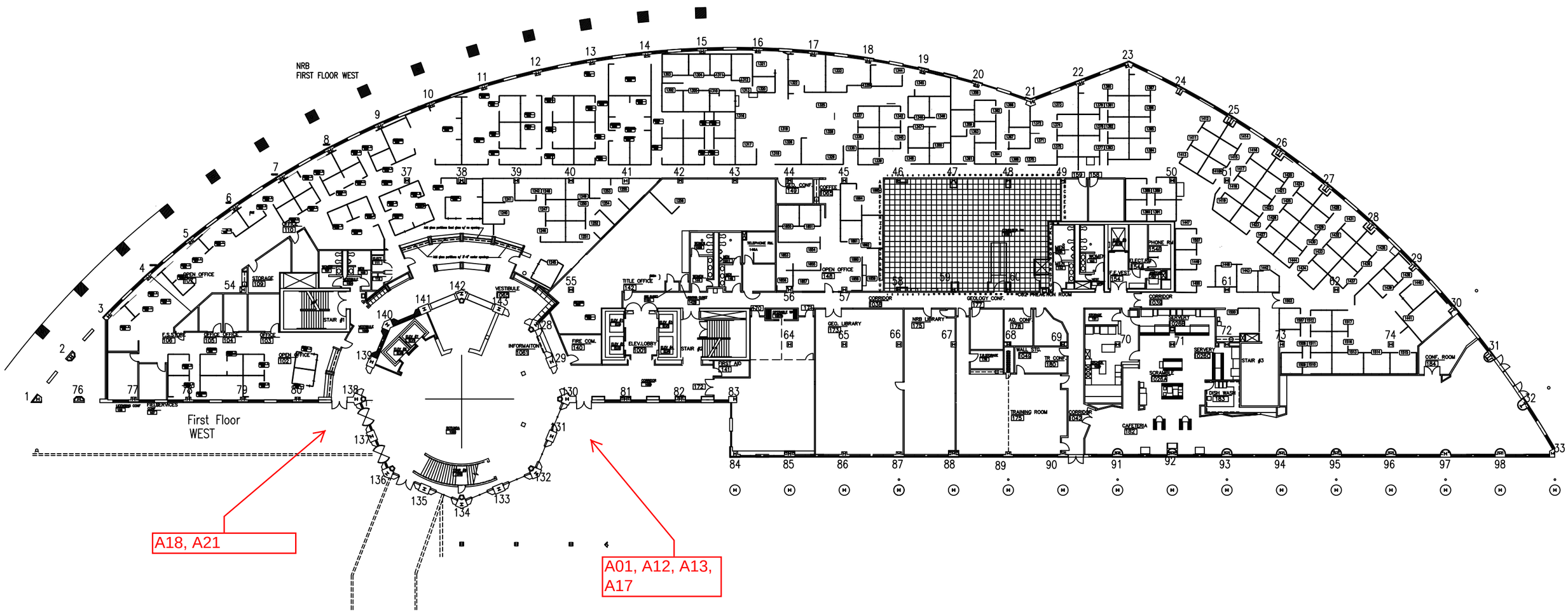
NRB - Building Envelope Repair and Retrofit Project
PBS Engineering and Environmental, Inc.
Fungal Air and Surface Sample Location Diagram - 1st Floor
Sample Collection Dates: 8-23 to 9-4-12



LEGEND
A# - Air Sample
T# - Surface Tape Sample

WASHINGTON STATE DEPARTMENT OF
Natural Resources
DIVISION OF ENGINEERING

region	section	township	range
county	acreage	mileage	
scale	date	file	drawing

Drawn	Date	Checked	Date	Approved	Date	Revised	Date

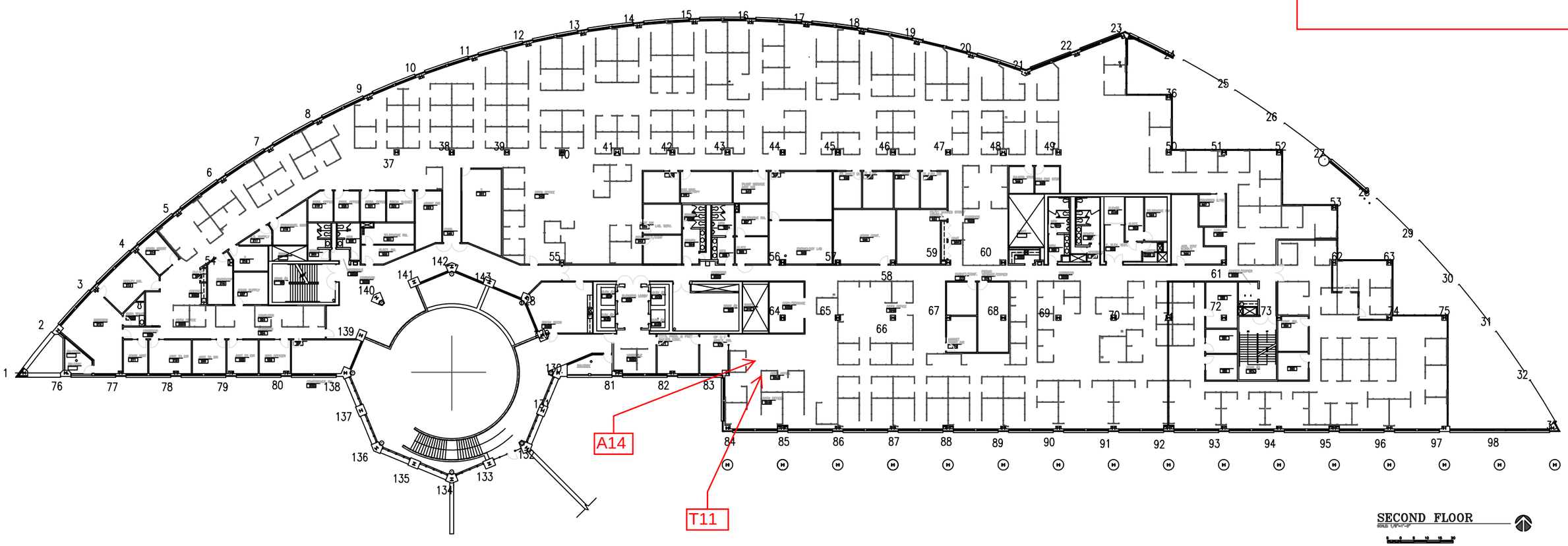
1111Washington St SE
Olympia Washington, 98504

2 of 4
sheet number
project number

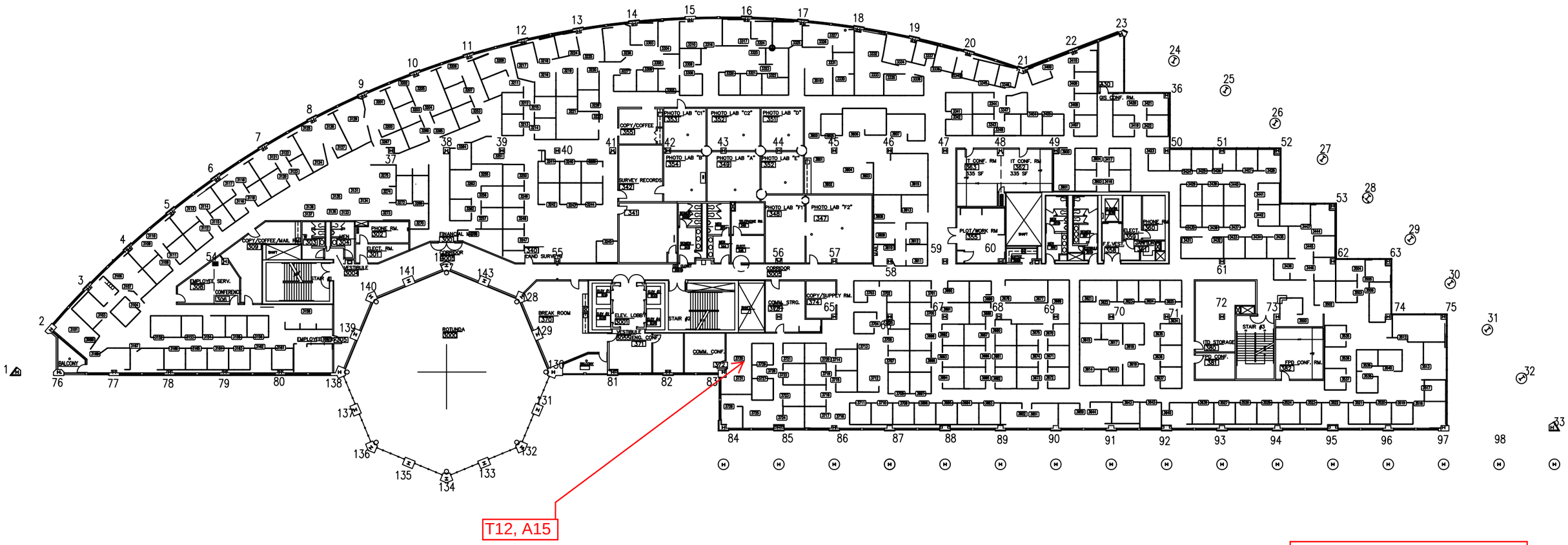
Natural Resources Building
First Floor Plan

NRB - Building Envelope Repair and Retrofit Project
PBS Engineering and Environmental, Inc.
Fungal Air and Surface Sample Location Diagram - 2nd Floor
Sample Collection Dates: 8-23 to 9-4-12

LEGEND
A# - Air Sample
T# - Surface Tape Sample



NRB - Building Envelope Repair and Retrofit Project
PBS Engineering and Environmental, Inc.
Fungal Air and Surface Sample Location Diagram - 3rd Floor
Sample Collection Dates: 8-23 to 9-4-12



LEGEND
A# - Air Sample
T# - Surface Tape Sample

WASHINGTON STATE DEPARTMENT OF
Natural Resources
DIVISION OF ENGINEERING

region	section	township	range
county	acreage	milage	
scale	date	file	drawing

Drawn	Date	Checked	Date	Approved	Date	Revised	Date

1111Washington St SE
Olympia Washington, 98504

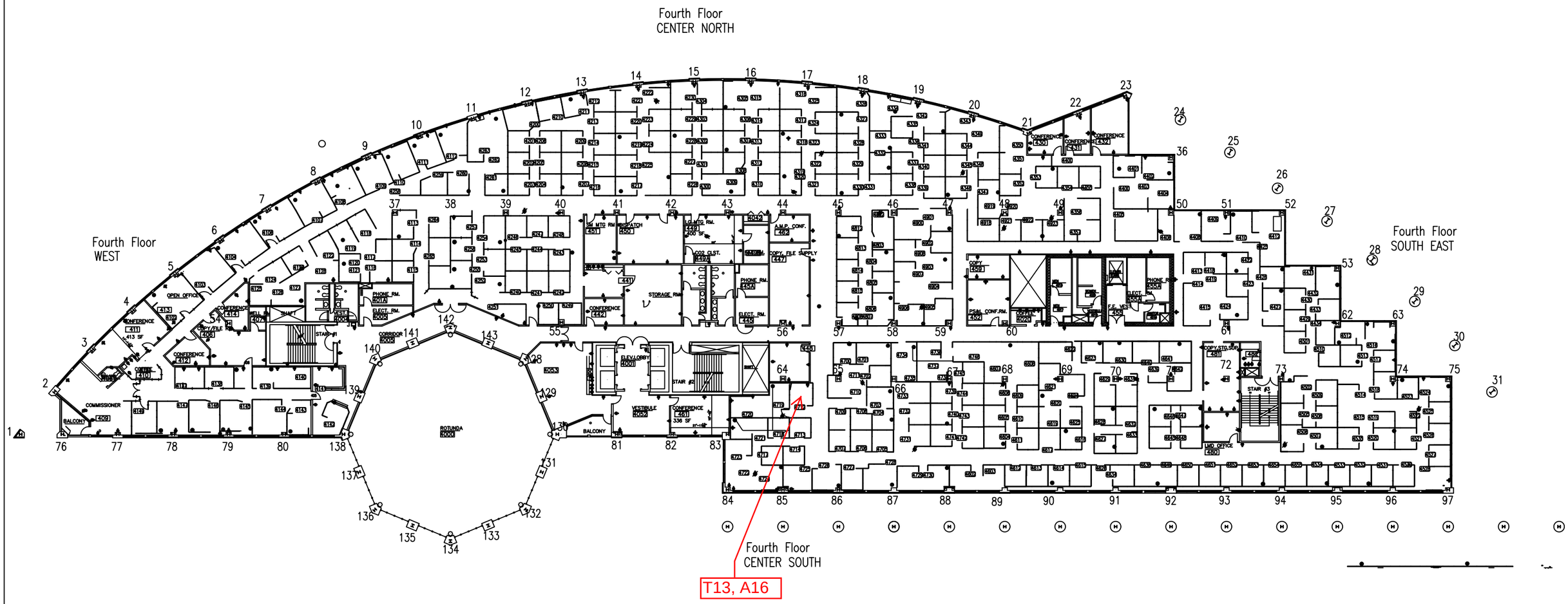
3 of 4
sheet number

project number

Natural Resources Building

Third Floor Plan

NRB - Building Envelope Repair and Retrofit Project
PBS Engineering and Environmental, Inc.
Fungal Air and Surface Sample Location Diagram - 4th Floor
Sample Collection Dates: 8-23 to 9-4-12



LEGEND
A# - Air Sample
T# - Surface Tape Sample

WASHINGTON STATE DEPARTMENT OF
Natural Resources
DIVISION OF ENGINEERING

region	section	township	range
county	acreage	milage	
scale	date	file	drawing

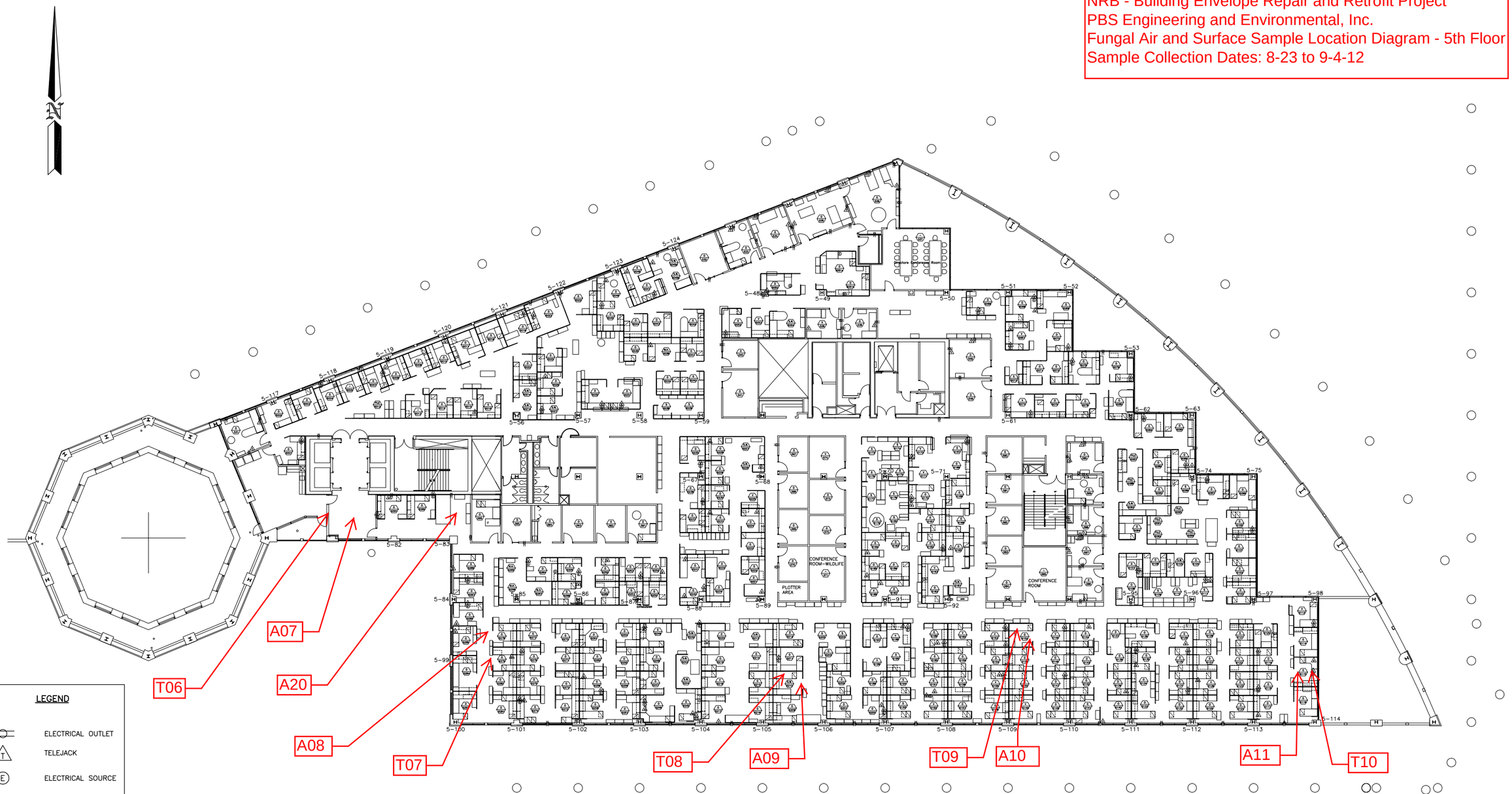
Drawn	Date	Checked	Date	Approved	Date	Revised	Date

1111Washington St SE
Olympia Washington, 98504

4 of 4
sheet number
project number

Natural Resources Building
Fourth Floor Plan

NRB - Building Envelope Repair and Retrofit Project
PBS Engineering and Environmental, Inc.
Fungal Air and Surface Sample Location Diagram - 5th Floor
Sample Collection Dates: 8-23 to 9-4-12



NRB 5TH FLOOR
SCALE: 1/16" = 1'-0"

LEGEND

	ELECTRICAL OUTLET
T	TELEJACK
E	ELECTRICAL SOURCE
D	DATA SOURCE
O	OCCUPIED
V	VACANT
S.W.	SHARED WORKSPACE
S	STORAGE
M.A.	MAIL AREA

LEGEND
A# - Air Sample
T# - Surface Tape Sample

WASHINGTON STATE
DEPARTMENT OF FISH AND WILDLIFE

SYM	DATE	REVISION DESCRIPTION	BY

APPROVED AND RELEASED FOR CONSTRUCTION
CHIEF ENGINEER ..... DATE: .....
PROGRAM ..... DATE: .....

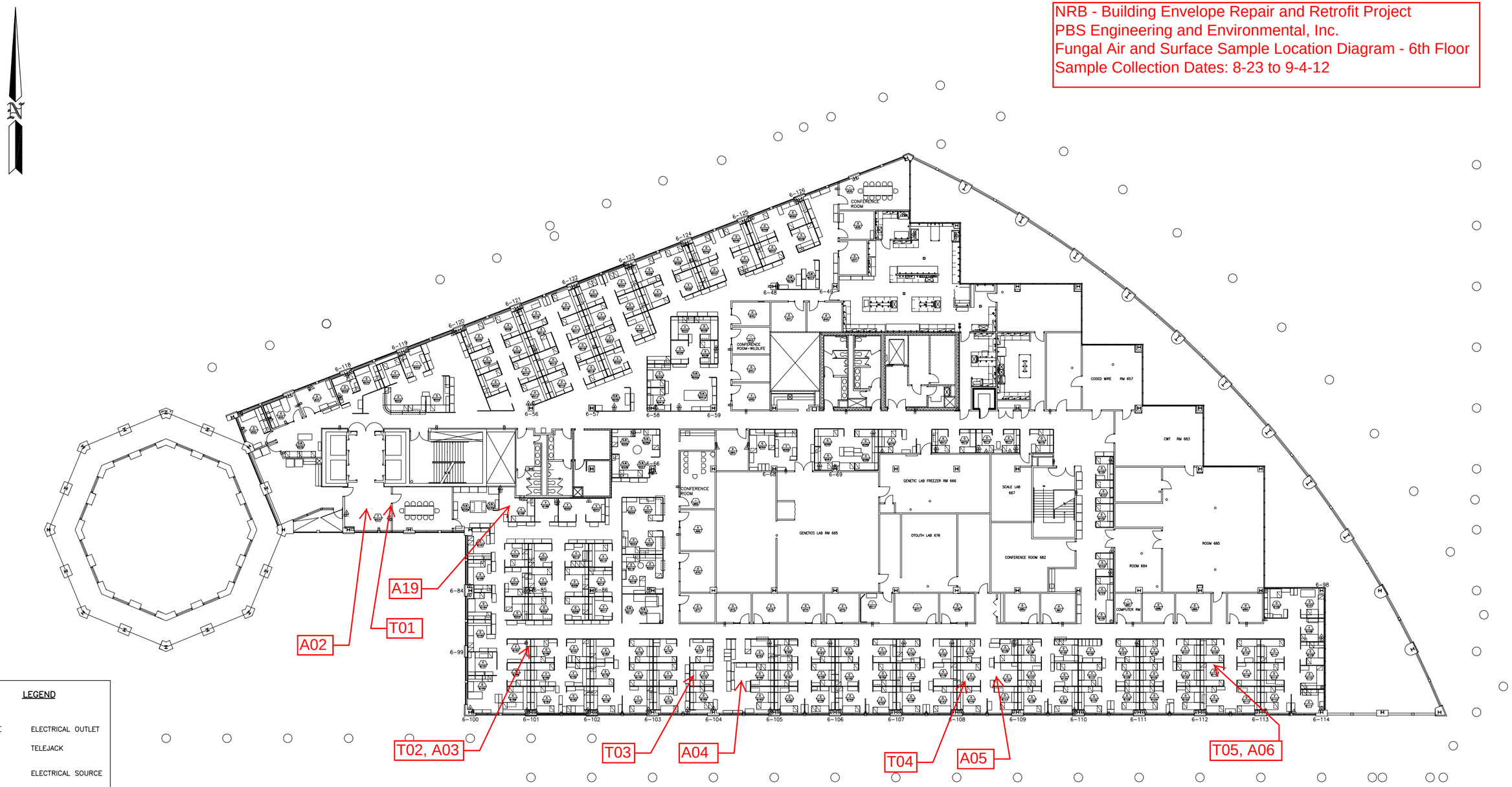
0 —— 1"
BAR MEASURES ONE INCH ON ORIGINAL DRAWINGS

DESIGNED BY
CHECKED BY
DRAWN BY A.J. & K.K.
DATE 10/10/2011

NATURAL RESOURCES BUILDING
5th FLOOR
FLOOR PLAN

PROJECT NO.
SHEET OF

NRB - Building Envelope Repair and Retrofit Project
PBS Engineering and Environmental, Inc.
Fungal Air and Surface Sample Location Diagram - 6th Floor
Sample Collection Dates: 8-23 to 9-4-12



NRB 6TH FLOOR
SCALE: 1/16" = 1'-0"

LEGEND

	ELECTRICAL OUTLET
T	TELEJACK
E	ELECTRICAL SOURCE
D	DATA SOURCE
O	OCCUPIED
V	VACANT
S.W.	SHARED WORKSPACE
S	STORAGE
M.A.	MAIL AREA

LEGEND
A# - Air Sample
T# - Surface Tape Sample

WASHINGTON STATE
DEPARTMENT OF FISH AND WILDLIFE

SYM	DATE	REVISION DESCRIPTION	BY

APPROVED AND RELEASED FOR CONSTRUCTION
CHIEF ENGINEER ..... DATE: .....
PROGRAM ..... DATE: .....

0 —— 1"
BAR MEASURES ONE INCH ON ORIGINAL DRAWINGS

DESIGNED BY
CHECKED BY
DRAWN BY A.J. & K.K.
DATE 10/10/2011

NATURAL RESOURCES BUILDING
6th FLOOR
FLOOR PLAN

PROJECT NO.
SHEET OF

Lab/Cor, Inc.
7619 6th Ave NW
Seattle, WA 98117

Analysis Report Cover

Final Report

A Professional Service Corporation in the Northwest

Phone: (206) 781-0155
Fax: (206) 789-8424
http://www.labcor.net

Job Number: 121104 **SEA**

Report Number: 121104R01
Report Date: 8/27/2012

Client: **PBS Engineering and Environmental, Inc.**
Address: **2517 Eastlake Ave E**
Suite 100
Seattle, WA 98102
Project Name: Natural Resources Bldg
Project No.: 40535.103.003
PO Number:
Sub Project:
Reference No.:

Enclosed please find results for samples submitted to our laboratory. A list of samples and analyses follows:

Lab/Cor Sample #	Client Sample # and Description	Analysis	Analysis Notes	Date Received:
121104 - S1	A01 - Ext. S., W. by Rotunda	NV, Air, Fungal ID		8/24/2012
121104 - S2	A02 - Fl. 6, Lobby @ Conf. Rm 630	NV, Air, Fungal ID		8/24/2012
121104 - S3	A03 - Fl. 6, S. @ W. (N-S) Wall	NV, Air, Fungal ID	No fungi observed.	8/24/2012
121104 - S4	A04 - Fl. 6, S. Wall West	NV, Air, Fungal ID		8/24/2012
121104 - S5	A05 - Fl. 6, S. Wall Cent	NV, Air, Fungal ID		8/24/2012
121104 - S6	A06 - Fl. 6, S. Wall East	NV, Air, Fungal ID		8/24/2012
121104 - S7	A07 - Fl 5, Lobby @ 530	NV, Air, Fungal ID		8/24/2012
121104 - S8	A08 - Fl 5, S. @ W. (N-S) Wall	NV, Air, Fungal ID		8/24/2012
121104 - S9	A09 - Fl 5, S. Wall West	NV, Air, Fungal ID		8/24/2012
121104 - S10	A10 - Fl 5, S. Wall Cent	NV, Air, Fungal ID		8/24/2012
121104 - S11	A11 - Fl 5, S. Wall East	NV, Air, Fungal ID		8/24/2012
121104 - S12	A12 - Ext. S., W. by Rotunda	NV, Air, Fungal ID		8/24/2012

Nonviable Air Air samples follow preparation and analysis techniques outlined in Method 5 of the laboratory SOP. Samples were collected using either a Zefon, Cyclex–D, or M2 Multi-Mold nonviable air sample cassette. Characteristic morphologies were observed by optical microscopy at a magnification of 600x. For each individual particle type observed, data was reported in particles per cubic meter of air (m3).

Due to various factors that influence uncertainty (media type, particle loading, staining, instrumentation and other variable aspects of the method), only the first two figures reported are considered to be significant. The area analyzed on each sample is 20%.

Disclaimer The results reported relate only to the samples tested or analyzed; the laboratory did not have control over sample collection. Interpretation of these results is the sole responsibility of the client.

If further clarification of these results is needed, please call us. Thank you for allowing the staff at Lab/Cor, Inc. the opportunity to provide you with the analytical services.

Sincerely,

Chandra Jeyabalan

X

Chandra Jeyabalan
Analyst

Lab/Cor, Inc.
7619 6th Ave NW
Seattle, WA 98117

Final Report

Phone: (206) 781-0155
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A Professional Service Corporation in the Northwest

Nonviable Air

Job Number: 121104
Client: PBS Engineering and Environmental, Inc.
Project Name: Natural Resources Bldg
Project No.: 40535.103.003
Reference No.:

Report Number: 121104R01
Date Received: 8/24/2012

Lab/Cor ID:	**S1**	**S2**
Sample No.:	A01	A02
Description:	Ext. S., W. by Rotunda	Fl. 6, Lobby @ Conf. Rm 630
Sample Measure:	150 L	150 L
Media Type:	Fungal-AllergencoD	Fungal-AllergencoD
Analyst - Analysis Date:	CJ - 8/27/2012	CJ - 8/27/2012
MRL:	33	33
Scope - Magnification:	Olympus BHS - 600	Olympus BHS - 600
Notes:		

Fungal Identification	**Raw Count***	**Total Count****	**Total/m³**	**Raw Count***	**Total Count****	**Total/m³**
Ascospores	5	25	167			
Aspergillus/ Penicillium-like	61	305	2033			
Basidiospores	43	215	1433	1	5	33
Botrytis	2	10	67			
Chaetomium	1	5	33			
Cladosporium	46	230	1533	2	10	67
Epicoccum				1	5	33
Ganoderma	3	15	100	1	5	33
Hyphal Fragments						
Myxo./ Periconia/ Smuts	3	15	100			
Pithomyces						
Rust Spore	1	5	33			
Unidentified Spore				2	10	67
Summary Total:	**165**	**825**	**5499**	**7**	**35**	**233**

* - Raw Counts per 20% of Sample
** - Total Count per Sample

Lab/Cor, Inc.
7619 6th Ave NW
Seattle, WA 98117

Final Report

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Nonviable Air

Job Number: 121104
Client: PBS Engineering and Environmental, Inc.
Project Name: Natural Resources Bldg
Project No.: 40535.103.003
Reference No.:

Report Number: 121104R01
Date Received: 8/24/2012

Lab/Cor ID:	**S3**	**S4**
Sample No.:	A03	A04
Description:	Fl. 6, S. @ W. (N-S) Wall	Fl. 6, S. Wall West
Sample Measure:	150 L	150 L
Media Type:	Fungal-AllergencoD	Fungal-AllergencoD
Analyst - Analysis Date:	CJ - 8/27/2012	CJ - 8/27/2012
MRL:	1	33
Scope - Magnification:	Olympus BHS - 600	Olympus BHS - 600
Notes:	No fungi observed.	

Fungal Identification	**Raw Count***	**Total Count****	**Total/m³**	**Raw Count***	**Total Count****	**Total/m³**
Ascospores						
Aspergillus/ Penicillium-like						
Basidiospores				1	5	33
Botrytis						
Chaetomium						
Cladosporium						
Epicoccum						
Ganoderma						
Hyphal Fragments						
Myxo./ Periconia/ Smuts						
Pithomyces				2	10	67
Rust Spore						
Unidentified Spore						
Summary Total:				**3**	**15**	**100**

* - Raw Counts per 20% of Sample
** - Total Count per Sample

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Final Report

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Nonviable Air

Job Number: 121104
Client: PBS Engineering and Environmental, Inc.
Project Name: Natural Resources Bldg
Project No.: 40535.103.003
Reference No.:

Report Number: 121104R01
Date Received: 8/24/2012

Lab/Cor ID:	**S5**	**S6**
Sample No.:	A05	A06
Description:	Fl. 6, S. Wall Cent	Fl. 6, S. Wall East
Sample Measure:	150 L	150 L
Media Type:	Fungal-AllergencoD	Fungal-AllergencoD
Analyst - Analysis Date:	CJ - 8/27/2012	CJ - 8/27/2012
MRL:	33	33
Scope - Magnification:	Olympus BHS - 600	Olympus BHS - 600
Notes:		

Fungal Identification	**Raw Count***	**Total Count****	**Total/m³**	**Raw Count***	**Total Count****	**Total/m³**
Ascospores						
Aspergillus/ Penicillium-like						
Basidiospores				1	5	33
Botrytis						
Chaetomium						
Cladosporium	4	20	133	5	25	167
Epicoccum	1	5	33			
Ganoderma						
Hyphal Fragments				2	10	67
Myxo./ Periconia/ Smuts						
Pithomyces						
Rust Spore	1	5	33	1	5	33
Unidentified Spore						
Summary Total:	**6**	**30**	**199**	**9**	**45**	**300**

* - Raw Counts per 20% of Sample
** - Total Count per Sample

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Final Report

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Nonviable Air

Job Number: **121104**
Client: **PBS Engineering and Environmental, Inc.**
Project Name: Natural Resources Bldg
Project No.: 40535.103.003
Reference No.:

Report Number: 121104R01
Date Received: 8/24/2012

Lab/Cor ID:	**S7**	**S8**
Sample No.:	A07	A08
Description:	Fl 5, Lobby @ 530	Fl 5, S. @ W. (N-S) Wall
Sample Measure:	150 L	150 L
Media Type:	Fungal-AllergencoD	Fungal-AllergencoD
Analyst - Analysis Date:	CJ - 8/27/2012	CJ - 8/27/2012
MRL:	33	33
Scope - Magnification:	Olympus BHS - 600	Olympus BHS - 600
Notes:		

Fungal Identification	**Raw Count***	**Total Count****	**Total/m³**	**Raw Count***	**Total Count****	**Total/m³**
Ascospores						
Aspergillus/ Penicillium-like	1	5	33			
Basidiospores				1	5	33
Botrytis						
Chaetomium						
Cladosporium				11	55	367
Epicoccum						
Ganoderma						
Hyphal Fragments				6	30	200
Myxo./ Periconia/ Smuts						
Pithomyces						
Rust Spore						
Unidentified Spore	1	5	33	1	5	33
Summary Total:	**2**	**10**	**66**	**19**	**95**	**633**

* - Raw Counts per 20% of Sample
** - Total Count per Sample

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Seattle, WA 98117

Final Report

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Nonviable Air

Job Number: **121104**
Client: **PBS Engineering and Environmental, Inc.**
Project Name: Natural Resources Bldg
Project No.: 40535.103.003
Reference No.:

Report Number: 121104R01
Date Received: 8/24/2012

Lab/Cor ID:	**S9**	**S10**
Sample No.:	A09	A10
Description:	Fl 5, S. Wall West	Fl 5, S. Wall Cent
Sample Measure:	150 L	150 L
Media Type:	Fungal-AllergencoD	Fungal-AllergencoD
Analyst - Analysis Date:	CJ - 8/27/2012	CJ - 8/27/2012
MRL:	33	33
Scope - Magnification:	Olympus BHS - 600	Olympus BHS - 600
Notes:		

Fungal Identification	**Raw Count***	**Total Count****	**Total/m³**	**Raw Count***	**Total Count****	**Total/m³**
Ascospores						
Aspergillus/ Penicillium-like						
Basidiospores	1	5	33			
Botrytis						
Chaetomium						
Cladosporium	5	25	167	2	10	67
Epicoccum						
Ganoderma						
Hyphal Fragments	1	5	33			
Myxo./ Periconia/ Smuts						
Pithomyces						
Rust Spore						
Unidentified Spore						
Summary Total:	**7**	**35**	**233**	**2**	**10**	**67**

* - Raw Counts per 20% of Sample
** - Total Count per Sample

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Seattle, WA 98117

Final Report

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Nonviable Air

Job Number: 121104
Client: PBS Engineering and Environmental, Inc.
Project Name: Natural Resources Bldg
Project No.: 40535.103.003
Reference No.:

Report Number: 121104R01
Date Received: 8/24/2012

Lab/Cor ID:	**S11**	**S12**
Sample No.:	A11	A12
Description:	Fl 5, S. Wall East	Ext. S., W. by Rotunda
Sample Measure:	150 L	150 L
Media Type:	Fungal-AllergencoD	Fungal-AllergencoD
Analyst - Analysis Date:	CJ - 8/27/2012	CJ - 8/27/2012
MRL:	33	33
Scope - Magnification:	Olympus BHS - 600	Olympus BHS - 600
Notes:		

Fungal Identification	**Raw Count***	**Total Count****	**Total/m³**	**Raw Count***	**Total Count****	**Total/m³**
Ascospores				2	10	67
Aspergillus/ Penicillium-like				32	160	1067
Basidiospores				19	95	633
Botrytis						
Chaetomium						
Cladosporium	2	10	67	45	225	1500
Epicoccum						
Ganoderma				1	5	33
Hyphal Fragments				3	15	100
Myxo./ Periconia/ Smuts						
Pithomyces				1	5	33
Rust Spore				1	5	33
Unidentified Spore				5	25	167
Summary Total:	**2**	**10**	**67**	**109**	**545**	**3633**

Reviewed by:

X Chandra Jeyabalan

Chandra Jeyabalan
Analyst

* - Raw Counts per 20% of Sample
** - Total Count per Sample

Lab/Cor, Inc.
7619 6th Ave NW
Seattle, WA 98117

Analysis Report Cover

Final Report

A Professional Service Corporation in the Northwest

Phone: (206) 781-0155
Fax: (206) 789-8424
http://www.labcor.net

Job Number: 121105 **SEA**

Report Number: 121105R01
Report Date: 8/27/2012

Client: **PBS Engineering and Environmental, Inc.**
Address: **2517 Eastlake Ave E**
Suite 100
Seattle, WA 98102
Project Name: Natural Resources Bldg
Project No.: 40535.103.003
PO Number:
Sub Project:
Reference No.:

Enclosed please find results for samples submitted to our laboratory. A list of samples and analyses follows:

Lab/Cor Sample #	Client Sample # and Description	Analysis	Analysis Notes	Date Received:
121105 - S1	T01 - Fl. 6, Top of Conf Rm 630 Sign	NV, Surface, Fungal ID Qual.		8/24/2012
121105 - S2	T02 - Fl. 6, W. Wall Top of Wood Bookshelf	NV, Surface, Fungal ID Qual.		8/24/2012
121105 - S3	T03 - Fl. 6, SW on Desktop	NV, Surface, Fungal ID Qual.		8/24/2012
121105 - S4	T04 - Fl. 6, S. Cent on Monitor	NV, Surface, Fungal ID Qual.		8/24/2012
121105 - S5	T05 - Fl. 6 SE Desk Behind Monitor	NV, Surface, Fungal ID Qual.		8/24/2012
121105 - S6	T06 - Fl. 5, Lobby on Thermostat @ 530	NV, Surface, Fungal ID Qual.		8/24/2012
121105 - S7	T07 - Fl. 5, W. Wall, Cloth on Bookcase	NV, Surface, Fungal ID Qual.	No fungi observed	8/24/2012
121105 - S8	T08 - Fl. 5, SW Top of Cubicle Wall	NV, Surface, Fungal ID Qual.		8/24/2012
121105 - S9	T09 - Fl. 5, S. Cent top of Metal File Cabinet	NV, Surface, Fungal ID Qual.		8/24/2012
121105 - S10	T10 - Fl. 5, SE, Corner of Desk by Window	NV, Surface, Fungal ID Qual.		8/24/2012

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Seattle, WA 98117

Final Report

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Job Number: 121105 **SEA**
Client: PBS Engineering and Environmental, Inc.
Project Name: Natural Resources Bldg

Report Number: 121105R01
Report Date: 8/27/2012

Nonviable Surface Surface samples follow preparation and analysis techniques outlined in Method 7 and Method 9 of the laboratory SOP. Samples were submitted as either swabs or adhesive tape samples. Swab samples were suspended in a buffer solution and stained using lacto-cotton blue. A 0.05 ml sub-sample of the buffer solution was examined. Tape samples were mounted on a slide and stained using lacto-cotton blue.

Characteristic morphologies were observed by optical microscopy at a magnification of 600x. Surface samples that were analyzed qualitatively were reported in Relative Abundance of fungal and particulate types; High, Moderate, Low, and Trace. The Minimum Reporting Limit is Trace (1-10 count in sample portion examined). Surface samples that were analyzed quantitatively were reported as the total concentration for each fungal and particulate type. The Minimum Reporting Limit for quantitative analysis of a swab sample is 4 particulates/cm2 if, for example, a 50 cm2 area was sampled. The Minimum Reporting Limit for quantitative analysis of a tape sample is 6 particulates/cm2 if, for example, a 50 cm2 area was sampled.

Disclaimer The results reported relate only to the samples tested or analyzed; the laboratory did not have control over sample collection. Interpretation of these results is the sole responsibility of the client.

If further clarification of these results is needed, please call us. Thank you for allowing the staff at Lab/Cor, Inc. the opportunity to provide you with the analytical services.

Sincerely,

x

Izumi Harris
Analyst

Lab/Cor, Inc.
7619 6th Ave NW
Seattle, WA 98117

Final Report

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A Professional Service Corporation in the Northwest

Nonviable Surface

Job Number: **121105**
Client: **PBS Engineering and Environmental, Inc.**
Project Name: Natural Resources Bldg
Project No.: 40535.103.003
Reference No.:

Report Number: 121105R01
Date Received: 8/24/2012

Lab/Cor ID:	**S1**	**S2**
Sample No.:	T01	T02
Description:	Fl. 6, Top of Conf Rm 630 Sign	Fl. 6, W. Wall Top of Wood Bookshelf
Sample Measure:	1 each	1 each
Media Type:	Fungal-BioTape	Fungal-BioTape
Analyst:	IH	IH
Analysis Date:	8/27/2012	8/27/2012
Notes:		

Fungal Identification	**Relative Abundance**	**Relative Abundance**
Alternaria		
Ascospores		Trace
Aspergillus/ Penicillium-like		
Basidiospores	Trace	Trace
Ganoderma		
Hyphal Fragments		
Myxo./ Periconia/ Smuts		
Unidentified Spore		Trace

Trace = <10 counts in examined area
Low = <30% coverage of examined area
Moderate = 30% - 70% coverage of examined area
High = >70% coverage of examined area

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Nonviable Surface

Job Number: **121105**
Client: **PBS Engineering and Environmental, Inc.**
Project Name: Natural Resources Bldg
Project No.: 40535.103.003
Reference No.:

Report Number: 121105R01
Date Received: 8/24/2012

Lab/Cor ID:	**S3**	**S4**
Sample No.:	T03	T04
Description:	Fl. 6, SW on Desktop	Fl. 6, S. Cent on Monitor
Sample Measure:	1 each	1 each
Media Type:	Fungal-BioTape	Fungal-BioTape
Analyst:	IH	IH
Analysis Date:	8/27/2012	8/27/2012
Notes:		

Fungal Identification	**Relative Abundance**	**Relative Abundance**
Alternaria		
Ascospores		
Aspergillus/ Penicillium-like		
Basidiospores		Trace
Ganoderma		
Hyphal Fragments		
Myxo./ Periconia/ Smuts		Trace
Unidentified Spore	Trace	Trace

Trace = <10 counts in examined area
Low = <30% coverage of examined area
Moderate = 30% - 70% coverage of examined area
High = >70% coverage of examined area

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Nonviable Surface

Job Number: **121105**
Client: **PBS Engineering and Environmental, Inc.**
Project Name: Natural Resources Bldg
Project No.: 40535.103.003
Reference No.:

Report Number: 121105R01
Date Received: 8/24/2012

Lab/Cor ID:	**S5**	**S6**
Sample No.:	T05	T06
Description:	Fl. 6 SE Desk Behind Monitor	Fl. 5, Lobby on Thermostat @ 530
Sample Measure:	1 each	1 each
Media Type:	Fungal-BioTape	Fungal-BioTape
Analyst:	IH	IH
Analysis Date:	8/27/2012	8/27/2012
Notes:		

Fungal Identification	**Relative Abundance**	**Relative Abundance**
Alternaria		
Ascospores		
Aspergillus/ Penicillium-like		
Basidiospores	Trace	Trace
Ganoderma		Trace
Hyphal Fragments		
Myxo./ Periconia/ Smuts		
Unidentified Spore	Trace	Trace

Trace = <10 counts in examined area
Low = <30% coverage of examined area
Moderate = 30% - 70% coverage of examined area
High = >70% coverage of examined area

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Nonviable Surface

Job Number: **121105**
Client: **PBS Engineering and Environmental, Inc.**
Project Name: Natural Resources Bldg
Project No.: 40535.103.003
Reference No.:

Report Number: 121105R01
Date Received: 8/24/2012

Lab/Cor ID:	**S7**	**S8**
Sample No.:	T07	T08
Description:	Fl. 5, W. Wall, Cloth on Bookcase	Fl. 5, SW Top of Cubicle Wall
Sample Measure:	1 each	1 each
Media Type:	Fungal-BioTape	Fungal-BioTape
Analyst:	IH	IH
Analysis Date:	8/27/2012	8/27/2012
Notes:	No fungi observed	

Fungal Identification	**Relative Abundance**	**Relative Abundance**
Alternaria		
Ascospores		
Aspergillus/ Penicillium-like		
Basidiospores		Trace
Ganoderma		Trace
Hyphal Fragments		Trace
Myxo./ Periconia/ Smuts		
Unidentified Spore		

Trace = <10 counts in examined area
Low = <30% coverage of examined area
Moderate = 30% - 70% coverage of examined area
High = >70% coverage of examined area

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Nonviable Surface

Job Number: 121105
Client: PBS Engineering and Environmental, Inc.
Project Name: Natural Resources Bldg
Project No.: 40535.103.003
Reference No.:

Report Number: 121105R01
Date Received: 8/24/2012

Lab/Cor ID:	**S9**	**S10**
Sample No.:	T09	T10
Description:	Fl. 5, S. Cent top of Metal File Cabinet	Fl. 5, SE, Corner of Desk by Window
Sample Measure:	1 each	1 each
Media Type:	Fungal-BioTape	Fungal-BioTape
Analyst:	IH	IH
Analysis Date:	8/27/2012	8/27/2012
Notes:		

Fungal Identification	**Relative Abundance**	**Relative Abundance**
Alternaria	Trace	
Ascospores		
Aspergillus/ Penicillium-like		Trace
Basidiospores		Trace
Ganoderma		
Hyphal Fragments	Trace	
Myxo./ Periconia/ Smuts		
Unidentified Spore		Trace

Reviewed by:

X

Izumi Harris
Analyst

Trace = <10 counts in examined area
Low = <30% coverage of examined area
Moderate = 30% - 70% coverage of examined area
High = >70% coverage of examined area

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Phone: (206) 781-0155
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Job Number: 121124 **SEA**

Report Number: 121124R01

Report Date: 8/31/2012

Client: **PBS Engineering and Environmental, Inc.**

Address: **2517 Eastlake Ave E**
Suite 100
Seattle, WA 98102

Project Name: Natural Resources Bldg

Project No.: 40535.103.003

PO Number:

Sub Project:

Reference No.:

Enclosed please find results for samples submitted to our laboratory. A list of samples and analyses follows:

Lab/Cor Sample #	Client Sample # and Description	Analysis	Analysis Notes	Date Received:
121124 - S6	T11 - 2nd Fl, SE of Elevators, Top of Cubicle Wall	NV, Surface, Fungal ID Qual.		8/30/2012
121124 - S7	T12 - 3rd Fl, SE of Elevators, Top of Metal Cabinet	NV, Surface, Fungal ID Qual.		8/30/2012
121124 - S8	T13 - 4th Fl, SE of Elevators, Top of Metal Bookshelf	NV, Surface, Fungal ID Qual.		8/30/2012

Nonviable Surface Surface samples follow preparation and analysis techniques outlined in Method 7 and Method 9 of the laboratory SOP. Samples were submitted as either swabs or adhesive tape samples. Swab samples were suspended in a buffer solution and stained using lacto-cotton blue. A 0.05 ml sub-sample of the buffer solution was examined. Tape samples were mounted on a slide and stained using lacto-cotton blue.

Characteristic morphologies were observed by optical microscopy at a magnification of 600x. Surface samples that were analyzed qualitatively were reported in Relative Abundance of fungal and particulate types; High, Moderate, Low, and Trace. The Minimum Reporting Limit is Trace (1-10 count in sample portion examined). Surface samples that were analyzed quantitatively were reported as the total concentration for each fungal and particulate type. The Minimum Reporting Limit for quantitative analysis of a swab sample is 4 particulates/cm2 if, for example, a 50 cm2 area was sampled. The Minimum Reporting Limit for quantitative analysis of a tape sample is 6 particulates/cm2 if, for example, a 50 cm2 area was sampled.

Disclaimer The results reported relate only to the samples tested or analyzed; the laboratory did not have control over sample collection. Interpretation of these results is the sole responsibility of the client.

If further clarification of these results is needed, please call us. Thank you for allowing the staff at Lab/Cor, Inc. the opportunity to provide you with the analytical services.

Sincerely,

x Chandra Jeyabalan

Chandra Jeyabalan
Analyst

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Nonviable Surface

Job Number: **121124**
Client: **PBS Engineering and Environmental, Inc.**
Project Name: Natural Resources Bldg
Project No.: 40535.103.003
Reference No.:

Report Number: 121124R01
Date Received: 8/30/2012

Lab/Cor ID:	**S6**	**S7**
Sample No.:	T11	T12
Description:	2nd Fl, SE of Elevators, Top of Cubicle Wall	3rd Fl, SE of Elevators, Top of Metal Cabinet
Sample Measure:	1 each	1 each
Media Type:	Fungal-BioTape	Fungal-BioTape
Analyst:	CJ	CJ
Analysis Date:	8/31/2012	8/31/2012
Notes:		

Fungal Identification	**Relative Abundance**	**Relative Abundance**
Ascospores	Trace	Trace
Basidiospores	Trace	Trace
Cladosporium		Trace
Ganoderma		Trace
Hyphal Fragments	Trace	

Trace = <10 counts in examined area
Low = <30% coverage of examined area
Moderate = 30% - 70% coverage of examined area
High = >70% coverage of examined area

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Nonviable Surface

Job Number: **121124**
Client: **PBS Engineering and Environmental, Inc.**
Project Name: Natural Resources Bldg
Project No.: 40535.103.003
Reference No.:

Report Number: 121124R01
Date Received: 8/30/2012

Lab/Cor ID:	**S8**	
Sample No.:	T13	
Description:	4th Fl, SE of Elevators, Top of Metal Bookshelf	
Sample Measure:	1 each	
Media Type:	Fungal-BioTape	
Analyst:	CJ	
Analysis Date:	8/31/2012	
Notes:		

Fungal Identification	**Relative Abundance**	**Relative Abundance**
Ascospores	Trace	
Basidiospores	Trace	
Cladosporium		
Ganoderma		
Hyphal Fragments	Trace	

Reviewed by:

Digital Signature for Lab Use Only

X Chandra Jeyabalan

Chandra Jeyabalan
Analyst

Trace = <10 counts in examined area
Low = <30% coverage of examined area
Moderate = 30% - 70% coverage of examined area
High = >70% coverage of examined area

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Job Number: 121124 **SEA**

Report Number: 121124R01
Report Date: 8/31/2012

Client: **PBS Engineering and Environmental, Inc.**
Address: **2517 Eastlake Ave E**
Suite 100
Seattle, WA 98102
Project Name: Natural Resources Bldg
Project No.: 40535.103.003
PO Number:
Sub Project:
Reference No.:

Enclosed please find results for samples submitted to our laboratory. A list of samples and analyses follows:

Lab/Cor Sample #	Client Sample # and Description	Analysis	Analysis Notes	Date Received:
121124 - S1	A13 - Exterior, S., W. by Rotunda	NV, Air, Fungal ID		8/30/2012
121124 - S2	A14 - 2nd Fl, SE of Elevators @GWB	NV, Air, Fungal ID		8/30/2012
121124 - S3	A15 - 3rd Fl, SE of Elevators @GWB	NV, Air, Fungal ID		8/30/2012
121124 - S4	A16 - 4th Fl, SE of Elevators @GWB	NV, Air, Fungal ID		8/30/2012
121124 - S5	A17 - Exterior, S., W. by Rotunda	NV, Air, Fungal ID		8/30/2012

Nonviable Air Air samples follow preparation and analysis techniques outlined in Method 5 of the laboratory SOP. Samples were collected using either a Zefon, Cyclex–D, or M2 Multi-Mold nonviable air sample cassette. Characteristic morphologies were observed by optical microscopy at a magnification of 600x. For each individual particle type observed, data was reported in particles per cubic meter of air (m3).

Due to various factors that influence uncertainty (media type, particle loading, staining, instrumentation and other variable aspects of the method), only the first two figures reported are considered to be significant. The area analyzed on each sample is 20%.

Disclaimer The results reported relate only to the samples tested or analyzed; the laboratory did not have control over sample collection. Interpretation of these results is the sole responsibility of the client.

If further clarification of these results is needed, please call us. Thank you for allowing the staff at Lab/Cor, Inc. the opportunity to provide you with the analytical services.

Sincerely,

Chandra Jeyabalan

X

Chandra Jeyabalan
Analyst

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Nonviable Air

Job Number: 121124
Client: PBS Engineering and Environmental, Inc.
Project Name: Natural Resources Bldg
Project No.: 40535.103.003
Reference No.:

Report Number: 121124R01
Date Received: 8/30/2012

Lab/Cor ID:	**S1**	**S2**
Sample No.:	A13	A14
Description:	Exterior, S., W. by Rotunda	2nd Fl, SE of Elevators @GWB
Sample Measure:	150 L	150 L
Media Type:	Fungal-AllergencoD	Fungal-AllergencoD
Analyst - Analysis Date:	CJ - 8/31/2012	CJ - 8/31/2012
MRL:	33	33
Scope - Magnification:	Olympus BHS - 600	Olympus BHS - 600
Notes:		

Fungal Identification	**Raw Count***	**Total Count****	**Total/m³**	**Raw Count***	**Total Count****	**Total/m³**
Alternaria						
Ascospores	4	20	133			
Aspergillus/ Penicillium-like	14	70	467	6	30	200
Basidiospores	80	400	2667	2	10	67
Cladosporium	43	215	1433	6	30	200
Ganoderma				1	5	33
Hyphal Fragments	1	5	33			
Rust Spore				1	5	33
Unidentified Spore						
Summary Total:	**142**	**710**	**4733**	**16**	**80**	**533**

* - Raw Counts per 20% of Sample
** - Total Count per Sample

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Nonviable Air

Job Number: 121124
Client: PBS Engineering and Environmental, Inc.
Project Name: Natural Resources Bldg
Project No.: 40535.103.003
Reference No.:

Report Number: 121124R01
Date Received: 8/30/2012

Lab/Cor ID:	**S3**	**S4**
Sample No.:	A15	A16
Description:	3rd Fl, SE of Elevators @GWB	4th Fl, SE of Elevators @GWB
Sample Measure:	150 L	150 L
Media Type:	Fungal-AllergencoD	Fungal-AllergencoD
Analyst - Analysis Date:	CJ - 8/31/2012	CJ - 8/31/2012
MRL:	33	33
Scope - Magnification:	Olympus BHS - 600	Olympus BHS - 600
Notes:		

Fungal Identification	**Raw Count***	**Total Count****	**Total/m³**	**Raw Count***	**Total Count****	**Total/m³**
Alternaria						
Ascospores						
Aspergillus/ Penicillium-like	1	5	33			
Basidiospores				1	5	33
Cladosporium	1	5	33	1	5	33
Ganoderma						
Hyphal Fragments				1	5	33
Rust Spore						
Unidentified Spore				1	5	33
Summary Total:	**2**	**10**	**66**	**4**	**20**	**132**

* - Raw Counts per 20% of Sample
** - Total Count per Sample

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Nonviable Air

Job Number: 121124
Client: PBS Engineering and Environmental, Inc.
Project Name: Natural Resources Bldg
Project No.: 40535.103.003
Reference No.:

Report Number: 121124R01
Date Received: 8/30/2012

Lab/Cor ID:	**S5**	
Sample No.:	A17	
Description:	Exterior, S., W. by Rotunda	
Sample Measure:	150 L	
Media Type:	Fungal-AllergencoD	
Analyst - Analysis Date:	CJ - 8/31/2012	
MRL:	33	
Scope - Magnification:	Olympus BHS - 600	
Notes:		

Fungal Identification	Raw Count*	Total Count**	Total/m³	Raw Count*	Total Count**	Total/m³
Alternaria	1	5	33			
Ascospores	4	20	133			
Aspergillus/ Penicillium-like	17	85	567			
Basidiospores	90	450	3000			
Cladosporium	34	170	1133			
Ganoderma	5	25	167			
Hyphal Fragments						
Rust Spore						
Unidentified Spore						
Summary Total:	**151**	**755**	**5033**			

Reviewed by:

x Chandra Jeyabalan

Chandra Jeyabalan
Analyst

* - Raw Counts per 20% of Sample
** - Total Count per Sample

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Analysis Report Cover

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Phone: (206) 781-0155
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Job Number: 121135 **SEA**

Report Number: 121135R01
Report Date: 9/4/2012

Client: PBS Engineering and Environmental, Inc.
Address: 2517 Eastlake Ave E
Suite 100
Seattle, WA 98102
Project Name: Natural Resources Bldg
Project No.: 40535.103.003
PO Number:
Sub Project:
Reference No.:

Enclosed please find results for samples submitted to our laboratory. A list of samples and analyses follows:

Lab/Cor Sample #	Client Sample # and Description	Analysis	Analysis Notes	Date Received:
121135 - S1	A18 - Ext. SW. 1st fl. W of Rotunda	NV, Air, Fungal ID		9/4/2012
121135 - S2	A19 - 6th fl, SW of Restrooms	NV, Air, Fungal ID		9/4/2012
121135 - S3	A20 - 5th fl, S. of W. Stairway	NV, Air, Fungal ID		9/4/2012
121135 - S4	A21 - Ext. SW. 1st fl. W of Rotunda	NV, Air, Fungal ID		9/4/2012

Nonviable Air Air samples follow preparation and analysis techniques outlined in Method 5 of the laboratory SOP. Samples were collected using either a Zefon, Cyclex–D, or M2 Multi-Mold nonviable air sample cassette. Characteristic morphologies were observed by optical microscopy at a magnification of 600x. For each individual particle type observed, data was reported in particles per cubic meter of air (m3).

Due to various factors that influence uncertainty (media type, particle loading, staining, instrumentation and other variable aspects of the method), only the first two figures reported are considered to be significant. The area analyzed on each sample is 20%.

Disclaimer The results reported relate only to the samples tested or analyzed; the laboratory did not have control over sample collection. Interpretation of these results is the sole responsibility of the client.

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Sincerely,

X

Izumi Harris
Analyst

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Nonviable Air

Job Number: **121135**
Client: **PBS Engineering and Environmental, Inc.**
Project Name: Natural Resources Bldg
Project No.: 40535.103.003
Reference No.:

Report Number: 121135R01
Date Received: 9/4/2012

Lab/Cor ID:	**S1**	**S2**
Sample No.:	A18	A19
Description:	Ext. SW. 1st fl. W of Rotunda	6th fl, SW of Restrooms
Sample Measure:	150 L	150 L
Media Type:	Fungal-AllergencoD	Fungal-AllergencoD
Analyst - Analysis Date:	IH - 9/4/2012	IH - 9/4/2012
MRL:	33	33
Scope - Magnification:	Olympus BHT-BH2 - 600	Olympus BHT-BH2 - 600
Notes:		

Fungal Identification	**Raw Count***	**Total Count****	**Total/m³**	**Raw Count***	**Total Count****	**Total/m³**
Ascospores	9	45	300	1	5	33
Aspergillus/ Penicillium-like	22	110	733			
Basidiospores	140	700	4667	1	5	33
Botrytis						
Cladosporium	55	275	1833	1	5	33
Ganoderma	14	70	467			
Hyphal Fragments	4	20	133			
Myxo./ Periconia/ Smuts						
Oidium/ Peronospora						
Rust Spore	3	15	100			
Unidentified Spore	2	10	67			
Summary Total:	**249**	**1245**	**8300**	**3**	**15**	**99**

* - Raw Counts per 20% of Sample
** - Total Count per Sample

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Nonviable Air

Job Number: **121135**
Client: **PBS Engineering and Environmental, Inc.**
Project Name: Natural Resources Bldg
Project No.: 40535.103.003
Reference No.:

Report Number: 121135R01
Date Received: 9/4/2012

Lab/Cor ID:	**S3**	**S4**
Sample No.:	A20	A21
Description:	5th fl, S. of W. Stairway	Ext. SW. 1st fl. W of Rotunda
Sample Measure:	150 L	150 L
Media Type:	Fungal-AllergencoD	Fungal-AllergencoD
Analyst - Analysis Date:	IH - 9/4/2012	IH - 9/4/2012
MRL:	33	33
Scope - Magnification:	Olympus BHT-BH2 - 600	Olympus BHT-BH2 - 600
Notes:		

Fungal Identification	**Raw Count***	**Total Count****	**Total/m³**	**Raw Count***	**Total Count****	**Total/m³**
Ascospores				12	60	400
Aspergillus/ Penicillium-like				12	60	400
Basidiospores				150	750	5000
Botrytis				1	5	33
Cladosporium				14	70	467
Ganoderma				3	15	100
Hyphal Fragments				4	20	133
Myxo./ Periconia/ Smuts	1	5	33	2	10	67
Oidium/ Peronospora				2	10	67
Rust Spore						
Unidentified Spore				2	10	67
Summary Total:	**1**	**5**	**33**	**202**	**1010**	**6734**

Reviewed by:

Digital Signature for Lab Use Only

x

Izumi Harris
Analyst

* - Raw Counts per 20% of Sample
** - Total Count per Sample