



ASBESTOS AND LEAD PAINT BUILDING MATERIALS SURVEY FOR: RESEARCH LAB – 297 MOUNT SCIO ROAD MEMORIAL UNIVERSITY OF NEWFOUNDLAND



Prepared for:

Memorial University of Newfoundland

St. John's, NL

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

March 20, 2013

EXECUTIVE SUMMARY

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: RESEARCH LAB

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

A summary of the findings for the Research Lab 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 building materials were identified in the Site Building, specifically parging cement.
- Non-friable asbestos-containing building materials with the potential to become friable during construction or renovation activities were identified in the Site Building, specifically drywall joint compound.
- 3. Non-friable asbestos-containing building materials were identified in the Site Building, specifically transite, vinyl floor tiles, and incandescent heat shields.
- 4. No paints with lead concentrations exceeding 600mg/kg were identified in the Site Building.

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.

TABLE OF CONTENTS

1.0	INTRODUCTIO	ON	1						
2.0	SURVEY INFORMATION								
3.0	ACM SURVEY	FINDINGS	2						
3.1	Sprayed or T	TROWELLED FIREPROOFING AND THERMAL INSULATION	2						
3.2		Insulation							
3.3		LING TILES							
3.4	Drywall, Pl	ASTER, AND TEXTURE FINISHES	3						
3.5	VINYL FLOORI	NG MATERIALS	3						
		· Tiles							
		Flooring							
3.6		MENT PRODUCTS							
3.7		Insulation							
3.8		TOS CONTAINING BUILDING MATERIALS							
4.0	LBP SURVEY I	FINDINGS	4						
5.0	RECOMMEND	ATIONS	5						
APPE	NDIX I	ASBESTOS ANALYTICAL REPORT							
APPE	NDIX II	LEAD PAINT ANALYTICAL REPORT							
APPE	NDIX III	SITE DRAWINGS							
APPE	NDIX IV	PHOTO SAMPLE LOG							

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: RESEARCH LAB

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 friable¹ and non-friable² 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

¹ 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.

² 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 January 16th, 2013. The survey, collection of representative bulk samples, and recording of information was performed by Mr. Trent Hardy and Mrs. Angela Stagg 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 sixteen (16) representative bulk samples were collected for analysis for asbestos content and five (5) 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 and thermal insulation were observed in the Site Building.

3.2 Mechanical Insulation

Insulating cement, also referred to as "parging cement", present on pipe elbows and straight sections, was sampled in room MS-1C01 and contains 30% Chrysotile asbestos (reference sample 02-02-900-S001). For locations and conditions of this material at the time of the building survey refer to location & data excel document.

3.3 Acoustic Ceiling Tiles

Two (2) were collected of acoustic ceiling tiles were observed in the Site Building. Analysis of both of the samples did not identify the presence of asbestos. A summary of the acoustic ceiling tiles samples collected is observed as follows:

- The 2'x 4' acoustic ceiling tile distinguished with a pinhole and fleck pattern located in room MS-1C04 (reference sample 02-02-900-S010); and,
- The 2'x 4' acoustic ceiling tile distinguished with longitudinal fissure and pinhole pattern located in room MS-1107 (reference sample 02-02-900-S014).

3.4 Drywall, Plaster, and Texture Finishes

Drywall was used as a wall and ceiling finish throughout the Site 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.

Six (6) samples, in total, of drywall joint compound were collected in the Site Building. Results from three (3) of the six (6) samples collected contain 3% chrysotile asbestos (reference samples, 02-02-900-S034, and 02-02-900-S003, S015, S016, S007, S011, and S013).

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

3.5.1 Vinyl Floor Tiles

Three (3) types of vinyl floor tiles were observed in the Site Building. Results from one (1) of the three (3) samples collected contain to contain asbestos. A list of the three (3) visually different vinyl floor tiles is provided below:

3.5.1.1 Asbestos Containing Vinyl Floor Tiles

• One (1) sample was collected of the 12"x12" vinyl floor tile identified as white with black streaks from room MS-1018 and contains 5% chrysotile asbestos (reference sample 02-02-900-S002). For locations and conditions of this material at the time of the building survey refer to location & data excel document.

3.5.1.2 Non-Asbestos Containing Vinyl Floor Tiles

• One (1) sample was collected of the 12"x12" vinyl floor tile identified as white with large grey streaks from room MS-1018A. Analysis of this sample did not identify the presence of asbestos (reference sample 02-02-900-S004).

 One (1) sample was collected of the 12"x12" vinyl floor tile identified as white with grey flecks from MS-1V03. Analysis of this sample did not identify the presence of asbestos (Reference sample 02-02-900-S006).

3.5.2 Vinyl Sheet Flooring

One (1) sample of vinyl sheet flooring identified as white with grey streaks was collected from room MS-1110. Analysis of this sample did not identify the presence of asbestos (reference sample 020-02-900-S012).

3.6 Asbestos Cement Products

One (1) sample was of transite paneling inside of a fume hood collected from room MS-1018A and contains 20% chrysotile asbestos (reference sample 02-02-900-S005). For locations and conditions of this material at the time of the Site Building survey refer to location & data excel document.

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 Building Materials

One (1) sample was collected of a heat shield present in an incandescent light fixture from room MS-1V03 and contains 60% chrysotile asbestos (reference sample 02-02-900-S008). For locations and conditions of this material at the time of the Site Building survey refer to location & data excel document.

One (1) sample of tar and pitch DEBRIS resting in the ceiling space was collected from room MS-1C04. Analysis of this sample did not identify the presence of asbestos (reference sample 02-02-900-S009).

4.0 LBP SURVEY FINDINGS

Analytical results indicate that none 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%).

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 1ft² 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 1ft² of material;

Potentially Friable Materials

Non-friable asbestos containing materials with the potential to become friable during demolition or renovation activities identified inside the Site Building include: drywall joint compound.

- 1. Any DEBRIS created by drywall in POOR condition should be managed as a friable material, and be addressed following recommendations outlined above.
- 2. Under the NL guidance documents for moderate and low risk asbestos abatement procedures, quantities of drywall within an enclosure exceeding 100 ft² should be removed using Type III (high risk) asbestos abatement procedures. Quantities less than 100 ft² but exceeding 10ft² should be removed using Type II (moderate risk) asbestos abatement procedures, while quantities less than 10 ft² 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: transite, vinyl floor tiles, and 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.

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



1/21/2013

Customer: Pinchin LeBlanc Environmental

27 Austin St

2nd Flr

St Johns, NL A1B 4C3

Project: MUN Asbestos and Lead Survey 297

Mt. Scio Research

Lab Order ID: 1300843 Attn: Dawn Benteau Paul Staeben

1300843PLM Analysis ID:

Date Reported: 1/22/2013

Date Received:

Sample ID	Description	Asbestos	Fibrous	Non-Fibrous	Attributes
Lab Sample ID	Lab Notes	Aspestos	Components	Components	Treatment
02-02-900- S001	Parging Cement	30% Chrysotile		70% Other	Gray Fibrous Heterogeneous
1300843PLM_1					Teased
02-02-900- \$002	12"x12" VFT - White with black streaks	5% Chrysotile		95% Other	White Non Fibrous Homogeneous
1300843PLM_2	tile only				Dissolved
02-02-900- S003	DWJC	3% Chrysotile		97% Other	White Non Fibrous Homogeneous
1300843PLM_3					Crushed
02-02-900- S004 - A	12"x12" VFT - White with large grey streaks	None Detected	·	100% Other	White Non Fibrous Homogeneous
1300843PLM_4	tile				Dissolved
02-02-900- S004 - B	12"x12" VFT - White with large grey streaks	None Detected		100% Other	Black Non Fibrous Homogeneous
1300843PLM_17	mastic				Dissolved
02-02-900- S005	Transite	20% Chrysotile		80% Other	Gray Fibrous Heterogeneous
1300843PLM_5					Teased
02-02-900- S006 - A	12"x12" VFT - white with grey flecks	None Detected		100% Other	White Non Fibrous Homogeneous
1300843PLM_6	tile	1 1			Dissolved
02-02-900- S006 - B	12"x12" VFT - white with grey flecks	None Detected		100% Other	Yellow Non Fibrous Homogeneous
1300843PLM_18	mastic]			Dissolved

Discialmer: Due to the nature of the EPA 600 method, subestor may not be detected in samples containing low levels of asbestor. 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 agenc

Bobby Wheatley (19)

Nathaniel Durham, MS or Approved Signatory

Scientific Analytical Institute, Inc. 4604 Dundas Dr. Greensboro, NC 27407 (336) 292-3888



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: MUN Asbestos and Lead Survey 297

Attn: Dawn Benteau Paul Staeben Lab Order ID: 1300843

Analysis ID:

1300843PLM

Date Received:

1/21/2013

Date Reported:

1/22/2013

Sample ID	Description	Asbestos	Fibrous	Non-Fibrous	Attributes
Lab Sample ID Lab Notes		Aspestos	Components	Components	Treatment
02-02-900- S007	DWJC	None Detected		100% Other	White Non Fibrous Homogeneous
1300843PLM_7					Crushed
02-02-900- S008	Incandescent Heat Sheild	60% Chrysotile		40% Other	White Fibrous Heterogeneous
1300843PLM_8					Teased
02-02-900- S009	Tar pitch debris	None Detected		100% Other	Black Non Fibrous Homogeneous
1300843PLM_9			,		Dissolved
02-02-900- \$010	2"X4" ACT - Pinhole and fleck	None Detected	60% Cellulose 20% Fiber Glass	20% Other	Gray Fibrous Heterogeneous
1300843PLM_10					Teased
02-02-900- S011	DWJC	None Detected		100% Other	White Non Fibrous Homogeneous
1300843PLM_11	1				Crushed
02-02-900- S012 - A	VSF - White with grey streak	None Detected		100% Other	White Non Fibrous Homogeneous
1300843PLM_12	vinyl sheet flooring				Dissolved
02-02-900- S012 - B	VSF - White with grey streak	None Detected		100% Other	Yellow Non Fibrous Homogeneous
1300843PLM_19	mastic				Dissolved
02-02-900- S013	DWJC	None Detected		100% Other	White Non Fibrous Homogeneous
300843PLM_13					Dissolved

Discialmer: 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 illes, vermicultie, and/or beterogeneous 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 agenc

Bobby Wheatley (19)

Nathaniel Durham, MS or Approved Signatory

Annys

Scientific Analytical Institute, Inc. 4604 Dundas Dr. Greensboro, NC 27407 (336) 292-3888

2-3888



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

Attn: Dawn Benteau Paul Staeben Lab Order ID:

1300843

Analysis ID:

1300843PLM

Date Received:

1/21/2013

Date Reported:

1/22/2013

Project: MUN Asbestos and Lead Survey 297

Mt. Scio Research

Sample ID Lab Sample ID	Description Lab Notes	Asbestos	Fibrous Components	Non-Fibrous Components	Attributes Treatment
02-02-900- S014	2"x4" ACT - longitudinal fissure and pinhole	None Detected	60% Fiber Glass 20% Cellulose	20% Other	Gray Fibrous Heterogeneous Teased
02-02-900- S015	DWJC	3% Chrysotile		97% Other	White Non Fibrous Homogeneous
1300843PLM_15 02-02-900- S016	DWJC	3% Chrysotile		97% Other	Tan Non Fibrous Homogeneous Crushed

Discipliner: 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 illes, vermiculite, and/or beterogeneous 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 agenc

Bobby Wheatley (19)

Nathaniel Durham, MS or Approved Signatory

Analyst

APPENDIX II

LEAD PAINT ANALYTICAL REPORT



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: 1300845

Analysis ID:

1300845_PBP

Date Received:

1/21/2013

Date Reported:

1/23/2013

Project: 02-02-00900 MUN Asbestos and Lead Survey - Mt Scio Road Research

Sample ID Lab Sample ID	Description Lab Notes	Mass (g)	Analytical Sensitivity (% by weight)	Concentration (% by weight)
02-02-900-L001 1300845PBP_1	White paint	0.0593	0.002%	0.041%
02-02-900-L002 1300845PBP_2	White paint	0.0503	0.003%	< 0.008%
02-02-900-L003 1300845PBP_3	Blue paint	0.0568	0.002%	< 0.007%
02-02-900-L004 1300845PBP_4	Grey paint	0.0625	0.002%	0.010%
02-02-900-L005 1300845PBP_5	White paint	0.0719	0.002%	< 0.006%

The quality control samples run with the samples in this report have passed all AIHA 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 AIHA or any other agency of the U.S. government.

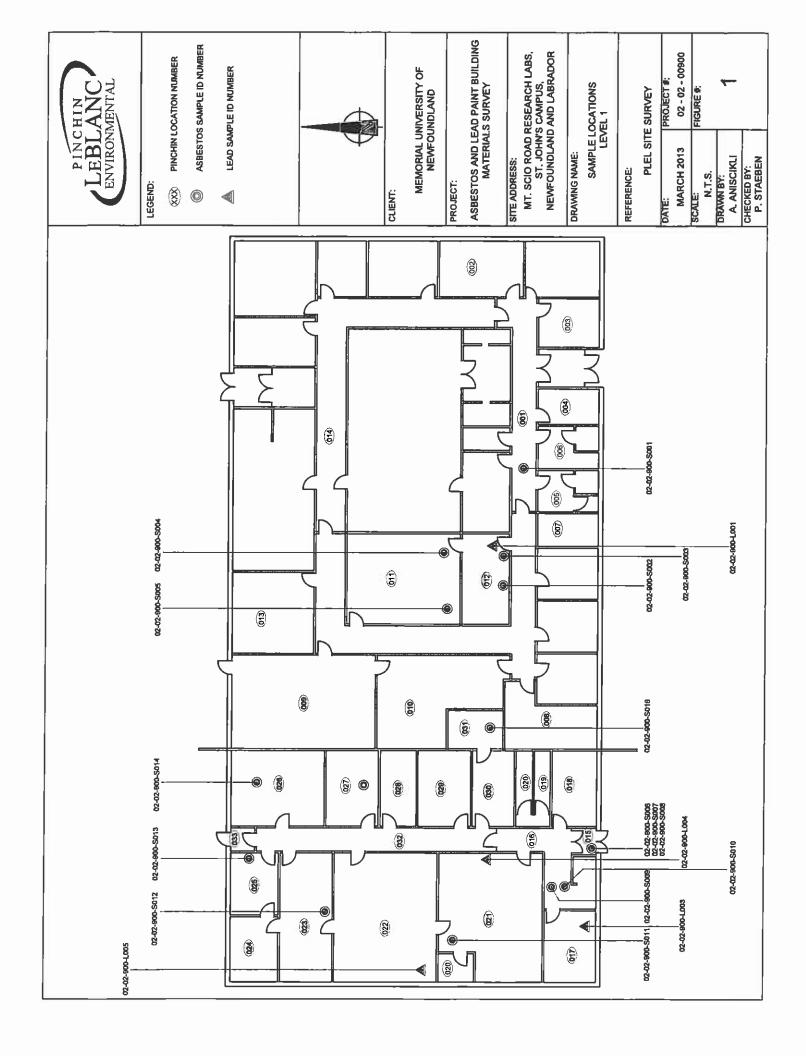
Robert Duke (5)

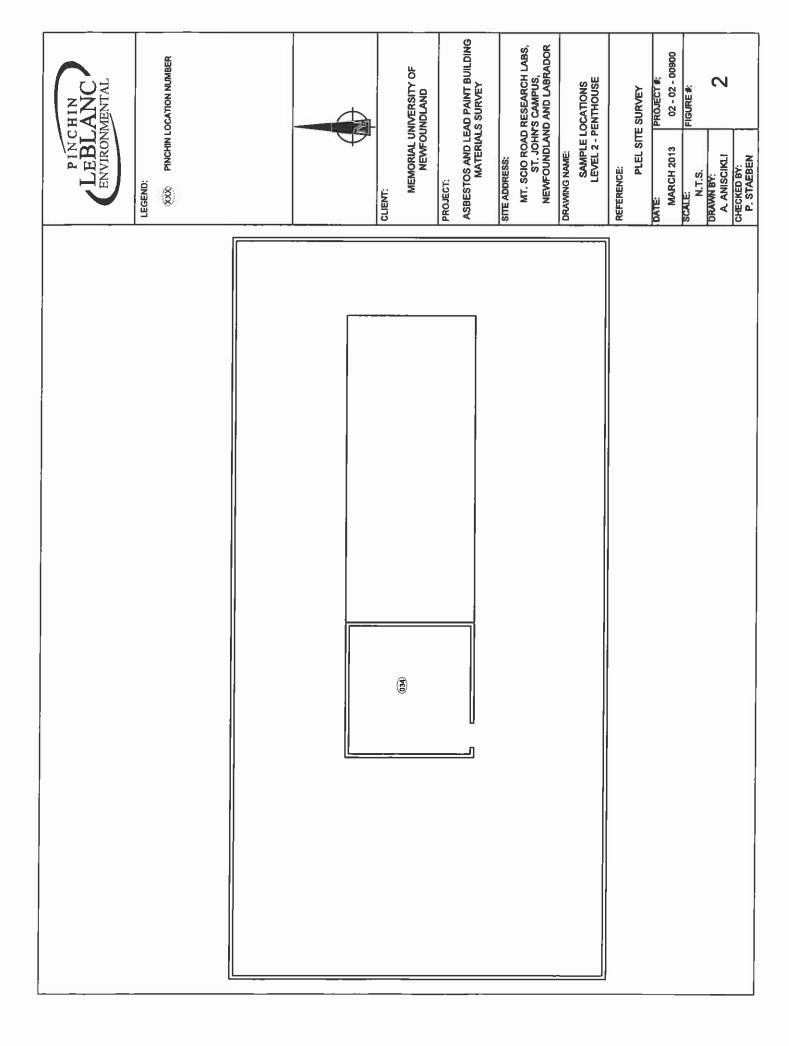
Laboratory Director

Scientific Analytical Institute, Inc. 4604 Dundas Dr. Greensboro, NC 27407 (336) 292-3888

APPENDIX III

SITE DRAWINGS



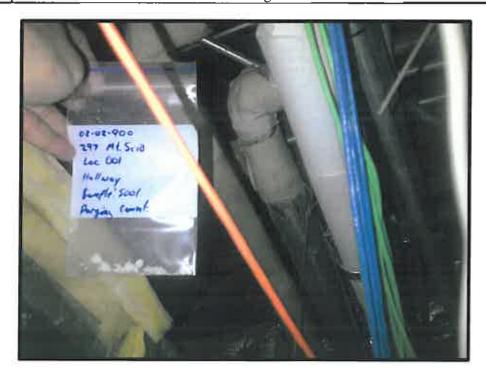


APPENDIX IV

SAMPLE LOG



OMIAEK2II	I all				
Sample #:	S001		Date Sampled:	January 16, 2013	
Building:	Mount Scio Resear	ch	Sampler:	Trent Hardy	
_	Lab		·		
Location:	001, room MS 1C0	1	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
X Elbow	□ 9'x9'Tile	☐ Stucco		☐ Rolled	☐ Wall Orientation
☐ Fitting	□ Vinyl Sheet	\square P	'opcom	☐ Felt	☐ Ceiling
☐ Transite Pipe	☐ Mastic		DWJC	🗖 Таг	☐ Above Ceiling
☐ Gasket	Wall	□ P	laster		☐ Other
☐ Tank Insulation	☐ Transite Panel	$\square A$	Acoustic Tile (Dropped)		
☐ Pipe Wrap	□ Textured Wall	$\Box A$	Acoustic Tile (Glued-on)		
HVAC	☐ Plaster	\square N	/lastic	Miscellaneous:	: Parging
☐ Insulation	□ DWJC		Structural		
□ Tape		\square S	teel F. P. ing	No. of Phases:	
☐ Paper Wrap			Deck F. P. ing	Colour:	



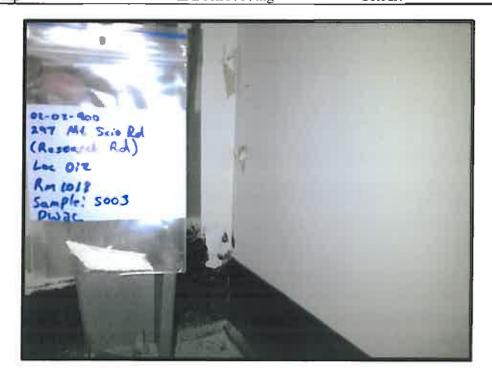


ONIVERSIT						
Sample #:	S002		Date Sampled:	January 16, 2013		
Building:	Mount Scio Research	ch	Sampler:	Trent Hardy		
_	Lab					
Location:	012, room 1018		Analysis:	SAI - PLM		
MUN Project #:	02-02-900		Work Order #:			
		Bulk	Sampling Parameters			
Pipe/Tank	Flooring	Ceiling		Roofing	Location	
☐ Insulation	X12'x12' Tile	☐ Textured		☐ Shingle	X Floor	
□ Elbow	□ 9'x9'Tile		stucco	□ Rolled	☐ Wall Orientation	
☐ Fitting	☐ Vinyl Sheet	\square P	opcom	☐ Felt	☐ Ceiling	
☐ Transite Pipe	☐ Mastic	ΔĽ)WJC	☐ Tar	☐ Above Ceiling	
☐ Gasket	Wall	\Box P	laster		☐ Other	
☐ Tank Insulation	☐ Transite Panel	$\square A$	Acoustic Tile (Dropped)			
□ Pipe Wrap	☐ Textured Wall	$\square A$	Acoustic Tile (Glued-on)			
HVAC	☐ Plaster	\square N	/lastic	Miscellaneous:	,	
☐ Insulation	□ DWJC		Structural			
□ Tape		\square S	teel F. P. ing	No. of Phases:		
☐ Paper Wrap			Deck F. P. ing	Colour: White	with black streaks	





OMIAFICAL	1				
Sample #:	S003		Date Sampled:	January 16, 2013	
Building:	Mount Scio Resear	ch	Sampler:	Trent Hardy	
_	Lab				
Location:	012, room 1018		Analysis:	SAI - PLM	
MUN Project #:	02-02-900		Work Order #:		
		Bulk	Sampling Parameters		
Pipe/Tank	Flooring	Ceiling		Roofing	Location
☐ Insulation	□12'x12' Tile	☐ Textured		☐ Shingle	☐ Floor
☐ Elbow	□ 9'x9'Tile		tucco	□ Rolled	X Wall Orientation
☐ Fitting	☐ Vinyl Sheet	$\square P$	орсот	☐ 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	$\square N$	fastic	Miscellaneous:	
☐ Insulation	X DWJC		Structural		
□ Tape			teel F. P. ing	No. of Phases:	
☐ Paper Wrap		\Box D	eck F. P. ing	Colour:	





ONIVERSII	Y				
Sample #:	S004		Date Sampled: January 16, 2013		3
Building:	Mount Scio Resear	ch	Sampler:	Trent Hardy	-
	Lab		_		
Location:	013, room 1010		Analysis:	SAI - PLM	
MUN Project #:	02-02-900		Work Order #:		
		Bulk	Sampling Parameters	-	
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)WJC	☐ Tar	☐ Above Ceiling
☐ Gasket	Wall	\Box P	laster		☐ Other
☐ Tank Insulation	☐ Transite Panel		coustic Tile (Dropped)		
☐ Pipe Wrap	□ Textured Wall	\Box A	coustic Tile (Glued-on)		
HVAC	☐ Plaster	\square M	fastic	Miscellaneous:	
☐ Insulation	□ DWJC		Structural		
☐ Tape		\square S	teel F. P. ing	No. of Phases:	
			Deck F. P. ing Colour: White with large streaks		with large grey



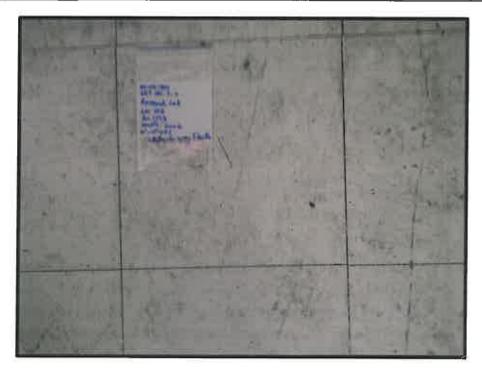


WITT WITTE					
Sample #:	S005		Date Sampled:	January 16, 2013	
Building:	Mount Scio Resear	ch	Sampler:	Trent Hardy	
	Lab				
Location:	013, room 1010		Analysis:	SAI - PLM	
MUN Project #:	02-02-900		Work Order#:		
		Bulk	Sampling Parameters		
Pipe/Tank	Flooring	Ceiling		Roofing	Location
☐ Insulation	□12'x12' Tile	☐ Textured		☐ Shingle	☐ Floor
☐ Elbow	☐ 9'x9'Tile	☐ Stucco		□ Rolled	X Wall Orientation
☐ Fitting	□ Vinyl Sheet	\square P	opcom	☐ Felt	☐ Ceiling
☐ Transite Pipe	□ Mastic		DWJC	☐ Tar	☐ Above Ceiling
☐ Gasket	Wall	\Box P	laster		☐ Other
☐ Tank Insulation	X Transite Panel	□ ♠	Acoustic Tile (Dropped)		
☐ Pipe Wrap	□ Textured Wall		Acoustic Tile (Glued-on)		
HVAC	☐ Plaster	☐ Mastic		Miscellaneous:	
☐ Insulation	□ DWJC		Structural		
□ Tape		\square S	teel F. P. ing	No. of Phases:	
☐ Paper Wrap			Deck F. P. ing	Colour:	



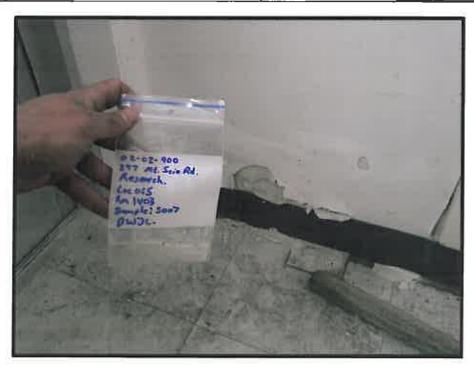


OMIAEKOLI					
Sample #:	S006		Date Sampled:	January 16, 201	3
Building:	Mount Scio Researc	ch	Sampler:	Trent Hardy	
	Lab				
Location:	015, room 1V03		Analysis:	SAI - PLM	
MUN Project #:	02-02-900		Work Order #:		
		Bulk	Sampling Parameters		
Pipe/Tank	Flooring	Ceiling		Roofing	Location
☐ Insulation	X12'x12' Tile	☐ Textured		☐ Shingle	X Floor
☐ Elbow	□ 9'x9'Tile	\square S	tucco	☐ Rolled	☐ Wall Orientation
☐ Fitting	□ Vinyl Sheet	\Box P	opcom	☐ Felt	☐ Ceiling
☐ Transite Pipe	☐ Mastic)WJC	□ Tar	☐ Above Ceiling
☐ Gasket	Wall	□P	laster		☐ Other
☐ Tank Insulation	☐ Transite Panel	$\Box A$	Acoustic Tile (Dropped)		
☐ Pipe Wrap	□ Textured Wall	$\Box A$	coustic Tile (Glued-on)		
HVAC	☐ Plaster	\square N	/lastic	Miscellaneous:	
☐ Insulation	□ DWJC		Structural		
☐ Tape		\square S	teel F. P. ing	No. of Phases:	
☐ Paper Wrap		\Box D	eck F. P. ing	Colour: White with grey flecks	



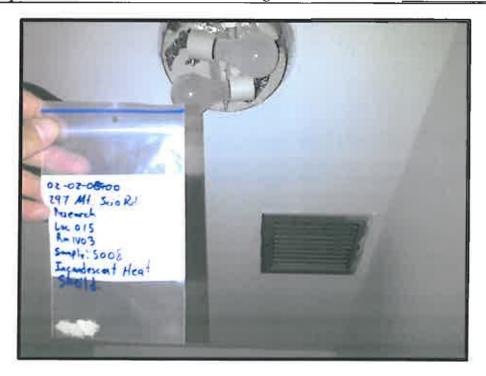


01414 EK311	<u> </u>				
Sample #:	S007		Date Sampled:	January 16, 201	3
Building:	Mount Scio Resear	ch	Sampler:	Trent Hardy	
	Lab			,	
Location:	015, room 1V03		Analysis:	SAI - PLM	
MUN Project#:	02-02-900		Work Order #:		
		Bulk	Sampling Parameters		
Pipe/Tank	Flooring		Ceiling	Roofing	Location
☐ Insulation	□12'x12' Tile	☐ Textured		☐ Shingle	☐ Floor
☐ Elbow	□ 9'x9'Tile		tucco	☐ Rolled	X Wall Orientation
☐ Fitting	□ Vinyl Sheet	\square P	opcorn	☐ Felt	☐ Ceiling
☐ Transite Pipe	□ Mastic		OWJC	□ 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 N	lastic	Miscellaneous:	
☐ Insulation	X DWJC		Structural		
☐ Tape		\square S	teel F. P. ing	No. of Phases:	
☐ Paper Wrap			eck F. P. ing	Colour:	



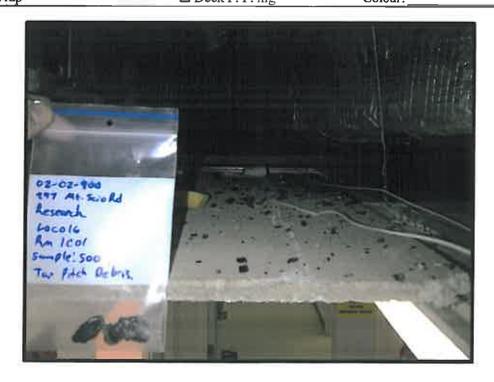


OTTIVERSTI					
Sample #:	S008		Date Sampled:	January 16, 201	3
Building:	Mount Scio Research		Sampler:	Trent Hardy	
	Lab		•		
Location:	015, room 1V03		Analysis:	SAI - PLM	
MUN Project #:	02-02-900		Work Order#:		
		Bulk	Sampling Parameters	-	
Pipe/Tank	Flooring		Ceiling	Roofing	Location
☐ Insulation	□12'x12' Tile	☐ Textured		☐ Shingle	☐ Floor
☐ Elbow	☐ 9'x9'Tile	☐ Stucco		□ Rolled	☐ Wall Orientation
☐ Fitting	□ Vinyl Sheet	☐ Popcorn		☐ Felt	☐ Ceiling
☐ Transite Pipe	☐ Mastic	□ DWJC		☐ Tar	☐ Above Ceiling
☐ Gasket	Wall	□ P1	aster		X Other (light)
☐ Tank Insulation	☐ Transite Panel		coustic Tile (Dropped)		
□ Pipe Wrap	☐ Textured Wall	\Box A	coustic Tile (Glued-on)		
HVAC	☐ Plaster	☐ Mastic		Miscellaneous: shield	Incandescent heat
☐ Insulation	□ DWJC		Structural		
☐ Tape		☐ St	eel F. P. ing	No. of Phases:	
☐ Paper Wrap			eck F. P. ing	Colour:	



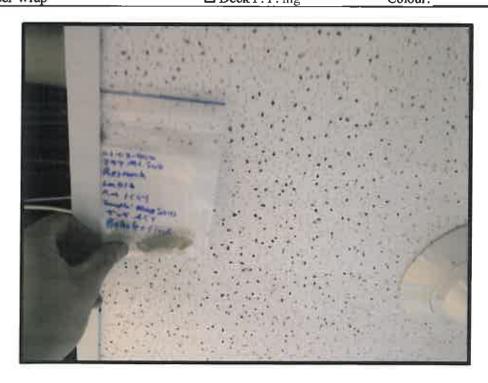


ONIVERSII	Y				
Sample #:	S009		Date Sampled:	January 16, 201	3
Building:	Mount Scio Resear	ch	Sampler:	Trent Hardy	-
_	Lab				
Location:	016, room 1C01		Analysis:	SAI - PLM	
MUN Project #:	02-02-900		Work Order#:		
		Bulk	Sampling Parameters		
Pipe/Tank	Flooring		Ceiling	Roofing	Location
☐ Insulation	□12'x12' Tile	☐ Textured		☐ Shingle	☐ Floor
☐ Elbow	□ 9'x9'Tile	☐ Stucco		☐ Rolled	☐ Wall Orientation
☐ Fitting	□ Vinyl Sheet	□ Popcom		☐ Felt	☐ Ceiling
☐ Transite Pipe	☐ Mastic		WJC	☐ Tar	☐ Above Ceiling
☐ Gasket	Wall	□P	laster		☐ Other
☐ Tank Insulation	☐ Transite Panel	$\square A$	coustic Tile (Dropped)		
☐ Pipe Wrap	□ Textured Wall	\square A	coustic Tile (Glued-on)		
HVAC	☐ Plaster	☐ Mastic		Miscellaneous: ceiling	Tar debris above
☐ Insulation	□ DWJC		Structural	<u>coming</u>	
☐ Tape		□s	teel F. P. ing	No. of Phases:	
□ Paper Wran			eck F P ing	Colour	



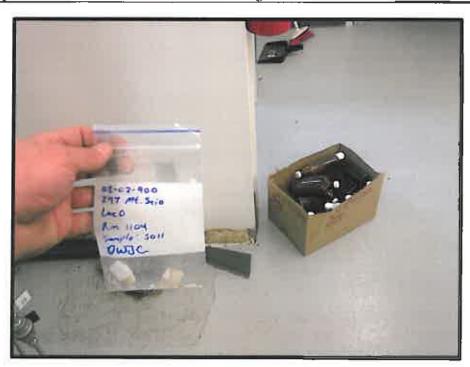


Sample #:	S010		Date Sampled:	January 16, 201	3
Building:	Mount Scio Resear	ch	Sampler:	Trent Hardy	
	Lab			-	
Location:	016, room 1C04		Analysis:	SAI - PLM	
MUN Project #:	02-02-900		Work Order #:	_	
		Bulk	Sampling Parameters		
Pipe/Tank	Flooring		Ceiling	Roofing	Location
☐ Insulation	□12'x12' Tile	☐ 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	\Box P	laster		☐ Other
☐ Tank Insulation	☐ Transite Panel	ΧA	coustic Tile (Dropped)		
☐ Pipe Wrap	☐ Textured Wall		Acoustic Tile (Glued-on)		
HVAC	☐ Plaster	☐ Mastic		Miscellaneous: 2' x 4' pinhole fleck	
☐ Insulation	□ DWJC		Structural		
☐ Tape		\square S	teel F. P. ing	No. of Phases:	
Paper Wran			leck F P ing	Colour	





O I TI T IS IN O I I					
Sample #:	S011		Date Sampled:	January 16, 201	3
Building:	Mount Scio Resear	ch	Sampler:	Trent Hardy	
	Lab				
Location:	021, room 1104		Analysis:	SAI - PLM	
MUN Project #:	02-02-900		Work Order #:		
		Bulk	Sampling Parameters		
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	☐ 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	□ Mastic		Miscellaneous:	
☐ Insulation	X DWJC		Structural		
☐ Tape		\square S	teel F. P. ing	No. of Phases:	
☐ Paper Wrap			eck F. P. ing	Colour:	





UNIVERSIT	Y						
Sample #:	S012		Date Sampled:	January 16, 201	January 16, 2013		
Building:	Mount Scio Resear	rch	Sampler:	Trent Hardy	-		
	Lab						
Location:	023, room 1110		Analysis:	SAI - PLM			
MUN Project #:	02-02-900		Work Order #:				
		Bulk	Sampling Parameters				
Pipe/Tank	Flooring		Ceiling	Roofing	Location		
☐ Insulation	□12'x12' Tile	☐ Textured		☐ Shingle	X Floor		
☐ Elbow	□ 9'x9'Tile	☐ Stucco		□ Rolled	☐ Wall Orientation		
☐ Fitting	X Vinyl Sheet	☐ Popcorn		□ Felt	☐ Ceiling		
☐ Transite Pipe	☐ Mastic		WJC	□ Tar	☐ Above Ceiling		
☐ Gasket	Wall	\square P	laster		□ Other		
☐ Tank Insulation	☐ Transite Panel	□A	coustic Tile (Dropped)				
☐ Pipe Wrap	□ Textured Wall		coustic Tile (Glued-on)				
HVAC	☐ Plaster	☐ Mastic		Miscellaneous:			
☐ Insulation	□ DWJC		Structural				
☐ Tape			teel F. P. ing	No. of Phases:			
☐ Paper Wrap			eck F. P. ing	Colour: White	with grey streak		

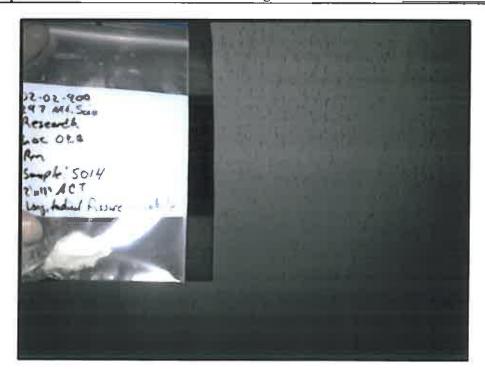


OMIAEKSII					
Sample #:	S013		Date Sampled:	January 16, 201	.3
Building:	Mount Scio Resear	ch	Sampler:	Trent Hardy	
	Lab				
Location:	025, room 1112A		Analysis:	SAI - PLM	
MUN Project #:	02-02-900		Work Order#:		
		Bulk	Sampling Parameters		
Pipe/Tank	Flooring		Ceiling	Roofing	Location
☐ Insulation	□12'x12' Tile	☐ Textured		☐ Shingle	☐ Floor
□ Elbow	□ 9'x9'Tile	☐ Stucco		□ Rolled	X Wall Orientation
☐ Fitting	□ Vinyl Sheet	\Box P	opcom	☐ Felt	☐ Ceiling
☐ Transite Pipe	☐ Mastic		OWJC	□ Tar	☐ Above Ceiling
☐ Gasket	Wall	□P	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		\square S	iteel F. P. ing	No. of Phases:	
☐ Paper Wrap			Deck F. P. ing	Colour:	





OMINEKSII						
Sample #:	S014		Date Sampled:	January 16, 201	3	
Building:	Mount Scio Research		Sampler:	Trent Hardy		
	Lab					
Location:	026, room 1111		Analysis:	SAI - PLM		
MUN Project #:	02-02-900		Work Order#:			
		Bulk	Sampling Parameters			
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	\square P	laster		☐ Other	
☐ Tank Insulation	□ Transite Panel	ΧA	coustic Tile (Dropped)			
☐ Pipe Wrap	☐ Textured Wall	$\square A$	coustic Tile (Glued-on)			
HVAC	☐ Plaster	☐ Magtia		Miscellaneous: 2' x 4' longitudinal		
HVAC	L idstei	☐ Mastic		fissure and pinh	<u>iole</u>	
☐ Insulation	□ DWJC		Structural			
☐ Tape		\square S	teel F. P. ing	No. of Phases:		
☐ Paper Wrap		Deck F. P. ing		Colour:		





ONTVERSITI							
Sample #:	S015		Date Sampled:	January 16, 201	3		
Building:	Mount Scio Research	ch	Sampler:	Trent Hardy			
	Lab						
Location:	027, room 1108		Analysis:	SAI - PLM			
MUN Project #:	02-02-900		Work Order #:				
		Bulk	Sampling Parameters				
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	☐ Popcom		☐ Felt	☐ Ceiling		
☐ Transite Pipe	☐ Mastic	DD)WJC	□ Tar	☐ 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	X DWJC		Structural				
☐ Tape			teel F. P. ing	No. of Phases:			
☐ Paper Wrap		\Box D	eck F. P. ing	Colour:			





ONIVERSITI							
Sample #:	S016		Date Sampled:	January 16, 201	3		
Building:	Mount Scio Resear	ch !	Sampler:	Trent Hardy			
	Lab			,			
Location:	031, room 1105A		Analysis:	SAI - PLM			
MUN Project #:	02-02-900	7	Work Order#:				
		Bulk S	ampling Parameters				
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	□ Pop	ocom	☐ Felt	☐ Ceiling		
☐ Transite Pipe	□ Mastic	□ DŴJC		□ Tar	☐ Above Ceiling		
☐ Gasket	Wall	☐ Pla:	ster		☐ Other		
☐ Tank Insulation	☐ Transite Panel	☐ Acc	oustic Tile (Dropped)				
☐ Pipe Wrap	☐ Textured Wall	☐ Acc	oustic Tile (Glued-on)				
HVAC	☐ Plaster	☐ Mastic		Miscellaneous:			
☐ Insulation	X DWJC		Structural		,		
☐ Tape		☐ Ste	el F. P. ing	No. of Phases:			
☐ Paper Wrap		□ Dec	ck F. P. ing	Colour:	-		

