



# ASBESTOS AND LEAD PAINT BUILDING MATERIALS SURVEY FOR: COMPUTING SERVICES MEMORIAL UNIVERSITY OF NEWFOUNDLAND



Prepared for:

Memorial University of Newfoundland

St. John's, NL

Pinchin LeBlanc Environmental Ltd Project No. 02-02-00900

March 27, 2013

#### EXECUTIVE SUMMARY

Pinchin LeBlanc Environmental Ltd. (Pinchin) was retained by Memorial University of Newfoundland to perform asbestos and lead paint surveys in selected buildings on the Memorial University of Newfoundland's St. John's, NL campus. A total of twenty-seven (27) buildings were surveyed for asbestos containing materials (ACM) and lead based paints (LBP). This report will provide the findings for the following location;

**BUILDING DESCRIPTION:** COMPUTING SERVICES COLLEGE

BUILDING ADDRESS: MEMORIAL UNIVERSITY OF NL, ST. JOHN'S CAMPUS, NL

A summary of the findings for the Computing Services Building (hereafter referred to as "Site Building") is provided. For specific recommendations regarding any hazardous materials listed the reader will refer to Sections 3 and 4 of this report:

- 1. Friable asbestos containing materials identified inside the Site Building include: parging cement.
- 2. Non-friable materials with the potential to become friable during renovation and demolition activities were identified inside the Site Building, specifically drywall joint compound.
- 3. Non-friable asbestos containing materials identified inside the Site Building include: incandescent heat shields.
- 4. Paints containing greater than 600 mg/kg of lead were identified in the Site Building, specifically the white and cream exterior paints.

This Executive Summary is subject to the same standard limitations as contained in the report and must be read in conjunction with the entire report.

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### 1.0 INTRODUCTION

Pinchin LeBlanc Environmental Limited (Pinchin) was retained by Memorial University of Newfoundland to perform asbestos and lead paint surveys in selected buildings on the Memorial University of Newfoundland's St. John's, NL campus. A total of twenty-seven (27) buildings were surveyed for asbestos containing materials (ACM) and lead based paints (LBP). This report will provide the findings for the following location;

**BUILDING DESCRIPTION:** COMPUTING SERVICES

BUILDING ADDRESS: MEMORIAL UNIVERSITY OF NL, ST. JOHN'S CAMPUS, NL

The report presents a detailed investigation of condition, quantity, location, access, and type of ACM and LBP present in the building. The Overview Report, provided under separate cover, provides detailed information regarding the survey methodology, sampling procedure, evaluation criteria, suspect materials and regulatory information.

Provincial regulations and guidelines distinguish between friable<sup>1</sup> and non-friable<sup>2</sup> materials. The asbestos building materials survey performed by Pinchin included a search for both friable and common non-friable ACM.

For reporting purposes, the survey will be divided into sections. The report is presented in this manner to accommodate ease in reading and to allow access to report information for specific areas or materials within the building. The report also addresses specific systems and products likely present in the building. The sections of the report are as follows:

- 2.0 Survey Information
- 3.0 ACM Survey Findings
- 4.0 LBP Survey Findings
- 5.0 Recommendations

<sup>1</sup> The term friable is applied to a material that can be readily reduced to dust or powder by hand or moderate pressure. Friable ACM has a much greater potential to release airborne asbestos fibres when disturbed. The most common friable ACM used in the past are sprayed or trowelled materials (for fireproofing or thermal insulation), texture plaster (decorative or acoustic), and mechanical insulations.

<sup>2</sup> Common non-friable ACM include vinyl floor tiles, ceiling tiles, gasket materials, asbestos cement pipe or board (transite), and asbestos textiles. Although a product may be considered non-friable when new, if the product releases fine dust due to deterioration or during removal, the free dust is considered friable. For example, most lay-in or glued on acoustic ceiling tiles release significant dust during removal of large quantities of these tiles.

#### 2.0 SURVEY INFORMATION

The survey was conducted on March 19<sup>th</sup>, 2013. The survey, collection of representative bulk samples, and recording of information was performed by Mr. Trent Hardy of Pinchin. All accessible areas of the building were inspected for the presence of asbestos containing materials (ACM) and lead based paints (LBP).

A total of fourteen (14) representative bulk samples were collected for analysis for asbestos content and six (6) bulk samples were collected for analysis of lead content.

### 3.0 ACM SURVEY FINDINGS

The ACM found during this survey are detailed in the location & data excel document provided to the client. The excel document serves as the clients active asbestos management plan. Quantities of materials identified, locations and friable or non-friable are also present in this excel file. Laboratory certificates for asbestos samples collected are presented in Appendix I and lead samples are presented in Appendix II. Sample location drawings are provided in Appendix III. A photographic record of the samples collected during the survey of the building is presented in Appendix IV. The following is summary of the findings for this building.

### 3.1 Sprayed or Trowelled Fireproofing and Thermal Insulation

No spray or trowelled fireproofing or thermal insulation was observed in the Site Building.

#### 3.2 Mechanical Insulation

Two (2) samples of suspect mechanical insulation materials were collected in the Site Building. A summary of the findings of the findings is provided below. For locations and conditions of these materials at the time of the building survey refer to location & data excel document.

- Insulating cement, also referred to as "parging cement", present on pipe and fittings was sampled in room 1C01, and contains 10% chrysotile asbestos (reference sample 02-02-900-S009).
- Debris suspected to be associated with an ACM pipe elbow was sampled above the ceiling in room 1C01. Analysis of this sample did not identify the presence of asbestos (reference sample 02-02-900-S007).

### 3.3 Acoustic Ceiling Tiles

Two (2) samples were collected of acoustic ceiling tiles were observed in the Site Building. A summary of the acoustic ceiling tiles samples collected is observed as follows. For locations and

conditions of these materials at the time of the building survey refer to location & data excel document.

- One (1) sample of 2'x 4' acoustic ceiling tiles distinguished with a pinhole and fleck pattern was collected from room 1C02. Analysis of this sample did not identify the presence of asbestos (reference sample 02-02-900-S003).
- One (1) sample of 2'x 4' acoustic ceiling tiles distinguished with a pinhole, hole, and small fissure pattern was collected from room 1010. Analysis of this sample did not identify the presence of asbestos (reference sample 02-02-900-S007).

### 3.4 Drywall, Plaster, and Texture Finishes

Drywall was used as a wall and ceiling finish throughout the building. Until the early to mid-1980s, drywall joint compound may have contained chrysotile asbestos. Drywall joint compound is considered a non-friable material. Most buildings of this type undergo constant renovation, including the removal and replacement of drywall partitions. Therefore extensive sampling of drywall compound is necessary to come to a reasonable conclusion regarding the extent of asbestos. Furthermore, any attempt to distinguish and delineate all asbestos-containing drywall compounds from new non-asbestos drywall compound is often unachievable. Therefore, drywall joint compound was sampled at walls, which were believed to be original to try to define the presence of asbestos content in the original drywall compound.

Five (5) samples, in total, of drywall joint compound were collected in the Site Building. Results from three (3) of the five (5) samples collected contain 3% chrysotile asbestos (reference samples, 02-02-900-S006, S010, S013, S002, and S014).

Plaster was not observed in use as a wall and/or ceiling finish in the Site Building. It should be noted that plaster can at times be difficult to distinguish from other wall and ceiling finishes such as drywall and concrete. Should plaster be encountered during any demolition or renovation activities, it should be sampled for analysis for asbestos content.

### 3.5 Vinyl Flooring Materials

Four (4) types of vinyl floor tiles were observed in the Site Building. A list of the four (4) visually different vinyl floor tiles is provided below:

Green with abundant grey fleck, 12"x 12" vinyl floor tiles were sampled in room 1C02.
 Analysis of this sample and the associated tar mastic adhesive and leveling compound did not identify the presence of asbestos (reference sample 02-02-900-S001).

- White with abundant grey fleck, 12"x 12" vinyl floor tiles were sampled in room 1017. Analysis of this sample and the associated tar mastic adhesive did not identify the presence of asbestos (reference sample 02-02-900-S004).
- White with black streak, 12"x 12" vinyl floor tiles were sampled in room 1C02. Analysis of this sample and the associated tar mastic adhesive did not identify the presence of asbestos (reference sample 02-02-900-S005).
- Light brown with abundant brown fleck, 12"x 12" vinyl floor tiles were sampled in room 1V01. Analysis of this sample and the associated tar mastic adhesive and leveling compound did not identify the presence of asbestos (reference sample 02-02-900-S011).

### 3.6 Asbestos Cement Products

No suspected asbestos cement products were observed in the Site Building.

#### 3.7 Vermiculite Insulation

No vermiculite containing products were observed. Visual observations were made above the ceiling and through any hatches.

### 3.8 Other Asbestos Containing Materials

An incandescent heat shield was sampled from a light fixture in room 1V01, and contains 60% chrysotile asbestos (reference sample 02-02-900-S012). For locations and conditions of these materials at the time of the building survey refer to location & data excel document.

### 4.0 LBP SURVEY FINDINGS

Analytical results indicate that two (2) of the samples collected of painted surfaces would be considered a risk to worker exposure during construction or renovation activities (with lead concentrations exceeding 0.06%). The white exterior paint (reference sample 02-02-900-L005) contains 0.27%, and the cream exterior paint (reference sample 02-02-900-L006) contains 0.39%, and the same paint colours located elsewhere, should be managed as lead-containing.

### 5.0 RECOMMENDATIONS

Asbestos containing materials have been identified in the Site Building. Listed below are a series of general recommendations for the Site Building. Recommendations provided in the Overview Report may also be reviewed and applied to this building.

### Friable ACMs

Friable asbestos containing materials identified inside the Site Building include: parging cement.

- 1. Type III (high risk) asbestos abatement procedures should be carried out for the scheduled removal of greater than 1ft<sup>2</sup> of friable asbestos containing materials. Alternatively, Type II (moderate risk) glove bag abatement procedures may be applied where practical;
- 2. Type II (moderate risk) asbestos abatement procedures should be carried out for the scheduled repair or enclosure of friable ACMs or for the removal of less than 1ft<sup>2</sup> of material;

### Potentially Friable Materials

Non-friable materials with the potential to become friable during renovation and demolition activities were identified inside the Site Building, specifically drywall joint compound.

1. Under the NL guidance documents for moderate and low risk asbestos abatement procedures, quantities of these materials within an enclosure exceeding 100 ft<sup>2</sup> should be removed using Type III (high risk) asbestos abatement procedures. Quantities less than 100 ft<sup>2</sup> but exceeding 10ft<sup>2</sup> should be removed using Type II (moderate risk) asbestos abatement procedures, while quantities less than 10 ft<sup>2</sup> should be removed using Type I (low risk) asbestos abatement procedures.

### Non-Friable Materials

Non-friable asbestos containing materials identified inside the Site Building include: incandescent heat shields.

- 1. Type I (low risk) asbestos abatement procedures should be carried out for the scheduled disturbance of any non-friable materials provided the materials can be removed intact, and without the use of powered hand tools.
- 2. Should the use of powered hand tools or excessive breakage of the materials become necessary, Type II (moderate risk) asbestos abatement procedures should be adopted.

### Lead Based Paints

- 1. Do not grind, sand, torch or cut lead materials without using proper procedures, as material poses a health hazard if disturbed by these methods.
- 2. Any painted surfaces visually matching the identified paint colors should be managed as lead containing and necessary precautions (i.e.: worker protection) should be employed prior to the disturbance to these materials.

3. Should there be any questions pertaining to the contents of this report, please do not hesitate to contact the undersigned at our office.

### Pinchin LeBlanc Environmental Limited

Prepared by;

Trent Hardy; P. Geo Project Geoscientist

APPENDIX I

ASBESTOS ANALYTICAL REPORT



# **Bulk Asbestos Analysis**

By Polarized Light Microscopy EPA Method: 600/R-93/116 and 600/M4-82-020



Customer: Pinchin LeBlanc Environmental

27 Austin St 2nd Flr

St Johns NL A1B 4C3

Project: 02-02-00900 Computing Services

Attn: Dawn Benteau Paul Staeben

vn Benteau Lab Order ID:

Analysis ID:

1305367 1305367\_PLM

Date Received:

3/25/2013

Date Reported:

3/27/2013

Sample ID	Description	Asbestos	Fibrous	Non-Fibrous	Attributes
Lab Sample ID	Lab Notes		Components	Components	Treatment
02-02-900- S001 - A	12"x12" vinyl floor tiles, green with abundant grey flecks	None Detected		100% Other	Green Non Fibrous Homogeneous
	tile				Dissolved
02-02-900- S001 - B	12"x12" vinyl floor tiles, green with abundant grey flecks	None Detected		100% Other	Yellow Non Fibrous Homogeneous
1305367PLM_15	mastic				Dissolved
02-02-900- S001 - C	12"x12" vinyl floor tiles, green with abundant grey flecks	None Detected	2% Cellulose	98% Other	Gray Non Fibrous Homogeneous
1305367PLM_16	leveling compound				Crushed
02-02-900- S002	drywall joint compound	None Detected		100% Other	White Non Fibrous Homogeneous
1305367PLM_2	1				Crushed
02-02-900- S003	2"x4" acoustic ceiling tile, pinhole & fleck	None Detected	40% Cellulose 40% Fiber Glass	20% Other	White Non Fibrous Homogeneous
1305367PLM_3					Teased
02-02-900- S004 - A	12"x12" vinyl floor tiles, white with abundant grey flecks	None Detected		100% Other	White Non Fibrous Homogeneous
1305367PLM_4	tile				Dissolved
02-02-900- S004 - B	12"x12" vinyl floor tiles, white with abundant grey flecks	None Detected		100% Other	Black Non Fibrous Homogeneous
1305367PLM_17	mastic				Dissolved
02-02-900- S005 - A	12"x 12" vinyl floor tiles, white with black streaks	None Detected		100% Other	White Non Fibrous Homogeneous
1305367PLM 5	tile				Dissolved

Disclaimer: Due to the nature of the EFA 600 method, asbestos may not be detected in samples containing low levels of asbestos. We strongly recommended that analysis of floor tiles, vermiculite, and/or heterogeneous soil samples be conducted by TEM for confirmation of "None Detected" by PLM. This report relates only to the samples tested and may not be reproduced, except in full, without the written approval of SAI. This report may not be used by the client to claim product endorsement by NVLAP or any other agency of the U.S. government. Estimated MDL is 0.1%,

Bart Huber (19)	Talky blu_
Analyst	Approved Signatory



# Bulk Asbestos Analysis

By Polarized Light Microscopy EPA Method: 600/R-93/116 and 600/M4-82-020



Customer: Pinchin LeBlanc Environmental

27 Austin St 2nd Flr

St Johns NL A1B 4C3

Project: 02-02-00900 Computing Services

Attn: Dawn Benteau Paul Staeben

n Benteau Lab Order ID:

Analysis ID:

1305367 1305367\_PLM

Date Received:

3/25/2013

Date Reported:

3/27/2013

Sample ID  Lab Sample ID	Description  Lab Notes	Asbestos	Fibrous Components	Non-Fibrous Components	Attributes Treatment
02-02-900- S005 - B	12"x12" vinyl floor tiles, white with black streaks	None Detected		100% Other	Black Non Fibrous Homogeneous
1305367PLM_18	mastic-small sample				Dissolved
02-02-900- S006	drywall joint compound	3% Chrysotile		97% Other	White Non Fibrous Homogeneous
/305367PLM_6					Crushed
02-02-900- S007	2"X2" acoustic ceiling tile, pinhole, hole and small fissure	None Detected	40% Cellulose 40% Fiber Glass	20% Other	White Non Fibrous Homogeneous
1305367PLM_7					Teased
02-02-900 <b>-</b> S008	suspect parging debris above ceiling tiles	None Detected	10% Cellulose	90% Other	White Non Fibrous Homogeneous
1305367PLM_8					Crushed
02-02-900- S009	parging cement on elbows	10% Chrysotile		90% Other	Gray Non Fibrous Homogeneous
1305367PLM_9					Crushed
02-02-900- S010	drywall joint compound	3% Chrysotile		97% Other	White Non Fibrous Homogeneous
1305367PIM_10	1				Crushed
02-02-900- S011 - A	12"x12" virryl floor tiles, light brown with abundant brown flecks	None Detected		100% Other	Tan Non Fibrous Homogeneous
1305367PIM_11	ule				Dîssolved
02-02-900- S011 - B	12"x12" vinyl floor tiles, light brown with abundant brown flecks	None Detected		100% Other	Black Non Fibrous Homogeneous
1305367PLM_19	mastic				Dissolved

Disclaimer: Due to the nature of the EPA 600 method, asbestos may not be detected in samples containing low levels of asbestos. We strongly recommended that analysis of floor tiles, vermiculite, and/or heterogeneous soil samples be conducted by TEM for confirmation of "Nove Detected" by PLM. This report relates only to the samples tested and may not be reproduced, except in full, without the written approval of SAI. This report may not be used by the client to claim product endorsement by NVLAP or any other agency of the U.S. government. Estimated MDL is 0.1%.

Bart Huber (19)	Talhar ble
Analyst	Approved Signatory



# **Bulk Asbestos Analysis**

By Polarized Light Microscopy EPA Method: 600/R-93/116 and 600/M4-82-020



Customer: Pinchin LeBlanc Environmental

27 Austin St

2nd Flr

St Johns NL A1B 4C3

Project: 02-02-00900 Computing Services

Attn: Dawn Benteau

Paul Staeben

Lab Order ID:

1305367

Analysis ID:

1305367\_PLM

Date Received:

3/25/2013

Date Reported: 3/27/2013

Sample ID	Description  Lab Notes	Asbestos	Fibrous Components	Non-Fibrous Components	Attributes Treatment
02-02-900- S012	incandescent heat sheild	60% Chrysotile	20% Cellulose	20% Other	Gray Non Fibrous Homogeneous
1305367PLM_12			1		Teased
02-02-900- S013	drywall joint compound	3% Chrysotile		97% Other	White Non Fibrous Homogeneous
1305367PLM_13					Crushed
02-02-900- S014	drywall joint compound	None Detected		100% Other	White Non Fibrous Homogeneous
1305367PLM_14					Crushed

Disclaimer: Due to the nature of the EPA 600 method, asbestos may not be detected in samples containing low levels of asbestos. We strongly recommended that analysis of floor tiles, vermiculite, and/or heterogeneous soil samples be conducted by TEM for confirmation of "None Detected" by PLM. This report relates only to the samples tested and may not be reproduced, except in full, without the written approval of SAI. This report may not be used by the elient to claim product endorsement by NVLAP or any other agency of the U.S. government. Estimated MDL is 0.1%.

Bart Huber (19)

Analyst

APPENDIX II
LEAD PAINT ANALYTICAL REPORT



Project: 02-02-00900

# Analysis for Lead Concentration in Paint Chips



by Flame Atomic Absorption Spectroscopy EPA SW-846 3rd Ed. Method No. 3050B/Method No. 7420

Customer: Pinchin LeBlanc Environmental

27 Austin St 2nd Flr

St Johns NL A1B 4C3

Attn: Dawn Benteau Paul Staeben

Lab Order ID:

1305361

Analysis ID:

1305361\_PBP

Date Received:

3/25/2013

**Date Reported:** 

3/26/2013

Sample ID  Lab Sample ID	Description  Lab Notes	Mass (g)	Analytical Sensitivity (% by weight)	Concentration (% by weight)
02-02-900-L001	Cream	0.0364	0.004%	< 0.011%
02-02-900-L002 1305361PBP_2	Green	0.0380	0.004%	0.019%
02-02-900-L003	Grey	0.0644	0.002%	< 0.006%
02-02-900-L004 1305361PBP_4	Yellow	0.0658	0.002%	< 0.006%
02-02-900-L005	White	0.0546	0.002%	0.27%
02-02-900-L006 1305361PBP_6	Cream	0.0922	0.001%	0.39%

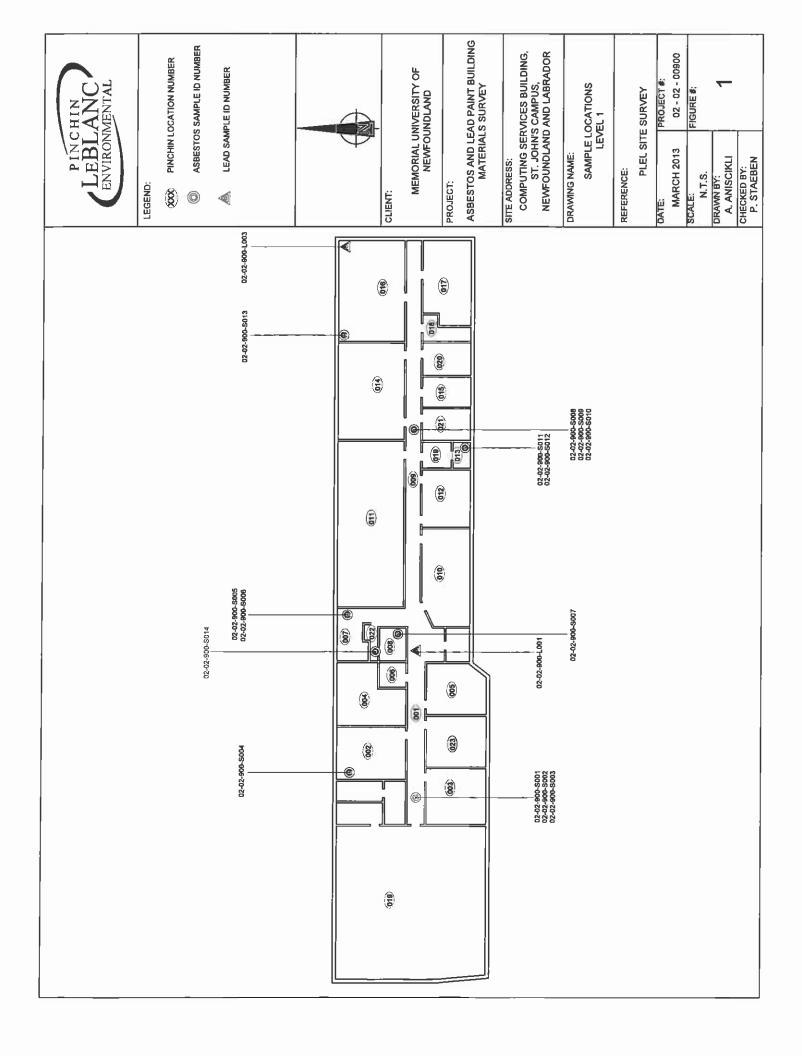
The quality control samples run with the samples in this report have passed all AlliA required specifications unless otherwise noted. This report relates only to the samples tested and may not be reproduced, except in full, without the written approval of SAI. This report may not be used by the client to claim product endorsement by AlliA or any other agency of the U.S. government. (R.L. = 0.01 wt.%)

Melissa Sharps (6)

Laboratory Director

APPENDIX III

SITE DRAWINGS



APPENDIX IV

**SAMPLE LOG** 

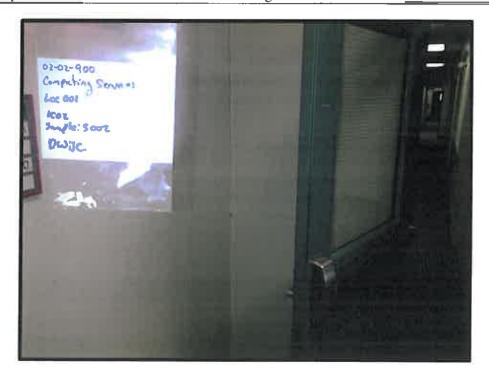


Sample #:	S001		Date Sampled:	March 19, 2013	-	
Building:	Computing Services		Sampler:	Trent Hardy		
Location:	001, room 1002		Analysis:	SAI - PLM		
MUN Project #:	02-02-900		Work Order #:			
		Bulk S	Sampling Parameters	-		
Pipe/Tank	Flooring		Ceiling	Roofing	Location	
☐ Insulation	X 12'x12' Tile	□Те	extured	☐ Shingle	X Floor	
☐ Elbow	□ 9'x9'Tile	□ St	иссо	☐ Rolled	☐ Wall Orientation	
☐ Fitting	□ Vinyl Sheet	☐ Popcorn		☐ Felt	☐ Ceiling	
☐ Transite Pipe	☐ Mastic	□ D'	ŴJC	□ Tar	☐ Above Ceiling	
☐ Gasket	Wall	□ Pla	aster		☐ Other	
☐ Tank Insulation	☐ Transite Panel		coustic Tile (Dropped)			
☐ Pipe Wrap	□ Textured Wall		coustic Tile (Glued-on)			
HVAC	☐ Plaster		astic	Miscellaneous:		
☐ Insulation	□ DWJC		Structural			
☐ Tape		□ Ste	eel F. P. ing	No. of Phases:		
☐ Paper Wrap		□ De	eck F. P. ing	Colour: Green flecks	with abundant grey	





ONIVERSITY									
Sample #:	Sample #: S002		Date Sampled:	March 19, 2013					
Building: Computing Services		Sampler:	Trent Hardy						
Location:	001, hallway 1C02		Analysis:	SAI - PLM					
MUN Project #:	02-02-900		Work Order #:						
		Bulk	Sampling Parameters						
Pipe/Tank	Flooring		Ceiling	Roofing	Location				
☐ Insulation	□12'x12' Tile	$\square$ T	extured	☐ Shingle	☐ Floor				
☐ Elbow	□ 9'x9'Tile	☐ Stucco		☐ Rolled	XWall Orientation				
☐ Fitting	□ Vinyl Sheet	$\square$ P	opcom	☐ Felt	☐ Ceiling				
☐ Transite Pipe	☐ Mastic		WJC	□ Таг	☐ Above Ceiling				
☐ Gasket	Wall	$\square$ P	laster		☐ Other				
☐ Tank Insulation	□ Transite Panel	$\Box$ A	coustic Tile (Dropped)						
☐ Pipe Wrap	☐ Textured Wall	$\Box$ A	coustic Tile (Glued-on)						
HVAC	☐ Plaster	☐ Mastic		Miscellaneous:					
☐ Insulation	X DWJC		Structural						
□ Tape		$\square$ S	teel F. P. ing	No. of Phases:	_				
☐ Paper Wrap		☐ Deck F. P. ing		Colour:					



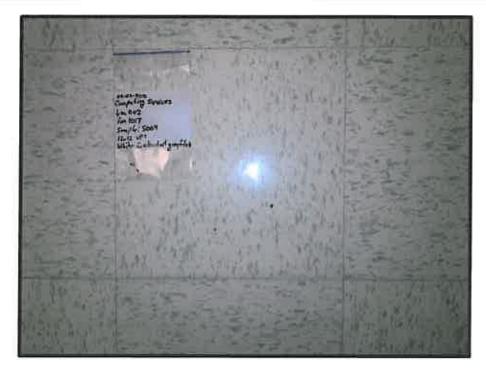


ONIVERSITY								
Sample #:	S003		Date Sampled:	March 19, 2013				
Building:	Computing Services		Sampler:	Trent Hardy				
Location:	001, hallway 1C02		Analysis:	SAI - PLM				
MUN Project #:	02-02-900		Work Order #:					
Bulk Sampling Parameters								
Pipe/Tank Flooring		Ceiling	Roofing	Location				
☐ Insulation	□12'x12' Tile	$\Box$ T	extured	☐ Shingle	□ Floor			
□ Elbow	□ 9'x9'Tile	☐ Stucco		☐ Rolled	☐ Wall Orientation			
☐ Fitting	□ Vinyl Sheet	☐ Popcom		□ Felt	X Ceiling			
☐ Transite Pipe	□ Mastic		WJC	☐ Tar	☐ Above Ceiling			
☐ Gasket	Wall	$\Box$ P	laster		□ Other			
☐ Tank Insulation	Transite Panel	XAc	oustic Tile (Dropped)					
☐ Pipe Wrap	□ Textured Wall		coustic Tile (Glued-on)					
HVAC	☐ Plaster	☐ Plaster ☐ Mastic		Miscellaneous:	2' x 4' pinhole fleck			
☐ Insulation	□ DWJC		Structural		_			
☐ Tape		$\square$ S	teel F. P. ing	No. of Phases:				
☐ Paper Wrap			eck F. P. ing	Colour:				





Sample #:	S004	Date Sampled:	March 19, 2013	larch 19, 2013				
Building: Computing Services		es Sampler:	Trent Hardy					
Location:	002, room 1017	Analysis:	SAI - PLM					
MUN Project #:	02-02-900	Work Order #:						
		<b>Bulk Sampling Parameters</b>						
Pipe/Tank	Flooring	Ceiling	Roofing	Location				
☐ Insulation	X12'x12' Tile	☐ Textured	☐ Shingle	X Floor				
☐ Elbow	□ 9'x9'Tile	☐ Stucco	☐ Rolled	■ Wall Orientation				
☐ Fitting	□ Vinyl Sheet	□ Popcom	☐ Felt	☐ Ceiling				
☐ Transite Pipe	☐ Mastic	□ DWJC	☐ Tar	☐ Above Ceiling				
☐ Gasket	Wall	☐ Plaster		☐ Other				
☐ Tank Insulation	☐ Transite Panel	☐ Acoustic Tile (Dropped)						
☐ Pipe Wrap	☐ Textured Wall	☐ Acoustic Tile (Glued-on)						
HVAC	☐ Plaster	☐ Mastic	Miscellaneous: White with					
HVAC □ Plaster		□ IVIastic	abundant grey flecks					
☐ Insulation	□ DWJC	Structural						
☐ Tape		☐ Steel F. P. ing	No. of Phases:					
☐ Paper Wrap		□ Deck F. P. ing	Colour:					





VIII EIVOIT I									
Sample #:	S005		Date Sampled:	March 19, 2013					
Building: Computing Service		es	Sampler:	Trent Hardy					
Location:	007, room 1012		Analysis:	SAI - PLM					
MUN Project#:	02-02-900		Work Order#:						
		Bulk	Sampling Parameters						
Pipe/Tank	Flooring		Ceiling	Roofing	Location				
☐ Insulation	X12'x12' Tile	$\Box$ T	extured	☐ Shingle	X Floor				
□ Elbow	☐ 9'x9'Tile		tucco	☐ Rolled	☐ Wall Orientation				
☐ Fitting	□ Vinyl Sheet	□ Po	opcorn	☐ Felt	☐ Ceiling				
☐ Transite Pipe	☐ Mastic	$\Box$ D	WJC	□ Tar	☐ Above Ceiling				
☐ Gasket	Wall	□ P:	laster		☐ Other				
☐ Tank Insulation	□ Transite Panel		coustic Tile (Dropped)						
☐ Pipe Wrap	☐ Textured Wall	$\Box$ A	coustic Tile (Glued-on)						
HVAC	□ Plaster		lastic	Miscellaneous: streaks	White with black				
☐ Insulation	□ DWJC		Structural						
☐ Tape			teel F. P. ing	No. of Phases:					
☐ Paper Wrap		$\Box$ D	eck F. P. ing	Colour:					



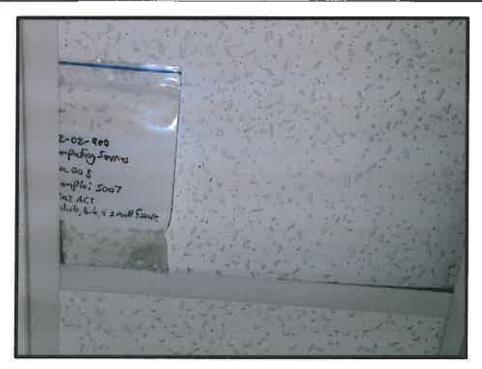


Sample #:	S006		Date Sampled:	March 19, 2013	
Building:	Computing Service	s	Sampler:	Trent Hardy	
Location:	007, room 1012		Analysis:	SAI - PLM	
MUN Project #:	02-02-900		Work Order#:		
		Bulk	Sampling Parameters		
Pipe/Tank	Flooring		Ceiling	Roofing	Location
☐ Insulation	□12'x12' Tile	T	extured	☐ Shingle	□ Floor
□ Elbow	□ 9'x9'Tile	☐ Stucco		☐ Rolled	X Wall Orientation
☐ Fitting	□ Vinyl Sheet	□ Popcom		☐ Felt	☐ Ceiling
☐ Transite Pipe	□ Mastic	□ DWJC		☐ Tar	☐ Above Ceiling
☐ Gasket	Wall	$\square$ P	laster		☐ Other
☐ Tank Insulation	☐ Transite Panel	$\Box A$	coustic Tile (Dropped)		
☐ Pipe Wrap	□ Textured Wall	$\Box$ A	coustic Tile (Glued-on)		
HVAC	☐ Plaster	☐ Mastic		Miscellaneous:	
☐ Insulation	X DWJC		Structural		
☐ Tape		$\square$ S	teel F. P. ing	No. of Phases:	
☐ Paper Wrap			eck F. P. ing	Colour:	





OHITEKSII				
Sample #:	S007	Date Sampled:	March 19, 2013	
Building:	Computing Service	es Sampler:	Trent Hardy	
Location:	008, room 1019	Analysis:	SAI - PLM	
MUN Project #:	02-02-900	Work Order #:		
		<b>Bulk Sampling Parameters</b>	-	
Pipe/Tank	Flooring	Ceiling	Roofing	Location
☐ Insulation	□12'x12' Tile	☐ Textured	☐ Shingle	☐ Floor
☐ Elbow	□ 9'x9'Tile	☐ Stucco	□ Rolled	☐ Wall Orientation
☐ Fitting	□ Vinyl Sheet	☐ Popcom	☐ Felt	X Ceiling
☐ Transite Pipe	☐ Mastic	□ DWJC	□ Tar	☐ Above Ceiling
☐ Gasket	Wall	☐ Plaster		☐ Other
☐ Tank Insulation	☐ Transite Panel	X Acoustic Tile (Dropped)		
☐ Pipe Wrap	□ Textured Wall	☐ Acoustic Tile (Glued-on)		
HVAC	☐ Plaster	☐ Mastic	Miscellaneous:	2' x 2' pinhole,
HVAC	□ Flaster	□ Iviastic	hole, and small	fissure
☐ Insulation	□ DWJC	Structural		
☐ Tape		☐ Steel F. P. ing	No. of Phases:	
☐ Paper Wrap		☐ Deck F. P. ing	Colour:	





OMIACION				
Sample #:	S008	Date Sampled:	March 19, 2013	
Building:	Computing Service	es Sampler:	Trent Hardy	
Location:	009, hallway 1C01	Analysis:	SAI - PLM	
MUN Project #:	02-02-900	Work Order#:		·
		<b>Bulk Sampling Parameters</b>		
Pipe/Tank	Flooring	Ceiling	Roofing	Location
☐ Insulation	□12'x12' Tile	☐ Textured	☐ Shingle	☐ Floor
X Elbow	☐ 9'x9'Tile	☐ Stucco	☐ Rolled	☐ Wall Orientation
☐ Fitting	□ Vinyl Sheet	☐ Popcorn	☐ Felt	☐ Ceiling
☐ Transite Pipe	☐ Mastic	□ DWJC	☐ Tar	X Above Ceiling
☐ Gasket	Wall	☐ Plaster		☐ Other
☐ Tank Insulation	□ Transite Panel	☐ Acoustic Tile (Dropped)		
☐ Pipe Wrap	☐ Textured Wall	☐ Acoustic Tile (Glued-on)		
HVAC	☐ Plaster	☐ Mastic	Miscellaneous:	Parging debris
☐ Insulation	□ DWJC	Structural		
☐ Tape		☐ Steel F. P. ing	No. of Phases:	
☐ Paper Wrap		□ Deck F. P. ing	Colour:	



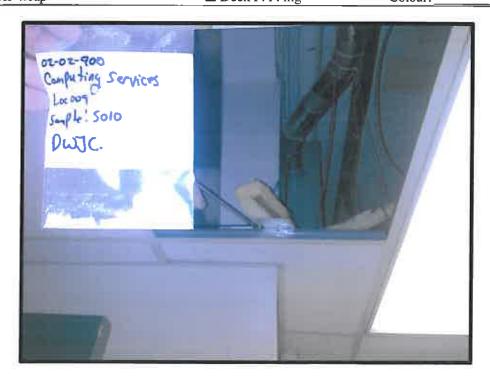


ONIVERSII	I				
Sample #:	S009	Date Sampled:	March 19, 2013		
Building:	Computing Service	s Sampler:	Trent Hardy		
Location:	009, hallway 1C01	Analysis:	SAI - PLM		
MUN Project #:	02-02-900	Work Order #:			
		<b>Bulk Sampling Parameters</b>			
Pipe/Tank	Flooring	Ceiling	Roofing	Location	
☐ Insulation	□12'x12' Tile	☐ Textured	☐ Shingle	☐ Floor	
X Elbow	□ 9'x9'Tile	☐ Stucco	☐ Rolled	☐ Wall Orientation	
☐ Fitting	□Vinyl Sheet	□ Popcom	☐ Felt	☐ Ceiling	
☐ Transite Pipe	☐ Mastic	□ DWJC	☐ Tar	X Above Ceiling	
☐ Gasket	Wall	☐ Plaster		☐ Other	
☐ Tank Insulation	☐ Transite Panel	☐ Acoustic Tile (Dropped)			
🗖 Pipe Wrap	☐ Textured Wall	☐ Acoustic Tile (Glued-on)			
HVAC	☐ Plaster	☐ Mastic	Miscellaneous: Parging cement		
☐ Insulation	□ DWJC	Structural			
☐ Tape		☐ Steel F. P. ing	No. of Phases:		
☐ Paper Wrap		Deck F. P. ing	Colour:		



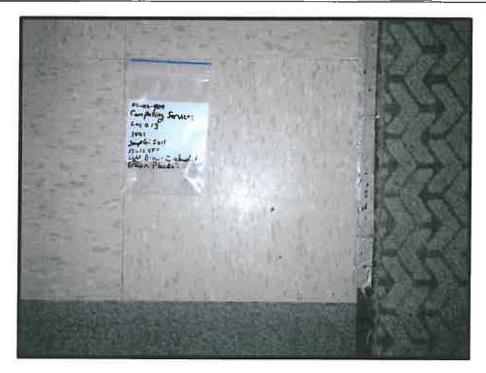


	1				
Sample #:	S010	Date Sampled:	March 19, 2013		
Building:	Computing Service	s Sampler:	Trent Hardy	Trent Hardy	
Location:	009, hallway 1C01	Analysis:	SAI - PLM		
MUN Project #:	02-02-900	Work Order#:			
		<b>Bulk Sampling Parameters</b>			
Pipe/Tank	Flooring	Ceiling	Roofing	Location	
☐ Insulation	□12'x12' Tile	☐ Textured	☐ Shingle	☐ Floor	
☐ Elbow	☐ 9'x9'Tile	☐ Stucco	□ Rolled	X Wall Orientation	
☐ Fitting	□ Vinyl Sheet	☐ Popcorn	☐ Felt	☐ Ceiling	
☐ Transite Pipe	☐ Mastic	□ DWJC	□ Таг	☐ Above Ceiling	
☐ Gasket	Wall	☐ Plaster		☐ Other	
☐ Tank Insulation	□ Transite Panel	☐ Acoustic Tile (Dropped)			
☐ Pipe Wrap	□ Textured Wall	☐ Acoustic Tile (Glued-on)			
HVAC	☐ Plaster	☐ Mastic	Miscellaneous:		
☐ Insulation	X DWJC	Structural			
☐ Tape		☐ Steel F. P. ing	No. of Phases:		
☐ Paper Wrap		□ Deck F. P. ing	Colour		





O IAI A FIX O I			<u> </u>		
Sample #:	S011		Date Sampled:	March 19, 2013	
Building:	Computing Services		Sampler:	Trent Hardy	
Location:	013, corridor 1V01		Analysis:	SAI - PLM	
MUN Project #:	02-02-900		Work Order #:		
		Bulk	Sampling Parameters		-
Pipe/Tank	Flooring		Ceiling	Roofing	Location
☐ Insulation	X12'x12' Tile	ПТ	extured	☐ Shingle	X Floor
☐ Elbow	□ 9'x9'Tile	☐ Stucco		☐ Rolled	☐ Wall Orientation
☐ Fitting	□ Vinyl Sheet	☐ Popcom		☐ Felt	☐ Ceiling
☐ Transite Pipe	☐ Mastic	□ DWJC		🗆 Таг	☐ Above Ceiling
☐ Gasket	Wall	□P	laster		□ Other
☐ Tank Insulation	☐ Transite Panel	$\Box$ A	coustic Tile (Dropped)		
☐ Pipe Wrap	☐ Textured Wall	$\Box$ A	coustic Tile (Glued-on)		
HVAC	☐ Plaster	☐ Mastic		Miscellaneous:	
□ Insulation	□ DWJC		Structural		
☐ Tape		$\square$ S	teel F. P. ing	No. of Phases:	
☐ Paper Wrap			eck F. P. ing	Colour: Brown brown flecks	with abundant





ONIVERSII	Y					
Sample #:	S012	Date Sampled:	March 19, 2013	March 19, 2013		
Building:	Computing Service	s Sampler:	Trent Hardy	Trent Hardy		
Location:	013, comidor 1V01	Analysis:	SAI - PLM			
MUN Project #:	02-02-900	Work Order #:	-			
		<b>Bulk Sampling Parameters</b>				
Pipe/Tank	Flooring	Ceiling	Roofing	Location		
☐ Insulation	□12'x12' Tile	☐ Textured	☐ Shingle	□ Floor		
☐ Elbow	□ 9'x9'Tile	☐ Stucco	☐ Rolled	☐ Wall Orientation		
☐ Fitting	□ Vinyl Sheet	☐ Popcom	☐ Felt	☐ Ceiling		
☐ Transite Pipe	☐ Mastic	□ DWJC	🗆 Таг	☐ Above Ceiling		
☐ Gasket	Wall	□ Plaster		X Other (Light Fixture)		
☐ Tank Insulation ☐ Pipe Wrap	☐ Transite Panel☐ Textured Wall	☐ Acoustic Tile (Dropped) ☐ Acoustic Tile (Glued-on)		1 ixtuic)		
HVAC	☐ Plaster	☐ Mastic	Miscellaneous: shield	Incandescent heat		
☐ Insulation	□ DWJC	Structural				
☐ Tape		☐ Steel F. P. ing	No. of Phases:			
☐ Paper Wrap		□ Deck F P ing	Colour			





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Sample #:	S013	Date Sampled:	March 19, 2013	
Building:	Computing Service	es Sampler:	Trent Hardy	
Location:	016, room 1000	Analysis:	SAI - PLM	
MUN Project #:	02-02-900	Work Order #:		
		<b>Bulk Sampling Parameters</b>		
Pipe/Tank	Flooring	Ceiling	Roofing	Location
☐ Insulation	□12'x12' Tile	☐ Textured	☐ Shingle	☐ Floor
□ Elbow	□ 9'x9'Tile	☐ Stucco	□ Rolled	X Wall Orientation
☐ Fitting	Vinyl Sheet	☐ Popcorn	□ Felt	☐ Ceiling
☐ Transite Pipe	☐ Mastic	□ DWJC	□ Tar	☐ Above Ceiling
☐ Gasket	Wall	☐ Plaster		□ Other
☐ Tank Insulation	☐ Transite Panel	☐ Acoustic Tile (Dropped)		
☐ Pipe Wrap	☐ Textured Wall	☐ Acoustic Tile (Glued-on)		
HVAC	☐ Plaster	☐ Mastic	Miscellaneous:	
☐ Insulation	X DWJC	Structural		
☐ Tape		☐ Steel F. P. ing	No. of Phases:	
☐ Paper Wrap		□ Deck F. P. ing	Colour:	





OMIAFICAL					
Sample #:	S014		Date Sampled:	March 19, 2013	
Building:	Computing Service	es	Sampler:	Trent Hardy	
Location:	022, room 1011		Analysis:	SAI - PLM	
MUN Project #:	02-02-900		Work Order#:		
		Bulk	Sampling Parameters		
Pipe/Tank	Flooring		Ceiling	Roofing	Location
☐ Insulation	□12'x12' Tile	$\Box$ T	extured	☐ Shingle	□ Floor
☐ Elbow	□ 9'x9'Tile	☐ Stucco		□ Rolled	X Wall Orientation
☐ Fitting	□ Vinyl Sheet	□ Popcom		□ Felt	☐ Ceiling
☐ Transite Pipe	☐ Mastic		WJC	□ Tar	☐ Above Ceiling
☐ Gasket	Wall	$\square$ P	laster		☐ Other
☐ Tank Insulation	☐ Transite Panel	$\Box$ A	coustic Tile (Dropped)		
□ Pipe Wrap	□ Textured Wall	$\Box$ A	coustic Tile (Glued-on)		
HVAC	☐ Plaster	$\square$ M	lastic	Miscellaneous:	
☐ Insulation	X DWJC		Structural		
☐ Tape			teel F. P. ing	No. of Phases:	
☐ Paper Wrap			eck F. P. ing	Colour:	

