



## PRE-DEMOLITION ASBESTOS SURVEY REPORT

**Georgetown Wastewater Treatment Plant  
632 North Broadway Street  
Georgetown, Kentucky 40324**

*Prepared For*  
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Lexington, KY 40503

*Prepared By*  
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**Report Date:  
June 26, 2019**

# Environmental Health Management



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## 1.0 ASBESTOS SURVEY

Douglas W. Peters and Associates, Inc., d.b.a. Environmental Health Management (EHM) was retained by Third Rock Consultants to perform a pre-demolition asbestos survey of multiple buildings at the Georgetown Wastewater Treatment Plant located at 632 North Broadway Street, Georgetown, Kentucky. The oldest structures were reportedly constructed in 1947. The inspection was limited to 11 structures which may be slated for demolition.

EHM is a Louisville, Kentucky based consulting firm, specialized in environmental, industrial hygiene and safety services. The scope of work related to this site visit falls under EHM's expertise for asbestos inspections. The inspection was performed by Kentucky accredited Asbestos Inspector Zachary Jones (I18-09-0320) of EHM.

The inspection of the structures was performed on June 20, 2019. EHM collected samples of roofing materials, thermal insulation, drywall, joint compound, floor tile, mastic, ceiling tile, caulk, and window glazing. A random selection was performed when extracting samples from the structures. The structures were vacant during the thorough inspection. Buildings 7, 8, 10, and 11 contained no suspect materials.

A total of sixty-three (63) samples were collected from the remaining seven structures. Samples that contained layers were separated and analyzed separately for asbestos-containing material. Overall a total of ninety-four (94) layers were analyzed by the lab.

The samples collected were analyzed by the EPA 600/R-93/116 Method using Polarized Light Microscopy (PLM), at a NVLAP accredited laboratory. PLM analysis is a standard analytical method for determining the presence of asbestos. Based on the sample analysis, some of the materials sampled are considered *asbestos-containing materials*. In accordance with EPA regulations, all materials containing 1% asbestos or less are defined as non-asbestos-containing building materials (ACBM). See the below table for a list of *asbestos-containing materials* or *presumed asbestos-containing materials* and their associated quantity.



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**Table 1. Summary of ACM or PACM**

Sample No.	Sample Location / Material Description	ACM Characteristics			Assessment	
		<sup>1</sup> AHERA Category	Friable	Total Quantity (SF,LF,CF)	<sup>2</sup> Condition	<sup>3</sup> NESHAPS Category
ASB-009 ASB-010	Building 1 / Window Caulk	M	No	450 LF	G	II
ASB-013 ASB-014	Building 2 / Roof Drain Elbow Insulation	T	Yes	3 LF	G	F
ASB-026 ASB-027	Building 4 / Roof Drain Elbow Insulation	T	Yes	3 LF	G	F

<sup>1</sup>AHERA Category T=Thermal System Insulation, S=Surfacing, M=Miscellaneous

<sup>2</sup>Condition noted at the time of survey. G=Good, D=Damaged, S=Severely Damaged

<sup>3</sup>NESHAPS Category based on presumed abatement method. Cat. I Non-Friable, Cat. II Non-Friable, or Friable

## 1.1 Summary/Conclusion Statement

Environmental Health Management has performed a thorough inspection of 11 structures located at 632 North Broadway Street, Georgetown, Kentucky. The survey was limited to the structures slated for demolition. During this inspection all ACM or potential ACM was identified and tested.

All asbestos-containing materials are required to be removed before demolition can be performed. Recommend that an asbestos abatement contractor licensed in Kentucky remove all the asbestos identified in this report. A listing can be found at:

<https://eec.ky.gov/Environmental-Protection/Air/asbestos/Pages/default.aspx>

or

<https://eec.ky.gov/Environmental-Protection/Air/asbestos/Documents/Active%20Asbestos%20Abatement%20Contractors%202-15-19.xls>

Included with this report are the asbestos field sample logs, laboratory sample results, and drawings of the structure indicating the location of the asbestos-containing materials. If you have any questions regarding this report, please contact Doug Peters at (502) 454-8530.





# Environmental Health Management

Please refer to Appendix A for asbestos laboratory results and certifications.

## 1.2 Sample and Material Location Drawings

Environmental Health Management has provided material location drawings. The drawings may be used as supplementary information. Please refer to the sampling tables for sample extraction points, assessments information, and the materials associated quantities.

**Legend**

ASB-0XX	Non-Asbestos Sample Location
<b>ASB-0XX</b>	Asbestos Sample Location
	ACM Pipe Elbow Insulation
	ACM Window Caulk





# Environmental Health Management

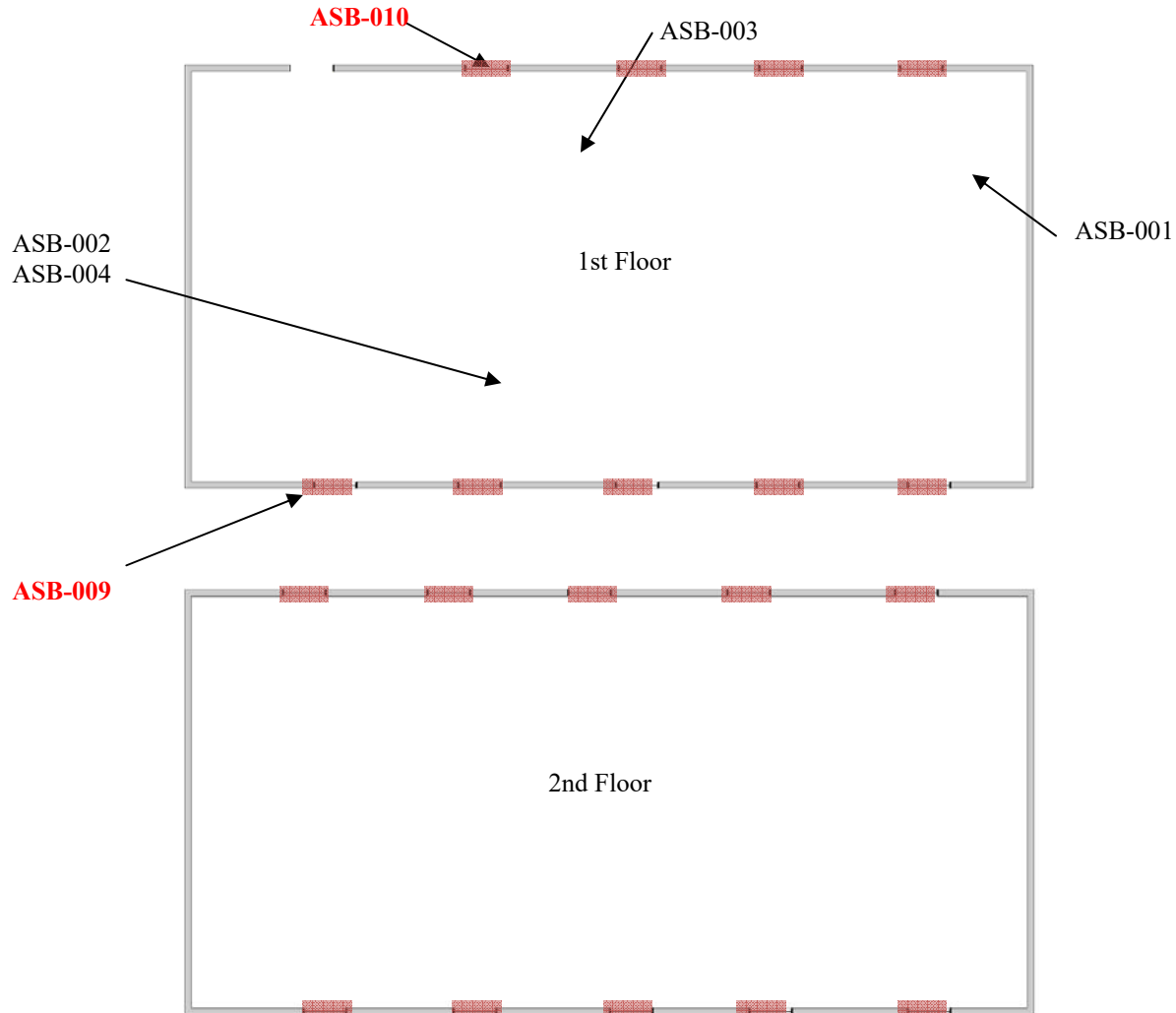
632 North Broadway Street, Georgetown, Kentucky – Building Numbers





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632 North Broadway Street, Georgetown, Kentucky – Screen Building (Bldg 1)





# Environmental Health Management

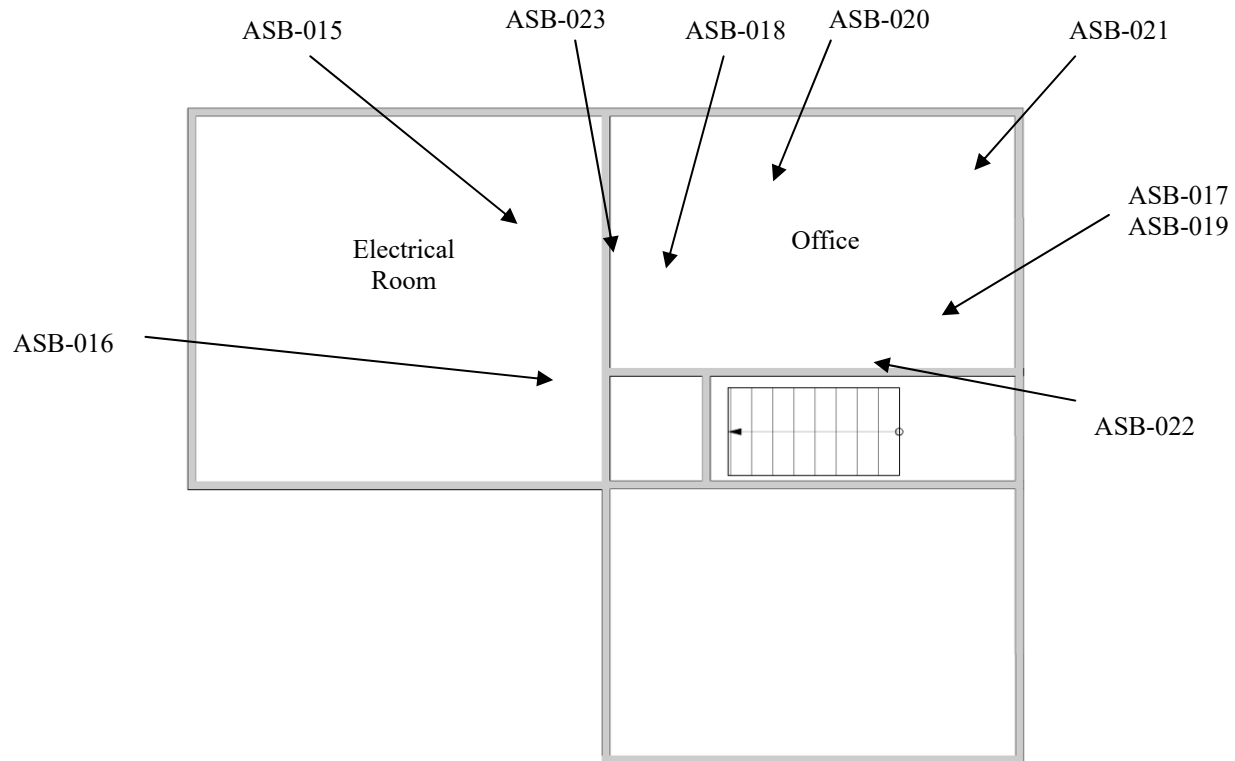
632 North Broadway Street, Georgetown, Kentucky – Digester Building (Bldg 2)





# Environmental Health Management

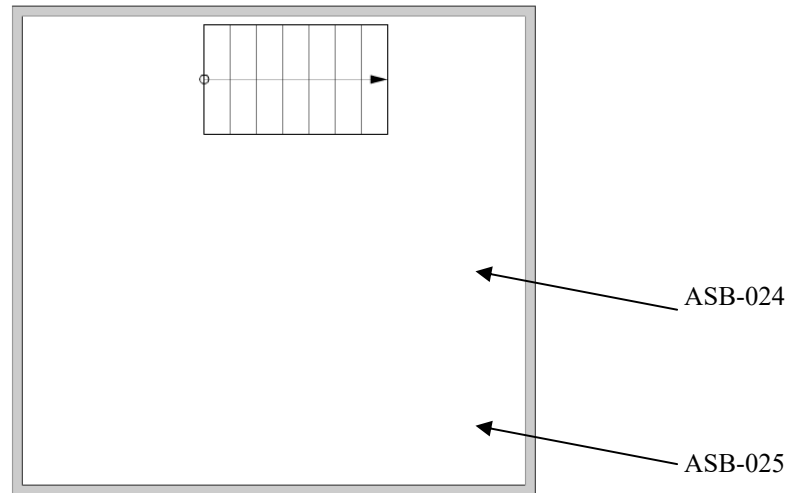
632 North Broadway Street, Georgetown, Kentucky – Collections Building (Bldg 3)





# Environmental Health Management

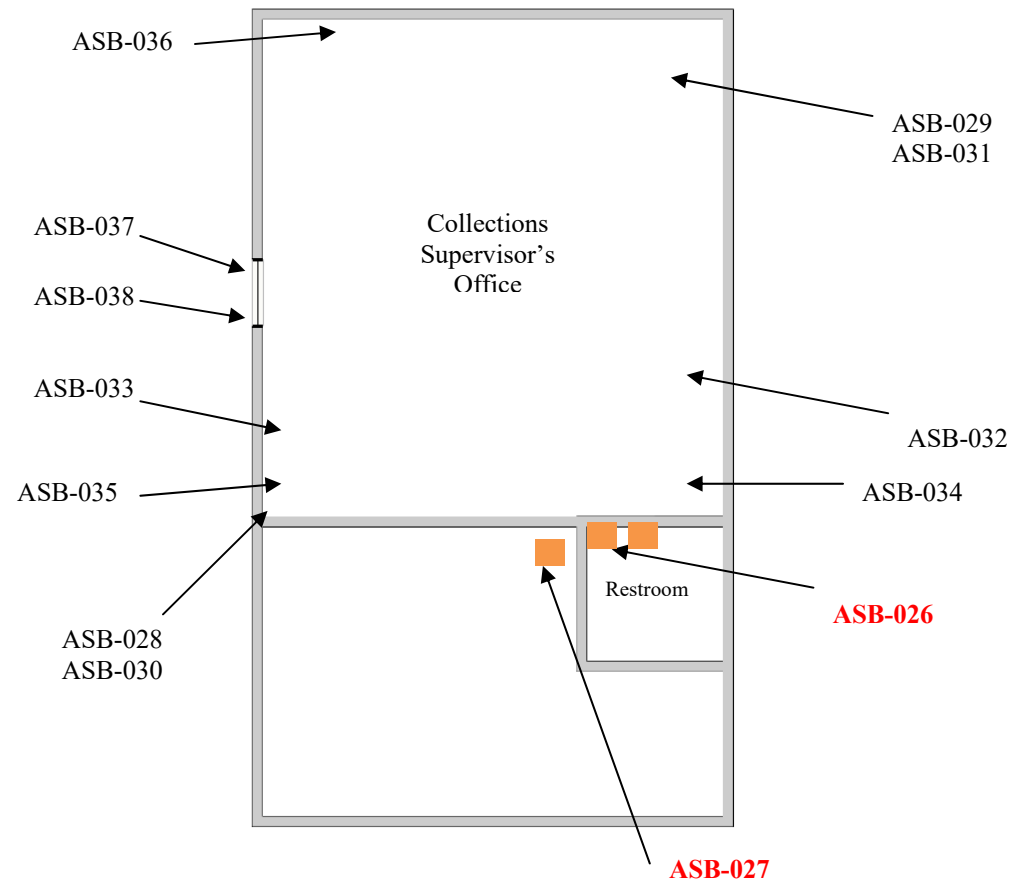
632 North Broadway Street, Georgetown, Kentucky – Collections Building Basement





# Environmental Health Management

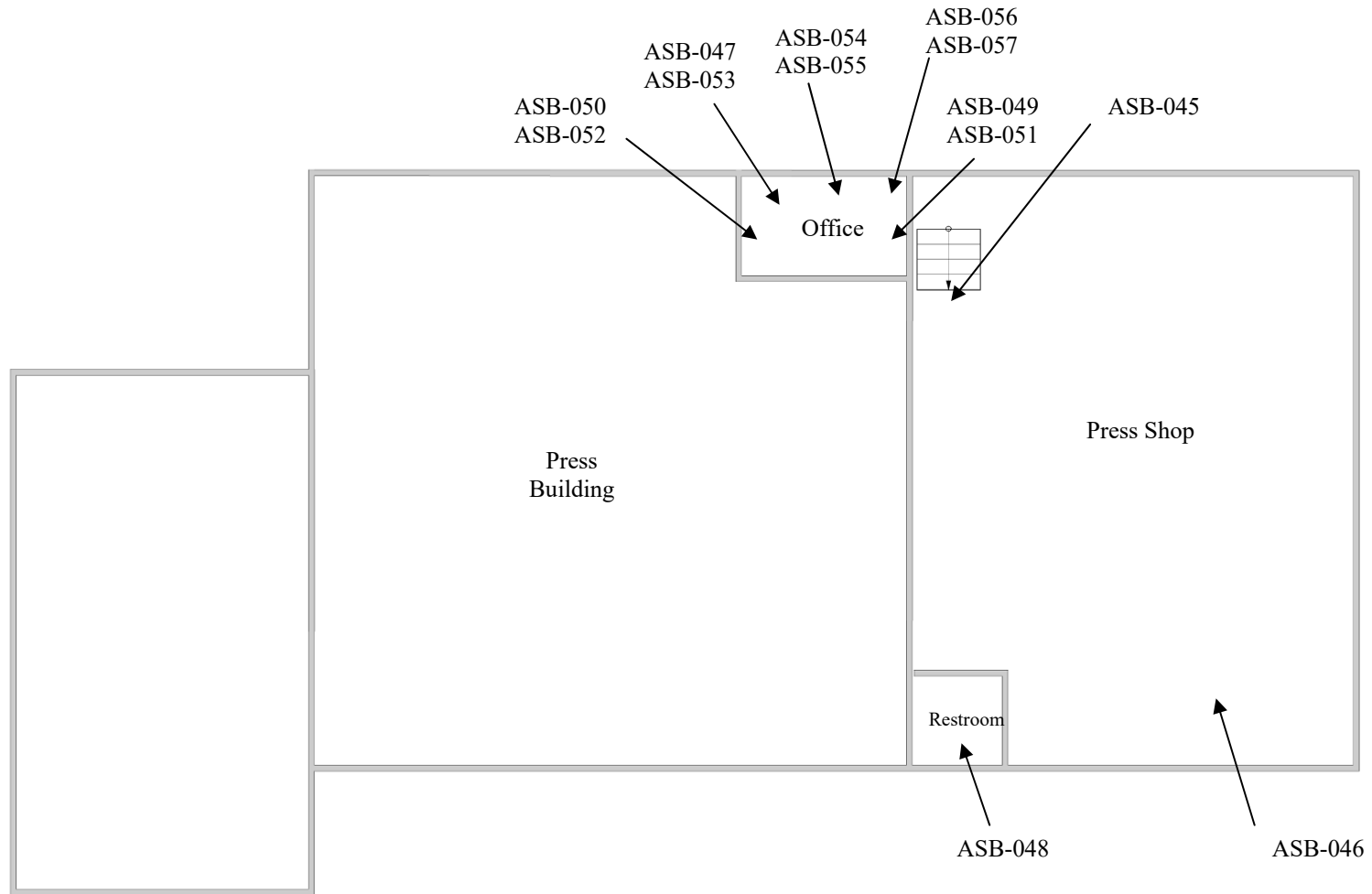
632 North Broadway Street, Georgetown, Kentucky – Collections Supervisor's Office (Bldg 4)





# Environmental Health Management

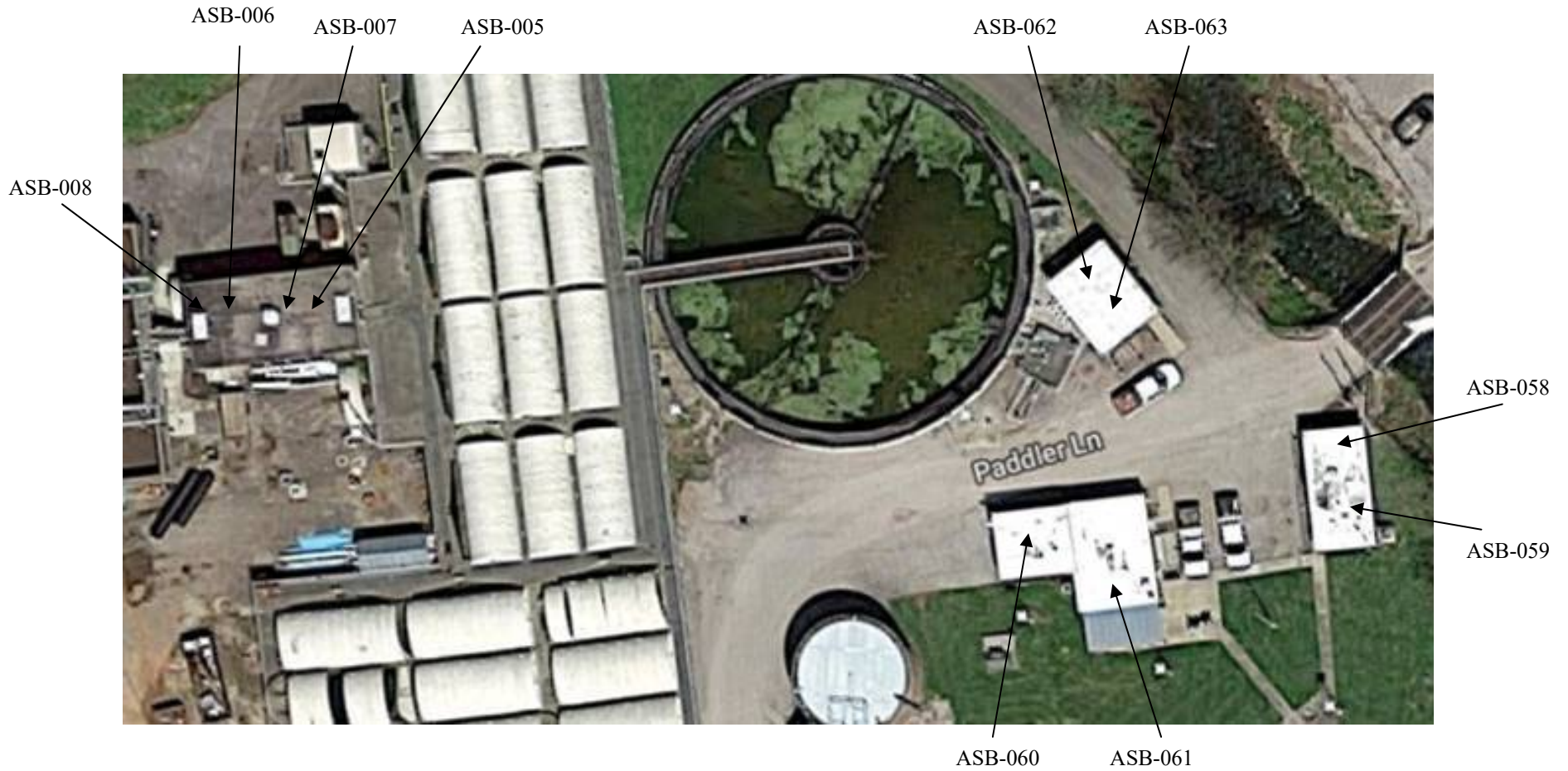
632 North Broadway Street, Georgetown, Kentucky – Press Building (Bldg 9)





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632 North Broadway Street, Georgetown, Kentucky – Roof Samples Buildings 1, 3, 4, & 5





# Environmental Health Management

632 North Broadway Street, Georgetown, Kentucky – Roof Samples Buildings 6 & 9



ASB-041  
ASB-042

ASB-043  
ASB-044

ASB-039

ASB-040



# Environmental Health Management

**Table 2. Sample Log and Results**

Sample No.	Sample Location / Material Description	Asbestos Content
ASB-001	Building 1 / Elastomeric Coating on 2" Pipe Elbow Insulation	None Detected
ASB-002	Building 1 / Elastomeric Coating on 2" Pipe Elbow Insulation	None Detected
ASB-003	Building 1 / Coating on 2" Pipe Fitting Insulation	<1% Chrysotile
ASB-004	Building 1 / Coating on 2" Pipe Fitting Insulation	<1% Chrysotile
ASB-005	Building 1 Roof / Roof Core	None Detected
ASB-006	Building 1 Roof / Roof Core	None Detected
ASB-007	Building 1 Roof / Roof Flashing	None Detected
ASB-008	Building 1 Roof / Roof Flashing	None Detected
<b>ASB-009</b>	<b>Building 1 / Window Caulk</b>	<b>2% Chrysotile</b>
<b>ASB-010</b>	<b>Building 1 / Window Caulk</b>	<b>2% Chrysotile</b>
ASB-011	Building 2 / Window Glazing	<1% Chrysotile
ASB-012	Building 2 / Window Glazing	<1% Chrysotile
<b>ASB-013</b>	<b>Building 2 / Roof Drain Elbow Insulation</b>	<b>10% Chrysotile</b>
<b>ASB-014</b>	<b>Building 2 / Roof Drain Elbow Insulation</b>	<b>10% Chrysotile</b>
ASB-015	Building 3 Electrical Room / Coating on Fiberglass Duct Insulation	None Detected
ASB-016	Building 3 Electrical Room / Coating on Fiberglass Duct Insulation	None Detected
ASB-017	Building 3 Office / Flooring	None Detected
ASB-018	Building 3 Office / Flooring	None Detected
ASB-019	Building 3 / Ceiling Tile	None Detected
ASB-020	Building 3 / Ceiling Tile	None Detected
ASB-021	Building 3 Office / Drywall	None Detected
ASB-021	Building 3 Office / Joint Compound	None Detected
ASB-022	Building 3 Office / Drywall	None Detected
ASB-022	Building 3 Office / Joint Compound	None Detected



# Environmental Health Management

Sample No.	Sample Location / Material Description	Asbestos Content
ASB-023	Building 3 Office / Drywall	None Detected
ASB-023	Building 3 Office / Joint Compound	None Detected
ASB-024	Building 3 Basement / Coating on Fiberglass Fitting Insulation	<1% Chrysotile
ASB-025	Building 3 Basement / Coating on Fiberglass Fitting Insulation	<1% Chrysotile
<b>ASB-026</b>	<b>Building 4 / Roof Drain Elbow Insulation</b>	<b>10% Chrysotile</b>
<b>ASB-027</b>	<b>Building 4 / Roof Drain Elbow Insulation</b>	<b>10% Chrysotile</b>
ASB-028	Building 4 / Floor Tile, Top Layer, 12", Tan	None Detected
ASB-029	Building 4 / Floor Tile, Top Layer, 12", Tan	None Detected
ASB-030	Building 4 / Floor Tile, Bottom Layer, Blue	None Detected
ASB-030	Building 4 / Floor Tile Mastic, Bottom Layer, Blue	None Detected
ASB-031	Building 4 / Floor Tile, Bottom Layer, Blue	None Detected
ASB-031	Building 4 / Floor Tile Mastic, Bottom Layer, Blue	None Detected
ASB-032	Building 4 / Ceiling Tile	None Detected
ASB-033	Building 4 / Ceiling Tile	None Detected
ASB-034	Building 4 / Drywall	None Detected
ASB-034	Building 4 / Joint Compound	None Detected
ASB-035	Building 4 / Drywall	None Detected
ASB-035	Building 4 / Joint Compound	None Detected
ASB-036	Building 4 / Drywall	None Detected
ASB-036	Building 4 / Joint Compound	None Detected
ASB-037	Building 4 / Window Glazing	None Detected
ASB-038	Building 4 / Window Glazing	None Detected
ASB-039	Building 6 Roof / Roof Core, Rubber	None Detected
ASB-039	Building 6 Roof / Roof Core, Insulation	None Detected
ASB-039	Building 6 Roof / Roof Core, Foam	None Detected



# Environmental Health Management

Sample No.	Sample Location / Material Description	Asbestos Content
ASB-039	Building 6 Roof / Roof Core, Felt	None Detected
ASB-040	Building 6 Roof / Roof Core, Rubber	None Detected
ASB-040	Building 6 Roof / Roof Core, Foam	None Detected
ASB-040	Building 6 Roof / Roof Core, Felt	None Detected
ASB-041	Building 9 Upper Roof / Roof Core to Metal Deck, Foam	None Detected
ASB-041	Building 9 Upper Roof / Roof Core to Metal Deck, Felt	None Detected
ASB-042	Building 9 Upper Roof / Roof Caulk	None Detected
ASB-043	Building 9 Lower Roof / Roof Core to Metal Deck, Foam	None Detected
ASB-043	Building 9 Lower Roof / Roof Core to Metal Deck, Felt	None Detected
ASB-044	Building 9 Lower Roof / Roof Caulk	None Detected
ASB-045	Building 9 Press Shop / Spray Foam Insulation on Ceiling	None Detected
ASB-046	Building 9 Press Shop / Spray Foam Insulation on Ceiling	None Detected
ASB-047	Building 9 Press Office / Ceiling Tile	None Detected
ASB-048	Building 9 Press Shop Restroom / Ceiling Tile	None Detected
ASB-049	Building 9 Office / Floor Tile, 12", Gray	None Detected
ASB-049	Building 9 Office / Floor Tile Mastic, 12", Gray	None Detected
ASB-050	Building 9 Office / Floor Tile, 12", Gray	None Detected
ASB-050	Building 9 Office / Floor Tile Mastic, 12", Gray	None Detected
ASB-051	Building 9 Office / Drywall	None Detected
ASB-051	Building 9 Office / Joint Compound	None Detected
ASB-052	Building 9 Office / Drywall	None Detected
ASB-052	Building 9 Office / Joint Compound	None Detected
ASB-053	Building 9 Office / Drywall	None Detected
ASB-053	Building 9 Office / Joint Compound	None Detected
ASB-054	Building 9 Office / Coating on Fiberglass HVAC Duct Insulation	None Detected

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Sample No.	Sample Location / Material Description	Asbestos Content
ASB-055	Building 9 Office / Coating on Fiberglass HVAC Duct Insulation	None Detected
ASB-056	Building 9 Office / Coating on Fiberglass Pipe Fitting Insulation	None Detected
ASB-057	Building 9 Office / Coating on Fiberglass Pipe Fitting Insulation	None Detected
ASB-058	Building 4 Roof / Roof Core, Roofing	None Detected
ASB-058	Building 4 Roof / Roof Core, Insulation	None Detected
ASB-058	Building 4 Roof / Roof Core, Foam	None Detected
ASB-059	Building 4 Roof / Roof Core, Roofing	None Detected
ASB-059	Building 4 Roof / Roof Core, Insulation	None Detected
ASB-059	Building 4 Roof / Roof Core, Foam	None Detected
ASB-060	Building 3 Upper Roof / Roof Core, Insulation	None Detected
ASB-060	Building 3 Upper Roof / Roof Core, Foam	None Detected
ASB-060	Building 3 Upper Roof / Roof Core, Felt	None Detected
ASB-061	Building 3 Lower Roof / Roof Core to Wood Deck, Foam	None Detected
ASB-061	Building 3 Lower Roof / Roof Core to Wood Deck, Felt	None Detected
ASB-062	Building 5 Roof / Roof Core to Concrete Deck, Roofing	None Detected
ASB-062	Building 5 Roof / Roof Core to Concrete Deck, Foam	None Detected
ASB-062	Building 5 Roof / Roof Core to Concrete Deck, Felt	None Detected
ASB-063	Building 5 Roof / Roof Core to Concrete Deck, Roofing	None Detected
ASB-063	Building 5 Roof / Roof Core to Concrete Deck, Foam	None Detected
ASB-063	Building 5 Roof / Roof Core to Concrete Deck, Felt	None Detected

# Environmental Health Management



## Limitations

The information contained in this report has been obtained through conversations, sampling and survey. The evaluation, conclusions and recommendations of this report are based solely upon the conditions present at the facility during the sampling period. Although great care has been taken by Douglas W. Peters and Associates, Inc., d.b.a. Environmental Health Management in compiling and checking the information contained in this report to insure that it is current and accurate, Douglas W. Peters and Associates, Inc., d.b.a. Environmental Health Management disclaims any and all liability for any errors, omissions or inaccuracies in such information and data, whether attributable to inadvertence or otherwise, and for any consequence arising therefrom. The data provided hereunder neither purports to be nor constitutes legal or medical advice. Douglas W. Peters and Associates, Inc., d.b.a. Environmental Health Management shall not be liable for any special, consequential or exemplary damages resulting, in whole or in part, from customer's use of the data. Liability on the part of the Douglas W. Peters and Associates, Inc., d.b.a. Environmental Health Management is limited to the monetary value paid for this report.

Respectfully,

A handwritten signature in black ink that reads "Douglas W. Peters". The signature is written in a cursive, flowing style.

Douglas W. Peters, CIH, CSP  
Certified Industrial Hygienist / Project Manager



## **APPENDIX A**

### **Asbestos Laboratory Results and Certifications**

# Commonwealth of Kentucky

Department for Environmental Protection

Division for Air Quality

## Zachary Jones

*Has met the requirements of 401 KAR 58:005 and is accredited as an:*


**Asbestos  
Inspector**

The seal of the Commonwealth of Kentucky is visible in the background. It is a circular emblem with the text "COMMONWEALTH OF KENTUCKY" around the perimeter. In the center, there is a figure of a woman holding a scale and a sword, with the date "1792" and the motto "AGRICULTURE" below her.

Accreditation Number: **I18-09-0320**

Issue Date: **9/18/2018**

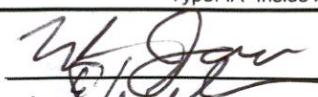
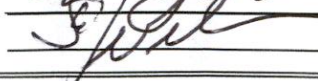
Expiration Date: **9/6/2019**

 <b>Environmental Health Management</b> 3701 Taylorsville Road, Suite 1, Louisville, KY 40220 (502)454-8530 * Fax (502)454-8528 www.ehmlou.com	Special Notes: _____ _____ _____	Lab Use-WO# <div style="font-size: 24pt; font-weight: bold; text-align: center;">161912256</div> Acct # _____ Phone # _____ 502-454-8530 Send Results to: JoeChristy@EHMLou.com
-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	----------------------------------------	------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Project Name: Third Rock Project Location: Georgetown WWTP Project Number: 119-10098 Purchase Order No.: 119-10098	<b>Special Instructions [include requests for special reporting or data packages]</b>  <b>STATE WHERE SAMPLES WERE COLLECTED</b> <span style="float: right;">Kentucky</span>	
-----------------------------------------------------------------------------------------------------------------------------	------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--

Turn Around Time	Matrix / Sample Type (Select ONE)	Tests / Analytes (Select ALL that Apply)			ORGANICS TESTS and other Analytes
<input type="checkbox"/> 6-8 hours <input checked="" type="checkbox"/> 24 hours <input type="checkbox"/> 48 hours <input type="checkbox"/> 72 hour <input type="checkbox"/> STANDARD (5 days) <input type="checkbox"/> Standard Full TCLP (10d) <input type="checkbox"/> Weekend <input type="checkbox"/> _____	All samples on form should be of <u>SAME</u> matrix type. Use additional forms as needed.  <input type="checkbox"/> Air <input type="checkbox"/> Solid <input type="checkbox"/> Aqueous <input type="checkbox"/> Waste <input checked="" type="checkbox"/> Bulk <input type="checkbox"/> Wastewater <input type="checkbox"/> Hi-Vol Filter (PM10) <input type="checkbox"/> Water/Drinking <input type="checkbox"/> Hi-Vol Filter (TSP) <input type="checkbox"/> Compliance <input type="checkbox"/> Oil <input type="checkbox"/> Wipe <input type="checkbox"/> Paint <input type="checkbox"/> Hex. Chromium <input type="checkbox"/> Sludge <input type="checkbox"/> _____ <input type="checkbox"/> Soil <input type="checkbox"/> _____	<b>Asbestos Air / Fiber Counts</b> <input type="checkbox"/> PCM (NIOSH 7400) <input type="checkbox"/> TEM (AHERA) <input type="checkbox"/> TEM (EPA Level II) <input type="checkbox"/> _____  <b>Miscellaneous Tests</b> <input type="checkbox"/> Total Dust (NIOSH 0500) <input type="checkbox"/> Resp. Dust (NIOSH 0600) <input type="checkbox"/> Silica - FTIR (NIOSH 7602) <input type="checkbox"/> Silica - XRD (NIOSH 7500) <input type="checkbox"/> Hex Chrome (NIOSH 7600) <input type="checkbox"/> Other	<b>Asbestos Bulk / Asb ID</b> <input checked="" type="checkbox"/> PLM EPA/600/R-93/116 <input type="checkbox"/> PLM (EPA Point Count) <input type="checkbox"/> PLM (Qualitative only) <input type="checkbox"/> NYELAP 198.1/4/6 <input type="checkbox"/> CAELAP (EPA Interim) <input type="checkbox"/> TEM (Chatfield) <input type="checkbox"/> _____  <b>FOR ASBESTOS AIR:</b> TYPE OF RESPIRATOR _____ USED: _____	<b>Metals-Total Conc.</b> <input type="checkbox"/> Lead <input type="checkbox"/> RCRA Metals <input type="checkbox"/> _____  <b>Metals-Extract</b> <input type="checkbox"/> TCLP / Lead <input type="checkbox"/> TCLP / RCRA Metals <input type="checkbox"/> TCLP / Full (w/ organics) <input type="checkbox"/> _____ <input type="checkbox"/> _____	NOTE: All samples for organics should be kept at 4°C from collection until testing. Schedule rush analyses in advance. Indicate preservatives added & media type. Indicate analysis method for organics tests.

Organics				Information for Air Samples				Organics	
Sample #	Date Sampled	Time Sampled	Sample Identification (e.g. Employee, SSN, Bldg, Material)	Time		Flow Rate		Total Air Vol	# samplers
				Start	Stop	Start	Stop		
ASB-001	6/21/19		Building 1 / Elastomeric Coating on 2" Pipe Elbow Insulation						1
ASB-002	6/21/19		Building 1 / Elastomeric Coating on 2" Pipe Elbow Insulation						1
ASB-003	6/21/19		Building 1 / Coating on 2" Pipe Fitting Insulation						1
ASB-004	6/21/19		Building 1 / Coating on 2" Pipe Fitting Insulation						1
ASB-005	6/21/19		Building 1 Roof / Roof Core						1
ASB-006	6/21/19		Building 1 Roof / Roof Core						1
ASB-007	6/21/19		Building 1 Roof / Roof Flashing						1
ASB-008	6/21/19		Building 1 Roof / Roof Flashing						1
ASB-009	6/21/19		Building 1 / Window Caulk						1
ASB-010	6/21/19		Building 1 / Window Caulk						1
ASB-011	6/21/19		Building 2 / Window Glazing						1
ASB-012	6/21/19		Building 2 / Window Glazing						1
ASB-013	6/21/19		Building 2 / Roof Drain Elbow Insulation						1
ASB-014	6/21/19		Building 2 / Roof Drain Elbow Insulation						1
ASB-015	6/21/19		Building 3 Electrical Room / Coating on Fiberglass Duct Insulation						1
ASB-016	6/21/19		Building 3 Electrical Room / Coating on Fiberglass Duct Insulation						1
ASB-017	6/21/19		Building 3 Office / Flooring						1
ASB-018	6/21/19		Building 3 Office / Flooring						1
ASB-019	6/21/19		Building 3 / Ceiling Tile						1
ASB-020	6/21/19		Building 3 / Ceiling Tile						1
ASB-021	6/21/19		Building 3 Office / Drywall and Joint Compound						1
ASB-022	6/21/19		Building 3 Office / Drywall and Joint Compound						1
ASB-023	6/21/19		Building 3 Office / Drywall and Joint Compound						1

Sample Collection & Custody Information				*Type: IA=Inside Area OA=Outside Area C=Clearance B=blank P=personal E=excursion			
Sampled by [NAME]	Zach Jones						
Relinquished to lab by [NAME]	Zach Jones	Signature		Date/Time	6/21/19 11:20	[ ] Sample return requested	
Received in lab by [NAME]	SW, ISOW	Signature		Date/Time	6/24/19 9:40y	[ ] Ambient temp [ ] Cool ____ °C	
						[ ] pH [ ] Cl [ ] JR [ ] S	



**Environmental Health Management**  
 3701 Taylorsville Road, Suite 1, Louisville, KY 40220  
 (502)454-8530 \* Fax (502)454-8528  
 www.ehmlou.com

Special Notes: \_\_\_\_\_

Lab Use-WO# **12256**  
 Acct # \_\_\_\_\_  
 Phone # **502-454-8530**  
 Send Results to:  
**JoeChristy@EHMLou.com**

Project Name: **Third Rock**  
 Project Location: **Georgetown WWTP**  
 Project Number: **119-10098**  
 Purchase Order No.: **119-10098**

**Special Instructions [include requests for special reporting or data packages]**  
**STATE WHERE SAMPLES WERE COLLECTED** Kentucky

Turn Around Time	Matrix / Sample Type (Select ONE)	Tests / Analytes (Select ALL that Apply)		
<input type="checkbox"/> 6-8 hours <input checked="" type="checkbox"/> <b>24 hours</b> <input type="checkbox"/> 48 hours <input type="checkbox"/> 72 hour <input type="checkbox"/> STANDARD (5 days) <input type="checkbox"/> Standard Full TCLP (10d) <input type="checkbox"/> Weekend <input type="checkbox"/> _____	All samples on form should be of SAME matrix type. Use additional forms as needed. <input type="checkbox"/> Air <input type="checkbox"/> Solid <input type="checkbox"/> Aqueous <input type="checkbox"/> Waste <input checked="" type="checkbox"/> <b>Bulk</b> <input type="checkbox"/> Wastewater <input type="checkbox"/> Hi-Vol Filter (PM10) <input type="checkbox"/> Water, Drinking <input type="checkbox"/> Hi-Vol Filter (TSP) <input type="checkbox"/> Compliance <input type="checkbox"/> Oil <input type="checkbox"/> Wipe <input type="checkbox"/> Paint <input type="checkbox"/> Hex. Chromium <input type="checkbox"/> Sludge <input type="checkbox"/> _____ <input type="checkbox"/> Soil <input type="checkbox"/> _____	<b>Asbestos Air / Fiber Counts</b> <input type="checkbox"/> PCM (NIOSH 7400) <input type="checkbox"/> TEM (AHERA) <input type="checkbox"/> TEM (EPA Level II) <input type="checkbox"/> _____ <b>Miscellaneous Tests</b> <input type="checkbox"/> Total Dust (NIOSH 0500) <input type="checkbox"/> Resp. Dust (NIOSH 0600) <input type="checkbox"/> Silica - FTIR (NIOSH 7602) <input type="checkbox"/> Silica - XRD (NIOSH 7500) <input type="checkbox"/> Hex Chrome (NIOSH 7600) <input type="checkbox"/> Other _____	<b>Asbestos Bulk / ASB ID</b> <input checked="" type="checkbox"/> <b>PLM EPA/600/R-93/116</b> <input type="checkbox"/> PLM (EPA Point Count) <input type="checkbox"/> PLM (Qualitative only) <input type="checkbox"/> NYELAP 198.11/4/6 <input type="checkbox"/> CAELAP (EPA Interim) <input type="checkbox"/> TEM (Chatfield) <input type="checkbox"/> _____ <b>FOR ASBESTOS AIR:</b> TYPE OF RESPIRATOR _____ USED: _____	<b>Metals-Total Conc.</b> <input type="checkbox"/> Lead <input type="checkbox"/> RCRA Metals <input type="checkbox"/> _____ <input type="checkbox"/> _____ <b>Metals-Extract</b> <input type="checkbox"/> TCLP / Lead <input type="checkbox"/> TCLP / RCRA Metals <input type="checkbox"/> TCLP / Full (w/ organics) <input type="checkbox"/> _____ <input type="checkbox"/> _____

**ORGANICS TESTS and other Analyses**  
 NOTE: All samples for organics should be kept at 4°C from collection until testing. Schedule rush analyses in advance. Indicate preservatives added & media type. Indicate analysis method for organics tests.

Sample #	Date Sampled	Time Sampled	Sample Identification (e.g. Employee, SSN, Bldg, Material)	Information for Air Samples				Total Air Vol	# containers
				Time		Flow Rate			
				Start	Stop	Start	Stop		
ASB-024	6/21/19		Building 3 Basement / Coating on Fiberglass Fitting Insulation						1
ASB-025	6/21/19		Building 3 Basement / Coating on Fiberglass Fitting Insulation						1
ASB-026	6/21/19		Building 4 / Roof Drain Elbow Insulation						1
ASB-027	6/21/19		Building 4 / Roof Drain Elbow Insulation						1
ASB-028	6/21/19		Building 4 / Floor Tile, Top Layer, 12", Tan						1
ASB-029	6/21/19		Building 4 / Floor Tile, Top Layer, 12", Tan						1
ASB-030	6/21/19		Building 4 / Floor Tile, Bottom Layer, Blue						1
ASB-031	6/21/19		Building 4 / Floor Tile, Bottom Layer, Blue						1
ASB-032	6/21/19		Building 4 / Ceiling Tile						1
ASB-033	6/21/19		Building 4 / Ceiling Tile						1
ASB-034	6/21/19		Building 4 / Drywall and Joint Compound						1
ASB-035	6/21/19		Building 4 / Drywall and Joint Compound						1
ASB-036	6/21/19		Building 4 / Drywall and Joint Compound						1
ASB-037	6/21/19		Building 4 / Window Glazing						1
ASB-038	6/21/19		Building 4 / Window Glazing						1
ASB-039	6/21/19		Building 6 Roof / Roof Core						1
ASB-040	6/21/19		Building 6 Roof / Roof Core						1
ASB-041	6/21/19		Building 9 Upper Roof / Roof Core to Metal Deck						1
ASB-042	6/21/19		Building 9 Upper Roof / Roof Caulk						1
ASB-043	6/21/19		Building 9 Lower Roof / Roof Core to Metal Deck						1
ASB-044	6/21/19		Building 9 Lower Roof / Roof Caulk						1

**Sample Collection & Custody Information** <sup>1</sup>Type: IA=Inside Area OA=Outside Area C=Clearance B=blank P=personal E=excursion

Sampled by [NAME] Zach Jones  Sample return requested  
 Relinquished to lab by [NAME] Zach Jones Signature Zach Jones Date/Time 6/21/19 11:20  Ambient temp  Cool \_\_\_\_\_ °C  
 Received in lab by [NAME] Swilson Signature Swilson Date/Time 6/24/19 9:45p  pH  Cl  JR  JS



# Environmental Health Management

3701 Taylorsville Road, Suite 1, Louisville, KY 40220  
(502)454-8530 \* Fax (502)454-8528  
www.ehmlou.com

Special Notes:

Lab Use-WO#

12256

Acct #

Project Name: Third Rock  
Project Location: Georgetown WWTP  
Project Number: 119-10098  
Purchase Order No.: 119-10098

Special Instructions [include requests for special reporting or data packages]

Phone #

502-454-8530

Send Results to:

JoeChristy@EHMLou.com

STATE WHERE SAMPLES WERE COLLECTED

Kentucky

Turn Around Time	Matrix / Sample Type (Select ONE)	Tests / Analytes (Select ALL that Apply)		
<input type="checkbox"/> 16-8 hours <input checked="" type="checkbox"/> 24 hours <input type="checkbox"/> 48 hours <input type="checkbox"/> 72 hour <input type="checkbox"/> STANDARD (5 days) <input type="checkbox"/> Standard Full TCLP (10d) <input type="checkbox"/> Weekend <input type="checkbox"/> _____	All samples on form should be of <b>SAME matrix type</b> . Use additional forms as needed. <input type="checkbox"/> Air <input type="checkbox"/> Solid <input type="checkbox"/> Aqueous <input type="checkbox"/> Waste <input checked="" type="checkbox"/> Bulk <input type="checkbox"/> Wastewater <input type="checkbox"/> Hi-Vol Filter (PM10) <input type="checkbox"/> Water, Drinking <input type="checkbox"/> Hi-Vol Filter (TSP) <input type="checkbox"/> Compliance <input type="checkbox"/> Oil <input type="checkbox"/> Wipe <input type="checkbox"/> Paint <input type="checkbox"/> Hex. Chromium <input type="checkbox"/> Sludge <input type="checkbox"/> _____ <input type="checkbox"/> Soil <input type="checkbox"/> _____	<b>Asbestos Air / Fiber Counts</b> <input type="checkbox"/> PCM (NIOSH 7400) <input type="checkbox"/> TEM (AHERA) <input type="checkbox"/> TEM (EPA Level II) <input type="checkbox"/> _____ <b>Miscellaneous Tests</b> <input type="checkbox"/> Total Dust (NIOSH 0500) <input type="checkbox"/> Resp. Dust (NIOSH 0600) <input type="checkbox"/> Silica - FTIR (NIOSH 7602) <input type="checkbox"/> Silica - XRD (NIOSH 7500) <input type="checkbox"/> Hex Chrome (NIOSH 7600) <input type="checkbox"/> Other _____	<b>Asbestos Bulk / AsB ID</b> <input checked="" type="checkbox"/> PLM EPA/600/R-93/116 <input type="checkbox"/> PLM (EPA Point Count) <input type="checkbox"/> PLM (Qualitative only) <input type="checkbox"/> NYELAP 198.1/4/6 <input type="checkbox"/> CAELAP (EPA Interim) <input type="checkbox"/> TEM (Chatfield) <input type="checkbox"/> _____ <b>FOR ASBESTOS AIR:</b> TYPE OF RESPIRATOR _____ USED: _____	<b>Metals-Total Conc.</b> <input type="checkbox"/> Lead <input type="checkbox"/> RCRA Metals <input type="checkbox"/> _____ <input type="checkbox"/> _____ <b>Metals-Extract</b> <input type="checkbox"/> TCLP / Lead <input type="checkbox"/> TCLP / RCRA Metals <input type="checkbox"/> TCLP / Full (w/ organics) <input type="checkbox"/> _____ <input type="checkbox"/> _____

ORGANICS TESTS and other Analyses  
NOTE: All samples for organics should be kept at 4°C from collection until testing. Schedule rush analyses in advance. Indicate preservatives added & media type. Indicate analysis method for organics tests.

Sample #	Date Sampled	Time Sampled	Sample Identification (w.g. Employee, SSN, Bldg, Material)	Information for Air Samples				Total Air Vol	# containers
				Time		Flow Rate			
				Start	Stop	Start	Stop		
ASB-045	6/21/19		Building 9 Press Shop / Spray Foam Insulation on Ceiling						1
ASB-046	6/21/19		Building 9 Press Shop / Spray Foam Insulation on Ceiling						1
ASB-047	6/21/19		Building 9 Press Office / Ceiling Tile						1
ASB-048	6/21/19		Building 9 Press Shop Restroom / Ceiling Tile						1
ASB-049	6/21/19		Building 9 Office / Floor Tile, 12", Gray						1
ASB-050	6/21/19		Building 9 Office / Floor Tile, 12", Gray						1
ASB-051	6/21/19		Building 9 Office / Drywall and Joint Compound						1
ASB-052	6/21/19		Building 9 Office / Drywall and Joint Compound						1
ASB-053	6/21/19		Building 9 Office / Drywall and Joint Compound						1
ASB-054	6/21/19		Building 9 Office / Coating on Fiberglass HVAC Duct Insulation						1
ASB-055	6/21/19		Building 9 Office / Coating on Fiberglass HVAC Duct Insulation						1
ASB-056	6/21/19		Building 9 Office / Coating on Fiberglass Pipe Fitting Insulation						1
ASB-057	6/21/19		Building 9 Office / Coating on Fiberglass Pipe Fitting Insulation						1
ASB-058	6/21/19		Building 4 Roof / Roof Core						1
ASB-059	6/21/19		Building 4 Roof / Roof Core						1
ASB-060	6/21/19		Building 3 Upper Roof / Roof Core						1
ASB-061	6/21/19		Building 3 Lower Roof / Roof Core to Wood Deck						1
ASB-062	6/21/19		Building 5 Roof / Roof Core to Concrete Deck						1
ASB-063	6/21/19		Building 5 Roof / Roof Core to Concrete Deck						1

### Sample Collection & Custody Information

<sup>1</sup>Type: IA=Inside Area OA=Outside Area C=Clearance B=blank P=personal E=excursion

Sampled by [NAME] Zach Jones

Relinquished to lab by [NAME] Zach Jones

Received in lab by [NAME] SW, Snow

Signature [Signature]

Signature [Signature]

Date/Time 6/21/19 11:20

Date/Time 6/24/19 9:40 AM

Sample return requested

Ambient temp  Cool \_\_\_\_\_ °C

pH  Cl  JR  JS



# EMSL Analytical, Inc.

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<http://www.EMSL.com> / [indianapolislab@emsl.com](mailto:indianapolislab@emsl.com)

EMSL Order: 161912256

Customer ID: ENMG50

Customer PO: 119-10098

Project ID:

Attention: Joe Christy

Environmental Health Management

3701 Taylorsville Road

Suite 1

Louisville, KY 40220

Project: 119-10098 / Third Rock Georgetown WWTP

Phone: (502) 454-8530

Fax: (502) 454-8528

Received Date: 06/24/2019 9:40 AM

Analysis Date: 06/25/2019

Collected Date: 06/21/2019

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

Sample	Description	Appearance	Non-Asbestos		Asbestos % Type
			% Fibrous	% Non-Fibrous	
ASB-001 <small>161912256-0001</small>	Building 1 - Elastomeric Coating on 2" Pipe Elbow Insulation <i>Inseparable paint / coating layer included in analysis</i>	Tan/White/Yellow Fibrous Heterogeneous	50% Cellulose 20% Glass	30% Non-fibrous (Other)	None Detected
ASB-002 <small>161912256-0002</small>	Building 1 - Elastomeric Coating on 2" Pipe Elbow Insulation	Tan/White/Yellow Fibrous Heterogeneous	50% Cellulose 20% Glass	30% Non-fibrous (Other)	None Detected
ASB-003 <small>161912256-0003</small>	Building 1 - Coating on 2" Pipe Fitting Insulation	Brown/White Fibrous Heterogeneous	40% Glass	60% Non-fibrous (Other)	<1% Chrysotile
ASB-004 <small>161912256-0004</small>	Building 1 - Coating on 2" Pipe Fitting Insulation	Brown/White Fibrous Heterogeneous	40% Glass	60% Non-fibrous (Other)	<1% Chrysotile
ASB-005 <small>161912256-0005</small>	Building 1 - Roof / Roof Core	Black Non-Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
ASB-006 <small>161912256-0006</small>	Building 1 - Roof / Roof Core	Black Non-Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
ASB-007 <small>161912256-0007</small>	Building 1 - Roof / Roof Flashing	Black Fibrous Homogeneous	30% Cellulose	70% Non-fibrous (Other)	None Detected
ASB-008 <small>161912256-0008</small>	Building 1 - Roof / Roof Flashing	Black Fibrous Homogeneous	30% Cellulose 10% Glass	60% Non-fibrous (Other)	None Detected
ASB-009 <small>161912256-0009</small>	Building 1 - Window Caulk	Gray Non-Fibrous Homogeneous		98% Non-fibrous (Other)	2% Chrysotile
ASB-010 <small>161912256-0010</small>	Building 1 - Window Caulk	Gray Non-Fibrous Homogeneous		98% Non-fibrous (Other)	2% Chrysotile
ASB-011 <small>161912256-0011</small>	Building 2 - Window Glazing	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	<1% Chrysotile
ASB-012 <small>161912256-0012</small>	Building 2 - Window Glazing	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	<1% Chrysotile
ASB-013 <small>161912256-0013</small>	Building 2 - Roof Drain Elbow Insulation	White Fibrous Homogeneous	20% Cellulose 20% Min. Wool	50% Non-fibrous (Other)	10% Chrysotile
ASB-014 <small>161912256-0014</small>	Building 2 - Roof Drain Elbow Insulation	White Fibrous Homogeneous	20% Cellulose 20% Min. Wool	50% Non-fibrous (Other)	10% Chrysotile
ASB-015 <small>161912256-0015</small>	Building 3 - Coating on Fiberglass Duct Insulation	Brown/White/Silver Fibrous Homogeneous	50% Cellulose 10% Glass	40% Non-fibrous (Other)	None Detected

Initial report from: 06/25/2019 16:03:17



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<http://www.EMSL.com> / [indianapolislab@emsl.com](mailto:indianapolislab@emsl.com)

**EMSL Order:** 161912256  
**Customer ID:** ENMG50  
**Customer PO:** 119-10098  
**Project ID:**

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

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
ASB-016 <small>161912256-0016</small>	Building 3 - Coating on Fiberglass Duct Insulation	Brown/White/Silver Fibrous Homogeneous	50% Cellulose 10% Glass	40% Non-fibrous (Other)	None Detected
ASB-017 <small>161912256-0017</small>	Building 3 Office - Flooring	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
ASB-018 <small>161912256-0018</small>	Building 3 Office - Flooring	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
ASB-019 <small>161912256-0019</small>	Building 3 - Ceiling Tile	Gray/White Fibrous Homogeneous	40% Cellulose 40% Min. Wool	15% Perlite 5% Non-fibrous (Other)	None Detected
ASB-020 <small>161912256-0020</small>	Building 3 - Ceiling Tile	Gray/White Fibrous Homogeneous	40% Cellulose 40% Min. Wool	15% Perlite 5% Non-fibrous (Other)	None Detected
ASB-021-Drywall <small>161912256-0021</small>	Building 3 Office - Drywall & JC	Brown/White Fibrous Heterogeneous	20% Cellulose	70% Gypsum 10% Non-fibrous (Other)	None Detected
ASB-021-Joint Compound <small>161912256-0021A</small>	Building 3 Office - Drywall & JC	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
ASB-022-Drywall <small>161912256-0022</small>	Building 3 Office - Drywall & JC	Brown/White Fibrous Heterogeneous		100% Non-fibrous (Other)	None Detected
ASB-022-Joint Compound <small>161912256-0022A</small>	Building 3 Office - Drywall & JC	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
ASB-023-Drywall <small>161912256-0023</small>	Building 3 Office - Drywall & JC	Brown/White Fibrous Heterogeneous	20% Cellulose	70% Gypsum 10% Non-fibrous (Other)	None Detected
ASB-023-Joint Compound <small>161912256-0023A</small>	Building 3 Office - Drywall & JC	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
ASB-024 <small>161912256-0024</small>	Building 3 - Coating on Fiberglass Fitting Insulation	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	<1% Chrysotile
ASB-025 <small>161912256-0025</small>	Building 3 - Coating on Fiberglass Fitting Insulation	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	<1% Chrysotile
ASB-026 <small>161912256-0026</small>	Building 4 - Roof Drain Elbow Insulation	White Fibrous Homogeneous	10% Cellulose 20% Min. Wool	60% Non-fibrous (Other)	10% Chrysotile
ASB-027 <small>161912256-0027</small>	Building 4 - Roof Drain Elbow Insulation	White Fibrous Homogeneous	10% Cellulose 20% Min. Wool	60% Non-fibrous (Other)	10% Chrysotile
ASB-028 <small>161912256-0028</small>	Building 4 - Floor Tile, Top Layer, 12" Tan	Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
ASB-029 <small>161912256-0029</small>	Building 4 - Floor Tile, Top Layer, 12" Tan	Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
ASB-030-Floor Tile <small>161912256-0030</small>	Building 4 - Floor Tile, Bottom Layer, Blue	Blue Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected

Initial report from: 06/25/2019 16:03:17



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**EMSL Order:** 161912256  
**Customer ID:** ENMG50  
**Customer PO:** 119-10098  
**Project ID:**

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

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
ASB-030-Mastic <small>161912256-0030A</small>	Building 4 - Floor Tile, Bottom Layer, Blue	Brown/Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
ASB-031-Floor Tile <small>161912256-0031</small>	Building 4 - Floor Tile, Bottom Layer, Blue	Blue Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
ASB-031-Mastic <small>161912256-0031A</small>	Building 4 - Floor Tile, Bottom Layer, Blue	Brown/Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
ASB-032 <small>161912256-0032</small>	Building 4 - Ceiling Tile	Gray/White Fibrous Homogeneous	60% Cellulose 20% Min. Wool	15% Perlite 5% Non-fibrous (Other)	None Detected
ASB-033 <small>161912256-0033</small>	Building 4 - Ceiling Tile	Gray/White Fibrous Homogeneous	60% Cellulose 20% Min. Wool	15% Perlite 5% Non-fibrous (Other)	None Detected
ASB-034-Drywall <small>161912256-0034</small>	Building 4 - Drywall & JC	Brown/White Fibrous Heterogeneous	20% Cellulose	70% Gypsum 10% Non-fibrous (Other)	None Detected
ASB-034-Joint Compound <small>161912256-0034A</small>	Building 4 - Drywall & JC	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
ASB-035-Drywall <small>161912256-0035</small>	Building 4 - Drywall & JC	Brown/White Fibrous Heterogeneous	20% Cellulose	70% Gypsum 10% Non-fibrous (Other)	None Detected
ASB-035-Joint Compound <small>161912256-0035A</small>	Building 4 - Drywall & JC	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
ASB-036-Drywall <small>161912256-0036</small>	Building 4 - Drywall & JC	Brown/White Fibrous Heterogeneous	20% Cellulose	70% Gypsum 10% Non-fibrous (Other)	None Detected
ASB-036-Joint Compound <small>161912256-0036A</small>	Building 4 - Drywall & JC	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
ASB-037 <small>161912256-0037</small>	Building 4 - Window Glazing	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
ASB-038 <small>161912256-0038</small>	Building 4 - Window Glazing	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
ASB-039-Rubber Membrane <small>161912256-0039</small>	Building 6 - Roof / Roof Core	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
ASB-039-Insulation <small>161912256-0039A</small>	Building 6 - Roof / Roof Core	Brown Non-Fibrous Homogeneous		40% Perlite 60% Non-fibrous (Other)	None Detected
ASB-039-Foam <small>161912256-0039B</small>	Building 6 - Roof / Roof Core	Yellow Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
ASB-039-Felt <small>161912256-0039C</small>	Building 6 - Roof / Roof Core	Black Fibrous Homogeneous	60% Cellulose	40% Non-fibrous (Other)	None Detected

Initial report from: 06/25/2019 16:03:17



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**EMSL Order:** 161912256  
**Customer ID:** ENMG50  
**Customer PO:** 119-10098  
**Project ID:**

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

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
ASB-040-Rubber Membrane <small>161912256-0040</small>	Building 6 - Roof / Roof Core	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
ASB-040-Foam <small>161912256-0040A</small>	Building 6 - Roof / Roof Core	Yellow Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
ASB-040-Felt <small>161912256-0040B</small>	Building 6 - Roof / Roof Core	Black Fibrous Homogeneous	60% Cellulose	40% Non-fibrous (Other)	None Detected
ASB-041-Foam <small>161912256-0041</small>	Building 9 - Upper Roof / Roof Core to Metal Deck	Yellow Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
ASB-041-Felt <small>161912256-0041A</small>	Building 9 - Upper Roof / Roof Core to Metal Deck	Black Fibrous Homogeneous	60% Cellulose	40% Non-fibrous (Other)	None Detected
ASB-042 <small>161912256-0042</small>	Building 9 - Upper Roof / Roof Caulk	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
ASB-043-Foam <small>161912256-0043</small>	Building 9 - Lower Roof / Roof Core to Metal Deck	Yellow Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
ASB-043-Felt <small>161912256-0043A</small>	Building 9 - Lower Roof / Roof Core to Metal Deck	Black Fibrous Homogeneous	60% Cellulose	40% Non-fibrous (Other)	None Detected
ASB-044 <small>161912256-0044</small>	Building 9 - Lower Roof / Roof Caulk	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
ASB-045 <small>161912256-0045</small>	Building 9 - Press Shop / Spray Foam Insulation on Ceiling	White Fibrous Homogeneous	95% Glass	5% Non-fibrous (Other)	None Detected
ASB-046 <small>161912256-0046</small>	Building 9 - Press Shop / Spray Foam Insulation on Ceiling	White Fibrous Homogeneous	95% Glass	5% Non-fibrous (Other)	None Detected
ASB-047 <small>161912256-0047</small>	Building 9 - Press Office / Ceiling Tile	Gray/White Fibrous Homogeneous	60% Cellulose 20% Min. Wool	15% Perlite 5% Non-fibrous (Other)	None Detected
ASB-048 <small>161912256-0048</small>	Building 9 - Press Shop Restroom / Ceiling Tile	Gray/White Fibrous Homogeneous	60% Cellulose 20% Min. Wool	15% Perlite 5% Non-fibrous (Other)	None Detected
ASB-049-Floor Tile <small>161912256-0049</small>	Building 9 Office - Floor Tile, 12" Gray	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
ASB-049-Mastic <small>161912256-0049A</small>	Building 9 Office - Floor Tile, 12" Gray	Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
ASB-050-Floor Tile <small>161912256-0050</small>	Building 9 Office - Floor Tile, 12" Gray	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
ASB-050-Mastic <small>161912256-0050A</small>	Building 9 Office - Floor Tile, 12" Gray	Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
ASB-051-Drywall <small>161912256-0051</small>	Building 9 Office - Drywall & JC	Brown/White Fibrous Heterogeneous	20% Cellulose	70% Gypsum 10% Non-fibrous (Other)	None Detected

Initial report from: 06/25/2019 16:03:17



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**EMSL Order:** 161912256  
**Customer ID:** ENMG50  
**Customer PO:** 119-10098  
**Project ID:**

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

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
ASB-051-Joint Compound <small>161912256-0051A</small>	Building 9 Office - Drywall & JC	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
ASB-052-Drywall <small>161912256-0052</small>	Building 9 Office - Drywall & JC	Brown/White Fibrous Heterogeneous	20% Cellulose	70% Gypsum 10% Non-fibrous (Other)	None Detected
ASB-052-Joint Compound <small>161912256-0052A</small>	Building 9 Office - Drywall & JC	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
ASB-053-Drywall <small>161912256-0053</small>	Building 9 Office - Drywall & JC	Brown/White Fibrous Heterogeneous	20% Cellulose	70% Gypsum 10% Non-fibrous (Other)	None Detected
ASB-053-Joint Compound <small>161912256-0053A</small>	Building 9 Office - Drywall & JC	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
ASB-054 <small>161912256-0054</small>	Building 9 Office - Coating on Fiberglass HVAC Duct Insulation	White/Silver Fibrous Homogeneous	80% Cellulose	20% Non-fibrous (Other)	None Detected
ASB-055 <small>161912256-0055</small>	Building 9 Office - Coating on Fiberglass HVAC Duct Insulation	White/Silver Fibrous Homogeneous	80% Cellulose	20% Non-fibrous (Other)	None Detected
ASB-056 <small>161912256-0056</small>	Building 9 Office - Coating on Fiberglass Pipe Fitting Insulation	White/Blue/Yellow Fibrous Homogeneous	55% Glass	45% Non-fibrous (Other)	None Detected
ASB-057 <small>161912256-0057</small>	Building 9 Office - Coating on Fiberglass Pipe Fitting Insulation	White/Blue/Yellow Fibrous Homogeneous	55% Glass	45% Non-fibrous (Other)	None Detected
ASB-058-Roofing <small>161912256-0058</small>	Building 4 - Roof / Roof Core	Black Fibrous Heterogeneous	30% Cellulose	70% Non-fibrous (Other)	None Detected
ASB-058-Insulation <small>161912256-0058A</small>	Building 4 - Roof / Roof Core	Brown Fibrous Homogeneous	80% Cellulose	10% Perlite 10% Non-fibrous (Other)	None Detected
ASB-058-Foam <small>161912256-0058B</small>	Building 4 - Roof / Roof Core	Yellow Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
ASB-059-Roofing <small>161912256-0059</small>	Building 4 - Roof / Roof Core	Black Fibrous Heterogeneous	30% Cellulose	70% Non-fibrous (Other)	None Detected
ASB-059-Insulation <small>161912256-0059A</small>	Building 4 - Roof / Roof Core	Brown Fibrous Homogeneous	80% Cellulose	10% Perlite 10% Non-fibrous (Other)	None Detected
ASB-059-Foam <small>161912256-0059B</small>	Building 4 - Roof / Roof Core	Yellow Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
ASB-060-Insulation <small>161912256-0060</small>	Building 3 - Upper Roof / Roof Core	Brown Non-Fibrous Homogeneous		40% Perlite 60% Non-fibrous (Other)	None Detected
ASB-060-Foam <small>161912256-0060A</small>	Building 3 - Upper Roof / Roof Core	Yellow Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
ASB-060-Felt <small>161912256-0060B</small>	Building 3 - Upper Roof / Roof Core	Black Fibrous Homogeneous	60% Cellulose	40% Non-fibrous (Other)	None Detected

Initial report from: 06/25/2019 16:03:17



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**EMSL Order:** 161912256  
**Customer ID:** ENMG50  
**Customer PO:** 119-10098  
**Project ID:**

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

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
ASB-061-Foam <small>161912256-0061</small>	Building 3 - Lower Roof / Roof Core to Wood Deck	Yellow Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
ASB-061-Felt <small>161912256-0061A</small>	Building 3 - Lower Roof / Roof Core to Wood Deck	Black Fibrous Homogeneous	60% Cellulose	40% Non-fibrous (Other)	None Detected
ASB-062-Roofing <small>161912256-0062</small>	Building 5 - Roof Core to Concrete Deck	Black Fibrous Heterogeneous	30% Cellulose	70% Non-fibrous (Other)	None Detected
ASB-062-Foam <small>161912256-0062A</small>	Building 5 - Roof Core to Concrete Deck	Yellow Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
ASB-062-Felt <small>161912256-0062B</small>	Building 5 - Roof Core to Concrete Deck	Black Fibrous Homogeneous	60% Cellulose	40% Non-fibrous (Other)	None Detected
ASB-063-Roofing <small>161912256-0063</small>	Building 5 - Roof Core to Concrete Deck	Black Fibrous Heterogeneous	30% Cellulose	70% Non-fibrous (Other)	None Detected
ASB-063-Foam <small>161912256-0063A</small>	Building 5 - Roof Core to Concrete Deck	Yellow Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
ASB-063-Felt <small>161912256-0063B</small>	Building 5 - Roof Core to Concrete Deck	Black Fibrous Homogeneous	60% Cellulose	40% Non-fibrous (Other)	None Detected

Analyst(s)

Jadda Moffett (94)

Richard Harding, Laboratory Manager  
or Other Approved Signatory

EMSL maintains liability limited to cost of analysis. The above analyses were performed in general compliance with Appendix E to Subpart E of 40 CFR (previously EPA 600/M4-82-020 "Interim Method"), but augmented with procedures outlined in the 1993 ("final") version of the method. This report relates only to the samples reported above, 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. All samples received in acceptable condition unless otherwise noted. 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. EMSL recommends gravimetric reduction for all non-friable organically bound materials prior to analysis. Estimation of uncertainty is available on request.

Samples analyzed by EMSL Analytical, Inc. Indianapolis, IN NVLAP Lab Code 200188-0, AZ0939, CA 2575, CO AL-15132, TX 300262, LA 04135

Initial report from: 06/25/2019 16:03:17

United States Department of Commerce  
National Institute of Standards and Technology



**Certificate of Accreditation to ISO/IEC 17025:2005**

NVLAP LAB CODE: 200188-0

**EMSL Analytical, Inc.**  
Indianapolis, IN

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

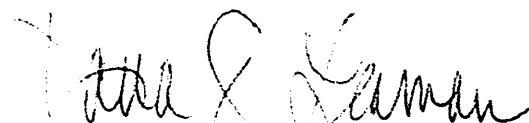
**Asbestos Fiber Analysis**

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

2019-04-01 through 2020-03-31

*Effective Dates*



  
For the National Voluntary Laboratory Accreditation Program



**SCOPE OF ACCREDITATION TO ISO/IEC 17025:2005**

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**ASBESTOS FIBER ANALYSIS**

**NVLAP LAB CODE 200188-0**

**Bulk Asbestos Analysis**

<u>Code</u>	<u>Description</u>
18/A01	EPA -- 40 CFR Appendix E to Subpart E of Part 763, Interim Method of the Determination of Asbestos in Bulk Insulation Samples
18/A03	EPA 600/R-93/116: Method for the Determination of Asbestos in Bulk Building Materials

**Airborne Asbestos Analysis**

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

A handwritten signature in black ink, appearing to read "David S. Gorman".

For the National Voluntary Laboratory Accreditation Program