller, Laboratory Director

November 12, 2015

Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Page 3 of 6 Ver 1



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

November 12, 2015

FOR: Attn: Mr. Phillip Hutter

Tighe & Bond

213 Court St, Suite 1100 Middletown, CT 06457

Sample InformationCustody InformationDateTimeMatrix:BULKCollected by:PCH11/06/15Location Code:TIGHEReceived by:LB11/06/1511:36

Rush Request: Standard Analyzed by: see "By" below

P.O.#: 12-1077

Laboratory Data SDG ID: GBK19345

Phoenix ID: BK19348

Project ID: CITIZENS BLOCK VERNON

Client ID: 11-06-PB-04

RL/ Parameter **PQL** Result Units Dilution Date/Time By Reference 11/09/15 SW6010C Lead 1600 21 mg/Kg 10 LK Completed 11/06/15 G/AG SW3050B **Total Metals Digest** 

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

# Comments:

Results are reported on an ``as received`` basis, and are not corrected for dry weight.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200. This report must not be reproduced except in full as defined by the attached chain of custody.

Phyllis Shiller, Laboratory Director

November 12, 2015

Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Page 4 of 6 Ver 1



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

November 12, 2015

FOR: Attn: Mr. Phillip Hutter

Tighe & Bond

213 Court St, Suite 1100 Middletown, CT 06457

<u>Sample Information</u> <u>Custody Information</u> <u>Date</u> <u>Time</u>

Matrix: BULK Collected by: PCH 11/06/15

Location Code: TIGHE Received by: LB 11/06/15 11:36

Rush Request: Standard Analyzed by: see "By" below

P.O.#: 12-1077

\_aboratory Data SDG ID: GBK19345

Phoenix ID: BK19349

Project ID: CITIZENS BLOCK VERNON

Client ID: 11-06-PB-05

RL/

| Parameter Res                        | ult PQL | Units | Dilution | Date/Time            | Ву         | Reference          |  |
|--------------------------------------|---------|-------|----------|----------------------|------------|--------------------|--|
| Lead 3050 Total Metals Digest Comple |         | mg/Kg | 1000     | 11/09/15<br>11/06/15 | LK<br>G/AG | SW6010C<br>SW3050B |  |

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

# Comments:

Results are reported on an ``as received`` basis, and are not corrected for dry weight.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

This report must not be reproduced except in full as defined by the attached chain of custody.

Phyllis Shiller, Laboratory Director

November 12, 2015

Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Page 5 of 6 Ver 1



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

November 12, 2015

FOR: Attn: Mr. Phillip Hutter

Tighe & Bond

213 Court St, Suite 1100 Middletown, CT 06457

<u>Sample Information</u> <u>Custody Information</u> <u>Date</u> <u>Time</u>

Matrix: BULK Collected by: PCH 11/06/15

Location Code: TIGHE Received by: LB 11/06/15 11:36

Rush Request: Standard Analyzed by: see "By" below

P.O.#: 12-1077

Laboratory Data SDG ID: GBK19345

Phoenix ID: BK19350

Project ID: CITIZENS BLOCK VERNON

Client ID: 11-06-PB-06

RL/

| Parameter                   | Result              | PQL  | Units | Dilution | Date/Time            | Ву         | Reference          |
|-----------------------------|---------------------|------|-------|----------|----------------------|------------|--------------------|
| Lead<br>Total Metals Digest | 134000<br>Completed | 2100 | mg/Kg | 1000     | 11/11/15<br>11/09/15 | LK<br>G/AG | SW6010C<br>SW3050B |

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

# Comments:

Results are reported on an ``as received`` basis, and are not corrected for dry weight.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

This report must not be reproduced except in full as defined by the attached chain of custody.

Phyllis Shiller, Laboratory Director

November 12, 2015

Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Page 6 of 6 Ver 1



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

# QA/QC Report

November 12, 2015

# QA/QC Data

SDG I.D.: GBK19345

| Parameter                   | Blank  | Blk<br>RL | Sample<br>Result | Dup<br>Result | Dup<br>RPD | LCS<br>% | LCSD<br>% | LCS<br>RPD | MS<br>% | MSD<br>% | MS<br>RPD | %<br>Rec<br>Limits | %<br>RPD<br>Limits |
|-----------------------------|--------|-----------|------------------|---------------|------------|----------|-----------|------------|---------|----------|-----------|--------------------|--------------------|
| QA/QC Batch 326190 (mg/kg), | QC San | nple No:  | BK1383           | 7 (BK193      | 350)       |          |           |            |         |          |           |                    |                    |
| ICP Metals - Soil           |        |           |                  |               |            |          |           |            |         |          |           |                    |                    |
| Lead                        | BRL    | 0.33      | 17.8             | 17.0          | 4.60       | 98.5     | 112       | 12.8       | 85.2    | 88.8     | 4.1       | 75 - 125           | 30                 |
| QA/QC Batch 326047 (mg/kg), | QC San | nple No:  | BK19358          | 3 (BK193      | 345, BK    | (19346   | BK193     | 47, BK1    | 19348,  | BK1934   | 9)        |                    |                    |
| ICP Metals - Soil           |        |           |                  |               |            |          |           |            |         |          |           |                    |                    |
| Lead                        | BRL    | 0.33      | 116              | 111           | 4.40       | 103      | 103       | 0.0        | 88.9    | 83.6     | 6.1       | 75 - 125           | 30                 |

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

RPD - Relative Percent Difference

LCS - Laboratory Control Sample

LCSD - Laboratory Control Sample Duplicate

MS - Matrix Spike

MS Dup - Matrix Spike Duplicate

NC - No Criteria

Intf - Interference

Phyllis/Shiller, Laboratory Director

November 12, 2015

Thursday, November 12, 2015

# **Sample Criteria Exceedences Report**

**GBK19345 - TIGHE** 

RL Analysis SampNo Acode Phoenix Analyte Criteria Result RLCriteria Criteria Units

Criteria: None

State: CT

Phoenix Laboratories does not assume responsibility for the data contained in this report. It is provided as an additional tool to identify requested criteria exceedences. All efforts are made to ensure the accuracy of the data (obtained from appropriate agencies). A lack of exceedence information does not necessarily suggest conformance to the criteria. It is ultimately the site professional's responsibility to determine appropriate compliance.

Page 1 of 1

<sup>\*\*\*</sup> No Data to Display \*\*\*

| Cooler: Yes No C | Temp ⊖{°C Pg of                | Fax:   | ₹.                              | Project P.O: 12 - 1677 | This section MUST be | completed with  | Bottle Quantities. | 1000 100 | The state of the s | OG TUDGE TUDGE TO THE TOTAL TO | \$ 6.140.60 12 12 12 12 12 12 12 12 12 12 12 12 12 |                   |                   |           |                   |                    |                   |  |  | MAA Detrification  | GW-1 PDF      |                  | GW-3 Char               |   | S-2 Lier II Checklist S-3 Lier II Checklist Lier II Checklist | MWRA eSMART | ed: CT SURCHARGE APPLIES            |
|------------------|--------------------------------|--|---------------------------------|------------------------|----------------------|-----------------|--------------------|----------|--|--|--|-------------------|-------------------|-----------|-------------------|--------------------|-------------------|--|--|--|---------------|------------------|-------------------------|---|---|-------------|-------------------------------------|
|                  | RECORD                         |  | (860) 645-8726                  | 2 Block -Vernon        | P. H. Her            | West Fre 1d     |                    |          |  |  | 10 10 10 10 10 10 10 10 10 10 10 10 10 1           | ×                 |                   |           |                   |                    | 7                 |  |  | <br>CT Cited Exposure CT   | GW Protection | GW SW Protection | ☐ Other ☐ GA Mobility ☐ | GB Mobility                                   | Residential DEC   | Other       | State where samples were collected: |
|                  | <b>CHAIN OF CUSTODY RECORD</b> | 587 East Middle Turnpike, P.O. Box 370, Manchester, CT 06040<br>Email: info@phoenixlabs.com Fax (860) 645-0823 | Client Services (860) 6         | Project: Cof12 en s    | Report to: Physlip   | Invoice to: wes |                    | Analysis | Request //   | Prod   |  |                   | -                 |           |                   |                    | <b>→</b>          |  |  | Time:  | 0             |                  |                         | Turnaround:                                   | ∴ ray<br>□ 2 Days*  | 3 Days*     | I                                   |
|                  |                                | Motor  |                                 |                        | strek t              | CT.             |                    | 1        | Date: 11 6 11  | =Surface Water <b>WW</b> =Waste Water<br>S=Soil SD=Solid W=Wipe  | Sample Date Time<br>Matrix Sampled Sampled         | 1                 |                   |           |                   |                    | <b>→</b>          |  |  | \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\   |               | >                |                         | tions;  |   |             |                                     |
|                  |                                | PHOENIX  | Environmental Laboratories, Inc | Customer: Tight & Boad | - 1                  | <u></u>         | -                  | \        | MW   | Matrix Code:  DW=Drinking Water GW=Ground Water SW=Surface Water WW=Waste Water RW=Raw Water SE=Sediment SL=Studge S=Soil SD=Soild W=Wipe OIL=Oil B=Bulk L=Liquid  | PHOENIX USE ONLY SAMPLE # Identification           | 10-81-90-11 ShEbi | 19346 11-06-18-02 | 4-30-11 L | 19348 11.06-PB-04 | 19349 11-01 -18-05 | 19350 11-06-18-06 |  |  | Accepted by Accept | This cause    |                  |                         | Comments, Special Requirements or Regulations |   |             |                                     |



Wednesday, November 11, 2015

Attn: Mr. Phillip Hutter Tighe & Bond 213 Court St, Suite 1100 Middletown, CT 06457

Project ID: CITIZENS BLOCK VERNON

Sample ID#s: BK19351

This laboratory is in compliance with the NELAC requirements of procedures used except where indicated.

This report contains results for the parameters tested, under the sampling conditions described on the Chain Of Custody, as received by the laboratory.

A scanned version of the COC form accompanies the analytical report and is an exact duplicate of the original.

If you have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext. 200.

Sincerely yours,

Phyllis/Shiller

**Laboratory Director** 

NELAC - #NY11301 CT Lab Registration #PH-0618 MA Lab Registration #MA-CT-007 ME Lab Registration #CT-007 NH Lab Registration #213693-A,B NJ Lab Registration #CT-003 NY Lab Registration #11301 PA Lab Registration #68-03530 RI Lab Registration #63 VT Lab Registration #VT11301



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

November 11, 2015

FOR: Attn: Mr. Phillip Hutter

Tighe & Bond

213 Court St, Suite 1100 Middletown, CT 06457

| Sample Informat | <u>ion</u> | Custody Information | <u>Date</u> | <u>l ime</u> |
|-----------------|------------|---------------------|-------------|--------------|
| Matrix:         | BULK       | Collected by:       | 11/06/15    |              |

Location Code: TIGHE Received by: LB 11/06/15

Rush Request: Standard Analyzed by: see "By" below

P.O.#: 12-1077

\_aboratory Data SDG ID: GBK19351

Phoenix ID: BK19351

11:36

Project ID: CITIZENS BLOCK VERNON

Client ID: 11-06-TCLP-01

| Parameter                  | Result    | RL/<br>PQL | l | Units | Dilution | Date | e/Time | Ву  | Reference |
|----------------------------|-----------|------------|---|-------|----------|------|--------|-----|-----------|
| TCLP Lead                  | 0.38      | 0.10       |   | mg/L  | 1        | 11/0 | 9/15   | EK  | SW6010C   |
| TCLP Metals Digestion      | Completed |            |   |       |          | 11/0 | 9/15   | 1/1 | SW3005A   |
| TCLP Extraction for Metals | Completed |            |   |       |          | 11/0 | 6/15   | I   | SW1311    |

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

### **Comments:**

If there are any questions regarding this data, please call Phoenix Client Services at extension 200. This report must not be reproduced except in full as defined by the attached chain of custody.

Phyllis Shiller, Laboratory Director

November 11, 2015

Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Page 1 of 1 Ver 1



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

# QA/QC Report

November 11, 2015

# QA/QC Data

SDG I.D.: GBK19351

3.6 75 - 125

| Parameter                    | Blank  | Blk<br>RL | Sample<br>Result | Dup<br>Result | Dup<br>RPD | LCS<br>% | LCSD<br>% | LCS<br>RPD | MS<br>% | MSD<br>% | MS<br>RPD | %<br>Rec<br>Limits | %<br>RPD<br>Limits |  |
|------------------------------|--------|-----------|------------------|---------------|------------|----------|-----------|------------|---------|----------|-----------|--------------------|--------------------|--|
| QA/QC Batch 326125 (mg/L), Q | C Samp | le No:    | BK18542          | (BK193        | 51)        |          |           |            |         |          |           |                    |                    |  |
| ICP Metals - TCLP Extrac     | tion   |           |                  |               |            |          |           |            |         |          |           |                    |                    |  |

NC

97.9

102

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

0.016 0.016

0.010

RPD - Relative Percent Difference

LCS - Laboratory Control Sample

LCSD - Laboratory Control Sample Duplicate

MS - Matrix Spike

MS Dup - Matrix Spike Duplicate

NC - No Criteria

Lead

Intf - Interference

Phyllis/Shiller, Laboratory Director

97.4

November 11, 2015

Wednesday, November 11, 2015

# Sample Criteria Exceedences Report

**GBK19351 - TIGHE** 

RL Analysis
SampNo Acode Phoenix Analyte Criteria Units

Criteria: None

State: CT

Phoenix Laboratories does not assume responsibility for the data contained in this report. It is provided as an additional tool to identify requested criteria exceedences. All efforts are made to ensure the accuracy of the data (obtained from appropriate agencies). A lack of exceedence information does not necessarily suggest conformance to the criteria. It is ultimately the site professional's responsibility to determine appropriate compliance.

Page 1 of 1

<sup>\*\*\*</sup> No Data to Display \*\*\*

| ler: Yes No             | ໍດ Pg of                |  | TIONEDONG. COM          | 12-1077      | This section MUST be | completed with         | Bottle Quantities. |  | Made to S              | ALGO, IN.    | ing line   | X6.                    | 21.00 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0  | 十            |  |  |   |  |  |             | Data Format   | Excel<br>□ PDF | GIS/Key          | EQuIS Other                                   | Data Package | ☐ Her II Checklist<br>☐ Full Data Package* | ☐ Phoenix Std Report☐ Other | *SURCHARGE APPLIES                  |
|-------------------------|-------------------------|--|-------------------------|--------------|----------------------|------------------------|--------------------|--|------------------------|--------------|--|------------------------|--|--------------|--|--|---|--|--|-------------|---|----------------|------------------|---|--------------|--|-----------------------------|-------------------------------------|
| Cooler:<br>Coolant: IPK | ) $\bigcap$ dubi        |  | 314                     | Project P.O. | This                 | 8                      | Pog →              |  |                        |              | Son State St | COLOR MENO MENO SEN AC | 1 4 10 10 10 10 10 10 10 10 10 10 10 10 10 |              |  |  |   |  |  |             | MCP Certification   |                |                  | Gw-3  |              |  | ☐ MWRA eSMART               | Ollected: CT                        |
|                         | RECORD                  | 0, Manchester, CT 06040<br>Fax (860) 645-0823  | 043-0120                | 8            | t                    | ۲                      |                    |  |                        |              |  |                        |  | X            |  |  |   |  |  |             | Ri<br>Direct Exposure   |                | GW Sw Protection | ☐ Other ☐ GA Mobility                         | GB Mobility  | Residential DEC                            | Other                       | State where samples were collected: |
|                         | CHAIN OF CUSTODY RECORD | 587 East Middle Turnpike, P.O. Box 370, Manchester, CT 06040<br>Email: info@phoenixlabs.com Fax (860) 645-0823 | Ciletit Sel vices (600) | J            | Report to: Yhthe     | Invoice to: \\vec{100} |                    |  |                        | = rednest    | 886  |                        |  | ×            |  |  |   |  |  |             | te: Time:   | 116115 11.70   |                  |   | Turnaround:  | 2 Days*                                    | 3 Days*                     | Uner SURCHARGE APPLIES              |
|                         |                         | 587 East<br>Emg  |                         | -            | ¢.t                  |                        |                    | ntification                                  | 21/9/11                | Calc         | SW=Surface Water WW=Waste Water ie S=Soil SD=Soild W=Wipe  |                        | Sample Date Time Matrix Sampled Sampled    | 8 11/6/15    |  |  |   |  |  | <br>!       | A   |                |                  |   |              |  |                             |                                     |
|                         |                         | PHOHINI Environmental Laboratories, Inc.   | 1                       | Tight & Bond | •                    | middletown ct          |                    | Client Sample - Information - Identification | 1                      | ode:         | DW=Drinking Water GW=Ground Water SW=Surface Water WW=Wask<br>RW=Raw Water SE=Sediment SL=Sludge S=Soif SD=Soid W=Wipe<br>OL=Oit B=Bulk L=Liquid   |                        | Customer Sample<br>Identification          | 1-06-TCLP-01 |  |  | 5 |  |  |             | A Daniel | W COMING       |                  | Comments. Special Requirements or Regulations |              |  |                             |                                     |
|                         | 1                       | Environ  |                         | Customer:    | Address:             |                        |                    |  | Sampler's<br>Signature | Matrix Code: | DW=Drinkin<br>RW=Raw W<br>OIL=Oil B=   |                        | PHOENIX USE ONLY<br>SAMPLE #               | 1935)        |  |  |   |  |  | S. doing of | <u>.</u>  | T. Ash         |                  | Comments                                      |              |  |                             |                                     |