



A Service Disabled Veteran
Owned Small Business

TTI Environmental Incorporated
1253 North Church Street
Moorestown, New Jersey 08057
Tel: 856-840-8800
Fax: 856-840-8815

November 3, 2011

Mr. John R. Urini
Director of Capital Planning, Design and Construction
William Paterson University
300 Pompton Road
Wayne, New Jersey

Reference: Bulk Sample Results
William Paterson University
Boiler House - Roof
300 Pompton Road
Wayne, New Jersey
TTI Project No. 11-431

Dear Mr. Urini:

This test report covers the analysis of suspect asbestos-containing roofing materials collected by Mr. James A. Guilardi, accredited AHERA building inspector for TTI Environmental, Inc. (TTI) on October 26, 2011 at the Boiler House on the campus of William Paterson University in Wayne, New Jersey.

A total of 15 samples were collected from the roof of the above referenced building. Polarized Light Microscopy (PLM) and as required Transmission Electron Microscopy (TEM) analysis of the suspect asbestos-containing materials revealed that the materials listed in Table 1.0 below contain greater than one (1) percent (%) asbestos. Please note that in accordance with New Jersey Department of Health and Labor regulations, additional TEM analysis is required to be performed on Non-friable Organically Bound (NOB) materials (i.e. all roofing, floor tile and mastics) found to contain less than one percent (1%) asbestos by Polarized Light Microscopy (PLM). This additional analysis must occur prior to any renovation or demolition activity.

Table 1.0: Asbestos Containing Roofing Material Summary		
Material/Building System	Location	Estimated Amount of Material
Roof flashing	Boiler House and attached adjacent buildings	450 lf



William Paterson University
Boiler House Roof
TTI Project No. 11-431
Page 2 of 2

The suspect asbestos-containing materials listed in Table 2.0 below were sampled and found to contain less than one percent (1%) asbestos.

Table 2.0: Non-Asbestos Containing Roofing Material Summary
Material/Building System
Roofing material – 1 st Layer
Roofing material – 2 nd Layer
Roofing material – 3 rd Layer
Roofing material – 4 th Layer

The results, assessments and conclusions stated in this report are factually representative of the conditions and circumstances we observed on the date of our inspection. We cannot assume responsibility for any change in conditions or circumstances that occurred subsequent to our inspection.

The following attachments are provided for your review:

- Certificates of Analysis
- Sampling Data and Chain of Custody Records

If you should have any questions or require additional information, please feel free to contact me directly.

Sincerely,

TTI ENVIRONMENTAL, INC.

James A. Guilardi
Project Manager

**EMSL Analytical, Inc.**

200 Route 130 North Cinnaminson, NJ 08077

Phone: (800) 220-3675 Fax: (856) 786-5974 Web: <http://www.emsl.com> Email: cinnaslab@EMSL.com

Attn: Jim Guilardi
TTI Environmental Inc.
1253 North Church Street
Moorestown, NJ 08057

EMSL Order: 041128571
Customer ID: TTIE54
Collected: 10/26/2011 12:00:00AM
Received: 10/26/2011

Fax: (856) 840-8815 Phone: (856) 840-8800

Proj: 11-431 WILLIAM PATERSON UNIVERSITY BOILER HOUSE

**Summary Test Report for Asbestos Analysis in Accordance with N.J.A.C. 8:60
and 12:120 via EPA 600/R-93/116**

Client Sample ID: 01-01

Lab Sample ID: 041128571-0001

Sample Description: BOILER HOUSE ROOF/ROOFING MATERIAL - 1ST LAYER

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	10/27/2011	Black	20%	80%	None Detected	
TEM Grav. Reduction	10/28/2011	Black	0.0%	100%	None Detected	

Client Sample ID: 01-02

Lab Sample ID: 041128571-0002

Sample Description: BOILER HOUSE OFFICES ROOF/ROOFING MATERIAL - 1ST LAYER

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	10/27/2011	Black	20%	80%	None Detected	

Client Sample ID: 01-03

Lab Sample ID: 041128571-0003

Sample Description: SIDE STORAGE ROOF/ROOFING MATERIAL - 1ST LAYER

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	10/27/2011	Black	25%	75%	None Detected	

Client Sample ID: 02-04

Lab Sample ID: 041128571-0004

Sample Description: BOILER HOUSE ROOF/ROOFING MATERIAL- 2ND LAYER

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	10/27/2011	Gray	70%	30%	None Detected	

Client Sample ID: 02-05

Lab Sample ID: 041128571-0005

Sample Description: BOILER HOUSE OFFICES ROOF/ROOFING MATERIAL- 2ND LAYER

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	10/27/2011	Gray	70%	30%	None Detected	

Client Sample ID: 02-06

Lab Sample ID: 041128571-0006

Sample Description: SIDE STORAGE ROOF/ROOFING MATERIAL- 2ND LAYER

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	10/27/2011	Gray/Black	85%	15%	None Detected	

Client Sample ID: 03-07

Lab Sample ID: 041128571-0007

Sample Description: BOILER HOUSE ROOF/ROOFING MATERIAL - 3RD LAYER

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	10/27/2011	Black	70%	30%	None Detected	
TEM Grav. Reduction	10/28/2011	Black	0.0%	100%	None Detected	



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Attn: Jim Guillard

TTI Environmental Inc.
1253 North Church Street
Moorestown, NJ 08057

Proj: 11-431 WILLIAM PATERSON UNIVERSITY BOILER H

Summary Test Report for Asbestos Analysis in Accordance with N.J.A.C. 8:60

Client Sample ID: 03-08

Lab Sample ID: 041128571-0008

Sample Description: BOILER HOUSE OFFICES ROOF/ROOFING MATERIAL - 3RD LAYER

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	10/27/2011	Black	70%	30%	None Detected	

Client Sample ID: 03-09

Lab Sample ID: 041128571-0009

Sample Description: SIDE STORAGE ROOF/ROOFING MATERIAL - 3RD LAYER

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	10/27/2011	Black	80%	20%	None Detected	

Client Sample ID: 04-10

Lab Sample ID: 041128571-0010

Sample Description: BOILER HOUSE ROOF/ROOFING MATERIAL - 4TH LAYER

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	10/27/2011	Black	15%	85%	None Detected	
TEM Grav. Reduction	10/28/2011	Black	0.0%	100%	None Detected	

Client Sample ID: 04-11

Lab Sample ID: 041128571-0011

Sample Description: BOILER HOUSE OFFICES ROOF/ROOFING MATERIAL - 4TH LAYER

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	10/27/2011	Black	70%	30%	None Detected	

Client Sample ID: 04-12

Lab Sample ID: 041128571-0012

Sample Description: SIDE STORAGE ROOF/ROOFING MATERIAL - 4TH LAYER

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	10/27/2011	Black	35%	65%	None Detected	

Client Sample ID: 05-13

Lab Sample ID: 041128571-0013

Sample Description: BOILER HOUSE ROOF/ROOF FLASHING

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	10/27/2011	Black	0%	90%	10% Chrysotile	

Client Sample ID: 05-14

Lab Sample ID: 041128571-0014

Sample Description: BOILER HOUSE OFFICES ROOF/ROOF FLASHING

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	10/27/2011				Stop Positive (Not Analyzed)	

Client Sample ID: 05-15

Lab Sample ID: 041128571-0015

Sample Description: SIDE STORAGE ROOF/ROOF FLASHING

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	10/27/2011				Stop Positive (Not Analyzed)	



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Attn: Jim Guilardi
TTI Environmental Inc.
1253 North Church Street
Moorestown, NJ 08057

Proj: 11-431 WILLIAM PATERSON UNIVERSITY BOILER H

Summary Test Report for Asbestos Analysis in Accordance with N.J.A.C. 8:60

Initial report from: 10/27/2011 15:18:57

Analyst(s)

Garret Vliet	PLM	(4)
Leslie McCluskey	PLM	(9)
Peter Harrison	TEM Grav. Reduction	(3)

Stephen Siegel, CIH, Laboratory Manager
or other Approved Signatory

Any questions please contact Steve Siegel.

EMSL maintains liability limited to cost of analysis. This report relates only to the samples reported above and may not be reproduced, except in full, without written approval by EMSL. This test report must not be used to claim product endorsement by NVLAP or any agency of the U.S. Government. EMSL bears no responsibility for sample collection activities or analytical method limitations. The laboratory is not responsible for the accuracy of results when requested to physically separate and analyze layered samples. PLM alone is not consistently reliable in detecting asbestos in floor coverings and similar NOBs.

Samples analyzed by EMSL Analytical, Inc. Cinnaminson, NJ NVLAP Lab Code 101048-0, AIHA-LAP, LLC-IHLAP Lab 100194, NYS ELAP 10872, NJ DEP 03036



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041128571

E-MAIL: ALL RESULTS AND COC TO: jh-lablab@ttienv.com

PLM Sampling Data and Chain of Custody Record

PROJECT #:	CLIENT:	TTI PROJECT MANAGER:	DATE:
11-431	William Peterson University	Jim Guillard Michael Stocku	10/26/11
SAMPLER(S):	CLIENT CONTACT:	FACILITY:	DATE:
J.S.		Boiler House	10/26/11
Sample #	Sample Location	Material Description	Sample Container
C1-Q1	Boiler House Roof	Roofing Material - 1 st layer	White Pak
C1-Q2	Boiler House offices Roof	Roofing Material - 1 st layer	
C1-Q3	Side storage Roof	Roofing Material - 1 st layer	
C2-Q4	Boiler House Roof	Roofing Material - 2 nd layer	
C2-Q5	Boiler House offices Roof	Roofing Material - 2 nd layer	
C2-Q6	Side storage Roof	Roofing Material - 3 rd layer	
C3-Q7	Boiler House Roof	Roofing Material - 3 rd layer	
C3-Q8	Boiler House offices Roof	Roofing Material - 3 rd layer	
C3-Q9	Side storage Roof	Roofing Material - 3 rd layer	
C4-Q10	Boiler House Roof	Roofing Material - 4 th layer	
C4-Q11	Boiler House offices Roof	Roofing Material - 4 th layer	
C4-Q12	Side storage Roof	Roofing Material - 4 th layer	
C5-Q13	Boiler House Roof	Roof Flashing	
C5-Q14	Boiler House offices Roof	Roof Flashing	
C5-Q15	Side storage Roof	Roof Flashing	
Relinquished by: (Signature)	Date	Time	Received by: (Signature)
	10/26/11		Chelene W
Relinquished by: (Signature)	Date	Time	Received by: (Signature)
	10/26/11	3pm	
PO No.	Hour/Turnaround	Stop At First Positive	
	24		
<input checked="" type="checkbox"/> Perform TEM analysis of 1 st sample in each homogeneous group. (Initials)			
<input type="checkbox"/> For NOB samples with insufficient material for TEM analysis, please perform composite analysis using material from other samples in the same homogeneous group. (Initials)			