



AWS 1860
March 15, 2017

Doug Anderson
County of Mendocino
851 Low Gap Rd
Ukiah, CA

**RE: Pre-Demolition Asbestos Inspection Report
Public Health Branch, Roof
1120 So Dora St, Ukiah, CA**

Dear Mr. Anderson:

Air & Water SCIENCES (AWS) is pleased to submit the following Asbestos Inspection Report for the site referenced above. This report includes the procedures and methodologies followed and analytical laboratory data from our inspection performed on February 23, 2017.

AWS was requested to take samples of suspected asbestos containing materials (ACM) from the roof. **Analytical results of the samples performed by polarized light microscopy (PLM) indicated that the tan texture on the drywall system in Room 102 was identified to contain 1% Chrysotile asbestos. As the tan Joint Compound and texture is below a layer of paint, all drywall materials within the old portion of the building should be considered as ACM or tested per room. Transite® siding on the exterior was identified to contain 35% Chrysotile asbestos. The remaining samples indicated that no ACM were identified.**

AWS appreciates the opportunity to perform these services for you and we look forward to working with you in the future. Please know that if you have questions or comments regarding the information in this report at any time or if we can be of further assistance, we can be reached at (707) 769-2289.

Respectfully submitted,
Air & Water SCIENCES

A handwritten signature in blue ink, appearing to read "Chip Prokop".



Chip Prokop, PE, CIEC, CAC 08-4420
Principal



Background

The office building is located at 1120 South Dora Street in Ukiah, California. The building is used by the County of Mendocino for one of their Public Health branches. The roof is set to be replaced in the near future. Its original construction date is unknown, however was likely prior to 1978.

The materials that were tested as suspected asbestos containing materials (ACM) are included in Table 1. AWS collected samples of suspect asbestos containing materials including:

- Roofing
- Penetration Mastic
- Drywall System
- **Texture**
- Ceiling Tile
- Fireproofing
- HVAC Tape and Mastic
- **Transite®**
- Mastic

Survey Results

The roofing asbestos inspection was performed by Chip Prokop, a Certified Asbestos Consultant (CAC 08-4420). The ACM inspection was performed in areas that were accessible to the inspector at the time of the site visit. A total of fifty-six (56) bulk samples were collected from fifteen (15) homogeneous building materials identified within the building. The laboratory provided a total of ninety-six (96) analytical results based upon the number of layers that were analyzed. AWS instructed the laboratory to stop after the first positive identification of ACM in a homogeneous material.

The bulk samples were analyzed by Aerobiology Laboratory in Phoenix, Arizona using the methods prescribed in Method 40 CFR, Ch. 1, Part 763, Subpart F, Appendix A in the Code of Federal Register in analyzing bulk samples. This laboratory participates in the NVLAP and ELAP quality assurance programs for PLM, and is accredited by the National Institute of Standards and Technology (NIST) and the California Department of Health Services Environmental Laboratory Accreditation Program for Bulk Asbestos Analyses (Title 22 of California Code of Regulations [CCR], Section 66261.24), number 200999-0. The suspect asbestos bulk samples were collected and submitted to the laboratory using established chain-of-custody procedures.

Sampling Results

AWS was requested to take samples of suspected ACM from the roof. **Analytical results of the samples performed by polarized light microscopy (PLM) indicated that the tan texture on the drywall system in Room 102 was identified to contain 1% Chrysotile asbestos. Transite® siding on the exterior was identified to contain 35% Chrysotile asbestos. The remaining samples indicated that no ACM were identified.**

As California Occupational Safety and Health Administration (CalOSHA) regulates potential exposures during removal of all asbestos containing material regardless of concentration we recommend that an asbestos abatement firm perform the removal of these materials. All drywall within the old portion of the building should be considered as positive for ACM unless tested per room as it is not possible to determine where the tan texture or joint compound is present without testing or additional information.

Important Note:

Additional ACM may be present on site in inaccessible or concealed spaces. These spaces include, but are not limited to, crawl spaces, pipe chases, spaces between wall/ceiling/door/floor cavities, interior of mechanical components, beneath foundation pads, etc.

When future activities, including maintenance, renovation, or demolition activities, make these areas accessible, AWS recommends that a thorough assessment of these spaces be conducted to identify and confirm the presence or absence of additional ACM. Until this is done, all previously unidentified materials must be treated as Presumed Asbestos Containing Materials (PACM) in accordance with 29 CFR 1926.1101 and 1910.1001.

Limitations

The interpretation of the preliminary findings identified in this report is based upon our professional experience and qualifications. The field investigation and laboratory results are limited to only those areas, which were exposed and/or physically accessible to the inspector as outlined by the scope of work and/or as directed by the client. The study is also limited to the information provided by the client at the time of the inspection. Quantities listed within this report are estimations and should be confirmed by an abatement contractor prior to renovation and/or demolition work is performed.

Although polarized light microscopy (PLM) is the prescribed analysis for bulk sample evaluation, PLM is not consistently reliable in detecting asbestos in floor coverings and similar non-friable organically bounded materials. Quantitative inspection using transmission electron microscopy (TEM) is currently the only method that can be used to determine if this material can be considered or treated as non-ACM. However, TEM is not considered cost effective in a limited asbestos survey and is done only upon client request. Please let AWS know if this additional analysis is desired.

AWS is not qualified to present medical advice. If any present or future health issues arise, it is recommended that the findings in this report be presented to a qualified medical professional for review. Additionally, AWS is not a law firm, and therefore, makes no representations regarding any potential liability of any person or entity for site conditions.

Doug Anderson
Public Health Roof
March 16, 2017
Page 5 of 9

SECTION 2

BAAQMD/NESHAPS NOTIFICATION INFORMATION

1120 So Dora St, Ukiah, CA

Inspection Date	2/23/2017
Laboratory	Aerobiology Laboratory Assoc, Inc
Number of Samples	56 PLM
Date Analyzed	3/1/2017
Inspector Certification	CAC
Training Provider	M&C Environmental
Certificate No.	08-4420
Expiration Date	September 2017

TESTED SUSPECTED ASBESTOS CONTAINING MATERIALS

(Bold type = Asbestos Containing Materials (> 0.1%))

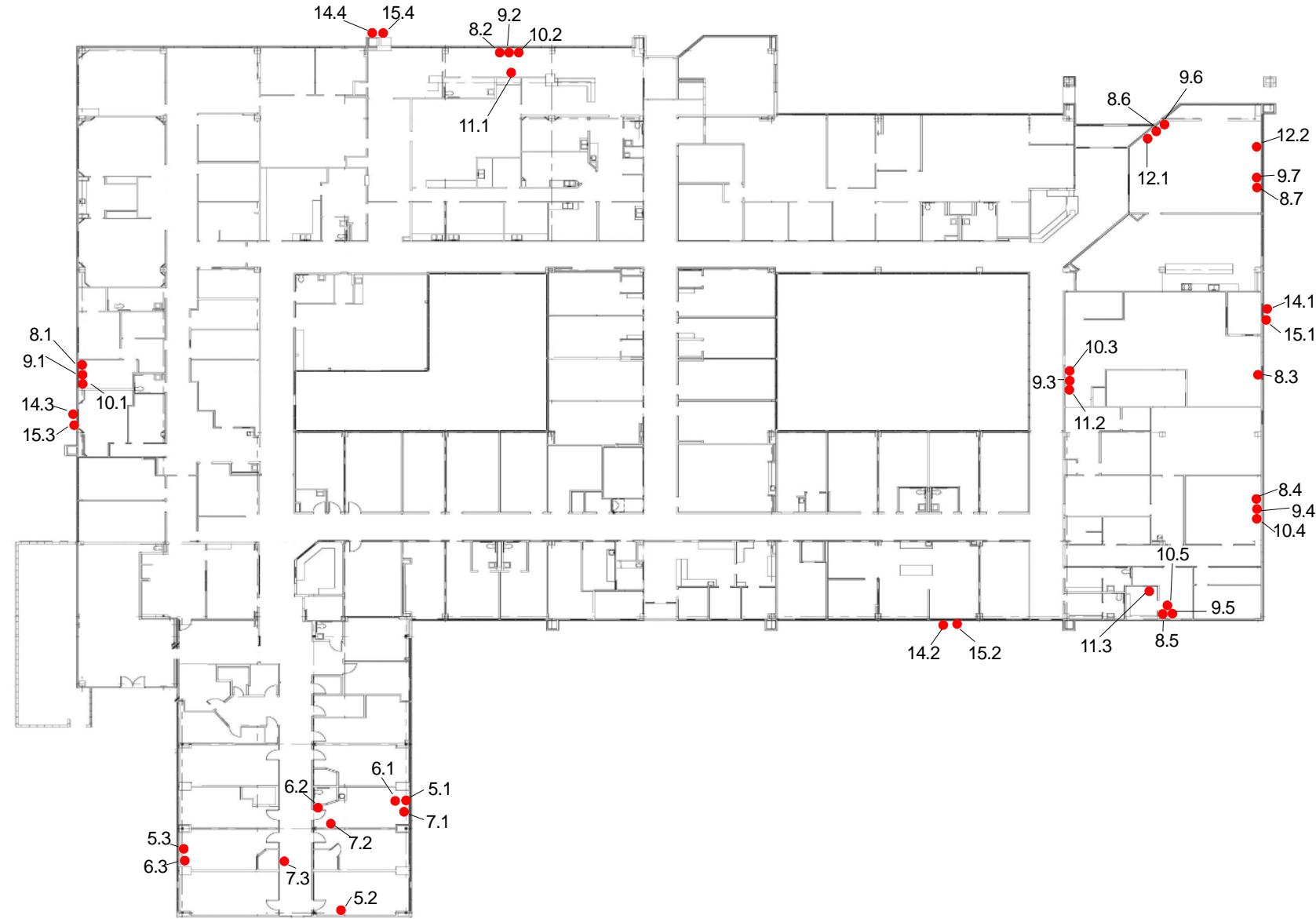
Material (Classification)	Location of Material (Sample No.'s)	Condition	Friable Yes/No	Quantity, NESHAP Category, (OSHA Class)	Results Recommendations
Granular Roofing (gray), Tar (black), Foam Insulation w/ Stones (cream, white) (M)	White roof over original building (1.1-1.5)	NA	NA	NA	Roofing = ND
Tar w/ Stones (black), Foam Insulation w/ Stones (cream, white) (M)	Gray roof on East Side (2.1, 2.2)	NA	NA	NA	Roofing = ND
Tar (black), Foam Insulation w/ Stones (cream, white) (M)	Roofing penetrations (3.1, 3.2, 3.3)	NA	NA	NA	Mastic = ND
Tar w/ Stones (black), Foam Insulation w/ Stones (cream, white) (M)	Roof over new wing (SW) (4.1, 4.2, 43)	NA	NA	NA	Roofing = ND
Drywall (white), Joint Compound (white), Tape (cream), Texture (white), Paint (white) (M)	Interior Drywall on New wing Perimeter walls Rooms 366, 369 (5.1, 5.2)	NA	NA	NA	Drywall System = ND JC = ND Texture = ND

Material (Classification)	Location of Material (Sample No.'s)	Condition	Friable Yes/No	Quantity, NESHAP Category, (OSHA Class)	Results Recommendations
Ceiling Tile (gray/white) (M)	New Wing Rooms 309, 366, 369 (6.1, 6.2, 6.3)	NA	NA	NA	Tile = ND
Joint Compound (white), Texture 1 (white), Texture 2 w/ Paint (white), Tape (cream), Wallcovering (white), Drywall (white) (M)	Interior Demising Walls Rooms 309, 366, 369 (7.1, 7.2, 7.3)	NA	NA	NA	JC = ND Drywall system = ND Texture 1 = ND Texture 2 = ND Wallcovering = ND
Drywall (white), Texture 1 (tan), Texture 2 (white), Paint (off-white) (M)	Original Building, Perimeter walls (8.1-8.7)	NA	NA	NA	Drywall System = ND
Fireproofing (tan) (M)	Original building (9.1-9.7)	NA	NA	NA	Fireproofing = ND
Ceiling Tile (gray/white) (M)	Original building (10.1-10.5)	NA	NA	NA	Tile = ND

Material (Classification)	Location of Material (Sample No.'s)	Condition	Friable Yes/No	Quantity, NESHAP Category, (OSHA Class)	Results Recommendations
Drywall system, Texture 1 (white), Texture 2 (tan), Drywall (white) (M)	Original building, interior demising walls, Rooms 299, 102 & 105 (11.1, 11.2, 11.3)	NA	NA	NYD RACM OSHA Class II	Texture 1 = ND Texture 2 = 1% Chrysotile Drywall = ND Remove as Class 2, RACM. Dispose of as non-RCRA Hazardous Waste, Friable >1%
Ceiling Tile (fiberglass yellow/white) (M)	Room 102 (12.1, 12.2)	NA	NA	NA	Tile = ND
HVAC Tape (white), Mastic (white) (M)	Roof (13.1, 13.2, 13.3)	NA	NA	NA	Tape = ND Mastic = ND
Transite® (gray) (M)	Exterior siding under mastic and stones (14.1-14.4)	NA	NA	NYD Category 2 OSHA Class II	Transite® = 35% Chrysotile Remove as a Class 2 material. Dispose as asbestos waste non-Friable, >1% ACM

Material (Classification)	Location of Material (Sample No.'s)	Condition	Friable Yes/No	Quantity, NESHAP Category, (OSHA Class)	Results Recommendations
Mastic (beige) w/ Large Stones (gray) (M)	Exterior siding over Transite® (15.1-15.4)	NA	NA	NA	Mastic = ND

NA = Not Applicable, ND = Non-Detect, NYD = not yet determined, SF = Square Feet, S = Surfacing, M = Miscellaneous, PACM = Presumed Asbestos-Containing Material, RACM = Regulated Asbestos-Containing Material, ACCM = Asbestos-Containing Construction Material, Cat. I = Category I, Non-friable Asbestos-Containing Material, Cat. II= Category II, Non-friable Asbestos-Containing Material, * Inseparable, Positive By Association, Unclassified = disturbance of ACCM does not have an OSHA Class designation







NVLAP LAB CODE 500097-0



Aerobiology Laboratory Associates, Inc.
2228 W Northern Ave., Suite B-110
Phoenix, AZ 85021
(602) 441-3700
www.aerobiology.net

Certificate of Analysis

Project Name: Mendo. CA. PH Roof

Project ID: 17005536

Attn: Chip Prokop

Date Collected: 02/23/17
Date Received: 02/28/17
Date Analyzed: 03/01/17
Date Reported: 03/02/17
Job ID:

Test requested:
3002 - Asbestos in Bulk Samples
Method:
EPA-600/R-93/116: Method for the Determination of Asbestos in Bulk Building Materials

		Asbestos				Non-Asbestos		
Client	Sample Identification Lab Sample Number	Physical Description of Sample/Layer	Homogeneous (Y/N)	Layer Percentage	Asbestos Detected	Asbestos Percentage	Non-Fibrous Material Percentage	Matrix Material Composition
R1.1	17005536-001-A	Gray Granular Compound	N	15	ND		2	98
	17005536-001-B	Cream Foamy Insulation W/White Coating and Large Stones	N	85	ND			FOAM,Q
R1.2	17005536-002-A	Black Tar W/Stones	N	10	ND			100
	17005536-002-B	Cream Foamy Insulation W/White Coating and Large Stones	N	90	ND			100
R1.3	17005536-003-A	Black Tar W/Stones	N	10	ND			TAR
	17005536-003-B	Cream Foamy Insulation W/White Coating and Large Stones	N	90	ND			100
R1.4	17005536-004-A	Cream Foamy Insulation W/Large Stones	N	100	ND			FOAM,Q
R1.5	17005536-005-A	Black Tar	N	5	ND		20	TAR,CELL
	17005536-005-B	Cream Foamy Insulation W/White Coating and Large Stones	N	95	ND			100
								FOAM,Q

A Amosite
AC Actinolite
AN Anthophyllite
CHRY Chrysotile
CR Crocidolite
FT Fibrous Talc
TR Tremolite
Trace Less Than 1%
ND None Detected

Aaron Agajanian
Analyst

Asbestos Laboratory Supervisor

200

Q Quartz
C Carbonates
G Gypsum
M Mica
T Tar
P Perlite
B Binder
D Diatoms

CELL Cellulose
MW Mineral Wool
FBG Fiberglass
SYN Synthetic
WO Wollastonite
FT Fibrous Talc
AH Animal Hair
NAC Non-Aesthetic AC
NTR Non-Aesthetic TR



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Date Reported: 03/02/17
Job ID:

Test requested: 3002 - Asbestos in Bulk Samples

Method: EPA-600/R-93/116: Method for the Determination of Asbestos in Bulk Building Materials

		Asbestos				Non-Asbestos			
		Sample Identification	Physical Description of Sample/Layer	Homogeneous (Y/N)	Layer Percentage	Asbestos Detected	Asbestos Percentage	Non-Fibrous Material Percentage	Non-Fibrous Material Composition
Client	Lab Sample Number								
R2.1	17005536-006-A	Black Tar		N	5	ND		Trace	100
	17005536-006-B	Cream Foamy Insulation W/White Coating and Large Stones		N	95	ND			FOAM,Q
R2.2	17005536-007-A	Black Tar W/Stones		N	8	ND		Trace	100
	17005536-007-B	Cream Foamy Insulation W/White Coating and Large Stones		N	92	ND			FOAM,Q
R3.1	17005536-008-A	Black Tar		N	5	ND		Trace	100
	17005536-008-B	Cream Foamy Insulation W/White Coating and Large Stones		N	95	ND			FOAM,Q
R3.2	17005536-009-A	Black Tar		N	18	ND		Trace	100
	17005536-009-B	Cream Foamy Insulation W/White Coating and Large Stones		N	82	ND			FOAM,Q
R3.3	17005536-010-A	Black Tar		N	15	ND		Trace	100
	17005536-010-B	Cream Foamy Insulation W/White Coating and Large Stones		N	85	ND			FOAM,Q

Q	Quartz	CELL Cellulose
C	Carbonates	MW Mineral Wool
G	Gypsum	FBG Fiberglass
M	Mica	SYN Synthetic
T	Tar	WO Wollastonite
P	Perlite	FT Fibrous Talc
B	Binders	TR Tremolite
D	Diatoms	AH Animal Hair
		NAC Non-Aesthetic AC
		NTR Non-Asbestiform TR


Aaron Agajanian
Asbestos Laboratory Supervisor


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Analyst



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Date Reported: 03/02/17
Job ID:

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Method: EPA 600/R-93/116: Method for the Determination of Asbestos in Bulk Building Materials

		Asbestos				Non-Asbestos				
		Sample Identification	Physical Description of Sample/Layer	Homogeneous (Y/N)	Layer Percentage	Asbestos Detected	Asbestos Percentage	Non-Fibrous Material Percentage	Matrix Material Composition	
Client	Lab Sample Number	17005536-011-A	Black Tar W/Stones	N	20	ND		Trace	100	B,Q
R4.1	17005536-011-B	Cream Foamy Insulation W/White Coating and Large Stones	N	80	ND				100	FOAM,Q
R4.2	17005536-012-A	Black Tar	N	5	ND			Trace	100	B,Q
R4.3	17005536-012-B	Cream Foamy Insulation W/White Coating and Large Stones	N	95	ND				100	FOAM,Q
	17005536-013-A	Black Tar W/Stones	N	5	ND			Trace	100	TAR,Q
	17005536-013-B	Cream Foamy Insulation W/White Coating and Large Stones	N	95	ND				100	FOAM,Q
	17005536-014-A	White Texture W/White Paint	N	10	ND				100	C
	17005536-014-B	Cream Tape	N	10	ND			98	2	B
5.1	17005536-014-C	White Joint Compound	N	10	ND				100	C
	17005536-014-D	White/Tan Drywall	N	70	ND			15	85	G

Q Quartz
CELL Cellulose
C Carbonates
MW Mineral Wool
FBG Fiberglass
SYN Synthetic
M Mica
T Tar
P Perlite
FT Fibrous Talc
W Wollastonite
CR Crocidolite
TR Tremolite
AH Animal Hair
NAC Non-Aesthetic AC
NTR Non-Aesthetic TR

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Aaron Agajanian
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Certificate of Analysis

Client:

Air & Water Sciences
625 2nd Street Suite 210
Petaluma, CA 94952-5159

Attn: Chip Prokop

Project Name: Mendo. CA. PH Roof

Project ID: 17005536

Test requested:
3002 - Asbestos in Bulk Samples
Method: EPA 600/R-93/116: Method for the Determination of Asbestos in Bulk Building Materials

		Asbestos				Non-Asbestos			
		Sample Identification	Physical Description of Sample/Layer	Homogeneous (Y/N)	Layer Percentage	Asbestos Detected	Asbestos Percentage	Non-Fibrous Material Percentage	Matrix Material Composition
Client	Lab Sample Number								
6.1	17005536-015-A	Gray/White Ceiling Tile		N	100	ND		65	35 CELL,FBG,P
	17005536-016-A	White Joint Compound		N	5	ND		100	C
	17005536-016-B	White Texture		N	7	ND		100	C
7.1	17005536-016-C	White Texture W/White Paint		N	7	ND		100	C
	17005536-016-D	Cream Tape		N	10	ND		98	2 B
	17005536-016-E	Cream/White Wallcovering		N	11	ND		60	40 CELL
	17005536-016-F	White/Tan Drywall		N	60	ND		15	85 G
	17005536-017-A	White Joint Compound		N	5	ND		100	C
5.2	17005536-017-B	Cream Tape		N	7	ND		98	2 B
	17005536-017-C	White/Tan Drywall		N	88	ND		15	85 G

A Amosite
AC Actinolite
AN Anthophyllite
CHRY Chrysotile
CR Crocidolite
TR Tremolite
Trace Less Than 1%
ND None Detected

Q Quartz
C Carbonates
G Gypsum
M Mica
T Tar
P Perlite
B Binder
D Diatoms

CELL Cellulose
MW Mineral Wool
FBG Fiberglass
SYN Synthetic
WO Wollastonite
FT Fibrous Talc
AH Animal Hair
NAC Non-Aesthetic AC
NTR Non-Asbestiform TR

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Client:
Air & Water Sciences
625 2nd Street Suite 210
Petaluma, CA 94952-5159
Attn: Chip Prokop

Project Name: Mendo. CA. PH Roof
Project ID: 17005536
Attn: Chip Prokop

Date Collected: 02/23/17
Date Received: 02/28/17
Date Analyzed: 03/01/17
Date Reported: 03/02/17
Job ID:

Test requested: **3002 - Asbestos in Bulk Samples**

Method: EPA-600/R-93/116: Method for the Determination of Asbestos in Bulk Building Materials

		Asbestos				Non-Asbestos		
		Physical Description of Sample/Layer	Homogeneous (Y/N)	Layer Percentage	Asbestos Detected	Asbestos Percentage	Non-Fibrous Material Percentage	Matrix Material Composition
6.2	17005536-018-A	Gray/White Ceiling Tile	N	100	ND		65	35 CELL,FBG,P
	17005536-019-A	Cream Tape	N	7	ND		98	
	17005536-019-B	White/Tan Wallcovering	N	9	ND		60	40 CELL
7.2	17005536-019-C	White Texture W/White Paint	N	15	ND		100	C
	17005536-019-D	White Joint Compound	N	19	ND		100	C
	17005536-019-E	White/Tan Drywall	N	50	ND		15	G
6.3	17005536-020-A	Gray/White Ceiling Tile	N	100	ND		65	35 CELL,FBG,P

A Amosite **Q** Quartz
AC Actinolite **C** Carbonates
AN Anthophyllite **G** Gypsum
CHRY Chrysotile **M** Mica
CR Crocidolite **T** Tar
FT Fibrous Talc **P** Perlite
TR Tremolite **B** Binder
Trace Less Than 1% **D** Diatoms
NDR None Detected

200

Aaron Agajanian
Analyst

CELL Cellulose **MMW** Mineral Wool
FBG Fiberglass **SYN** Synthetic
WO Wollastonite **FT** Fibrous Talc
AH Animal Hair **NAC** Non-Aesthetic AC
NTR Non-Asbestiform TR



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Test requested: 3002 - Asbestos in Bulk Samples

Method: EPA-600/R-93/116: Method for the Determination of Asbestos in Bulk Building Materials

Client	Sample Identification	Physical Description of Sample/Layer	Homogeneous (Y/N)	Layer Percentage	Asbestos		Non-Asbestos	
					Asbestos Detected	Asbestos Percentage	Non-Asbestos Fiber Percentage	Non-Fibrous Material Percentage
7.3	17005536-021-A	White Joint Compound	N	5	ND			100
	17005536-021-B	Cream Tape	N	7	ND		98	2
	17005536-021-C	White Texture	N	10	ND			100
8.1	17005536-021-D	White/Tan Drywall	N	78	ND		15	85
	17005536-022-A	White/Tan Drywall W/Off White Paint	N	100	ND		15	85
9.1	17005536-023-A	Tan Semifibrous Material	Y	100	ND		12	88
	17005536-024-A	Gray/White Ceiling Tile	N	100	ND		65	35
8.2	17005536-025-A	White/Tan Drywall	N	100	ND		15	85
	9.2	Tan Semifibrous Material	Y	100	ND		12	88
10.2	17005536-026-A	Gray/White Ceiling Tile	N	100	ND		65	35
	17005536-027-A	Gray/White Ceiling Tile	N	100	ND			

Q	Quartz	CELL	Cellulose	
C	Carbonates	MW	Mineral Wool	
FGB	Gypsum	FBG	Fiberglass	
SYN	Synthetic	W	Wollastonite	
CR	Crocidolite	FT	Fibrous Talc	
TR	Tremolite	P	Pelite	
A	Amosite	B	Animal Hair	
AC	Actinolite	D	Binders	
AN	Anthophyllite	Diatoms	NAC	Non-Aesthetic Form AC
CHRY	Chrysotile		NTR	Non-Asbestiform TR
CR	Crocidolite			
FT	Fibrous Talc			
TR	Tremolite			
Trace	Less Than 1%			
ND	None Detected			

o. o. o.
Aaron Agajanian
Analyst

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Aaron Agajanian
Asbestos Laboratory Supervisor



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EPA-600/R-93/116: Method for the Determination of Asbestos in Bulk Building Materials

Client	Sample Identification	Physical Description of Sample/Layer	Homogeneous (Y/N)	Layer Percentage	Asbestos		Non-Asbestos	
					Asbestos Detected	Asbestos Percentage	Non-Asbestos Fiber Percentage	Non-Fibrous Material Percentage
8.3	17005536-028-A	White Texture W/White Paint	N	5	ND			100 C
	17005536-028-B	White/Tan Drywall	N	45	ND		15	85 G
9.3	17005536-029-C	Tan/Brown Drywall W/Tan Paint	N	50	ND		15	85 G
	17005536-029-A	Tan Semifibrous Material	Y	100	ND		12	88 G,CELL,FBG,M
10.3	17005536-030-A	Gray/White Ceiling Tile	N	100	ND		65	35 CELL,FBG,P
	17005536-031-A	White Texture	N	5	ND			100 C
11.1	17005536-031-B	White/Tan Drywall	N	95	ND		15	85 G
	17005536-032-A	White Texture W/Off White Paint	N	10	ND			100 C
11.2	17005536-032-B	White/Tan Drywall	N	90	ND		15	85 G

A Amosite
AC Actinolite
AN Anthophyllite
CHRY Chrysotile
CR Crocidolite
FT Fibrous Talc
TR Tremolite
Trace Less Than 1%
ND None Detected

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Analyst

Q Quartz
C Carbonates
G Gypsum
M Mica
T Tar
P Perlite
B Binder
D Diatoms

CELL Cellulose
MW Mineral Wool
FBG Fiberglass
SYN Synthetic
WO Wollastonite
FT Fibrous Talc
AH Animal Hair
NAC Non-Aesthetic AC
NTR Non-Aesthetic TR



NVLAP LAB CODE 500097-0



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Attn: Chip Prokop

Date Collected: 02/23/17
Date Received: 02/28/17
Date Analyzed: 03/01/17
Date Reported: 03/02/17
Job ID:

Test requested:

3002 - Asbestos in Bulk Samples

EPA-600/R-93/116: Method for the Determination of Asbestos in Bulk Building Materials

Client	Sample Identification	Physical Description of Sample/Layer	Homogeneous (Y/N)	Layer Percentage	Asbestos		Non-Asbestos				
					N	5	CHRY	1	Non-Asbestos Fiber Percentage	Non-Fibrous Material Percentage	Matrix Material Composition
11.3	17005536-033-A	Tan Texture	N	5					99	G,C	
	17005536-033-B	White/Tan Drywall	N	95	ND				15	85	G
8.4	17005536-034-A	White Texture	N	5	ND				100	C	
	17005536-034-B	Tan Texture	N	45	ND				100	G	
9.4	17005536-034-C	White/Tan Drywall	N	50	ND				15	85	G
	17005536-035-A	Tan Semifibrous Material	Y	100	ND				12	88	G,CELL,FBG,M
10.4	17005536-036-A	Gray/White Ceiling Tile	N	100	ND				65	35	CELL,FBG,P
	17005536-037-A	Tan Texture	N	5	ND				100	G	
8.5	17005536-037-B	White/Tan Drywall	N	95	ND				15	85	G
	17005536-038-A	Tan Semifibrous Material	Y	100	ND				12	88	G,CELL,FBG,M

A Amosite
AC Actinolite
AN Anthophyllite
CHRY Chrysotile
CR Crocidolite
FT Fibrous Talc
TR Tremolite
Trace Less Than 1%
ND None Detected

Q Quartz
C Carbonates
G Gypsum
M Mica
T Tar
P Perlite
B Binder
D Diatoms

CELL Cellulose
MW Mineral Wool
FBG Fiberglass
SYN Synthetic
WO Wollastonite
FT Fibrous Talc
AH Animal Hair
NAC Non-Aesthetic AC
NTR Non-Aesthetic TR

o. o. o.

Aaron Agajanian
Analyst

Aaron Agajanian
Asbestos Laboratory Supervisor



NVLAP LAB CODE 500097-0

Client:
Air & Water Sciences
625 2nd Street Suite 210
Petaluma, CA 94952-5159
Attn: Chip Prokop

Certificate of Analysis

Project Name: Mendo. CA. PH Roof

Project ID: 17005536

Test requested:
3002 - Asbestos in Bulk Samples
Method:
EPA 600/R-93/116: Method for the Determination of Asbestos in Bulk Building Materials

		Asbestos				Non-Asbestos	
Sample Identification	Physical Description of Sample/Layer	Homogeneous (Y/N)	Layer Percentage	Asbestos Detected	Asbestos Percentage	Non-Fibrous Fiber Percentage	Non-Fibrous Material Percentage
10.5	17005536-039-A	N	100	ND		65	35
8.6	17005536-040-A	N	100	ND		15	85
9.6	17005536-041-A	Y	100	ND		12	88
8.7	17005536-042-A	N	100	ND		15	85
9.7	17005536-043-A	Y	100	ND		12	88
12.1	17005536-044-A	N	100	ND		90	10
12.2	17005536-045-A	N	100	ND		90	10
	17005536-046-A	N	25	ND		98	2
R13.1	17005536-046-B	N	75	ND		Trace	100
						B,FBG	

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AN Anthophyllite
CHRY Chrysotile
CR Crocidolite
TR Tremolite
Trace Less Than 1%
ND None Detected

Aaron Agajanian
Analyst

200

Aaron Agajanian
Asbestos Laboratory Supervisor

200

Q Quartz
C Carbonates
G Gypsum
M Mica
T Tar
P Perlite
B Binder
D Diatoms

CELL Cellulose
MW Mineral Wool
FBG Fiberglass
SYN Synthetic
WO Wollastonite
FT Fibrous Talc
AH Animal Hair
NAC Non-Aesthetic AC
NTR Non-Aesthetic TR



Aerobiology Laboratory Associates, Inc.
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Phoenix, AZ 85021
(602) 441-3700
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NVLAP LAB CODE 500097-0



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Job ID:

Project Name: Mendo. CA. PH Roof

Project ID: 17005536

Attn: Chip Prokop

Test requested:

3002 - Asbestos in Bulk Samples

EPA-600/R-93/116: Method for the Determination of Asbestos in Bulk Building Materials

		Asbestos				Non-Asbestos		
		Physical Description of Sample/Layer	Homogeneous (Y/N)	Layer Percentage	Asbestos Detected	Asbestos Percentage	Non-Fibrous Material Percentage	Matrix Material Composition
R13.2	Sample Identification							CELL
	Lab Sample Number	White Tape	N	35	ND		98	2
R13.3	17005536-047-A	White Mastic	N	65	ND		Trace	100
	17005536-048-A	White Tape	N	35	ND		98	2
14.1	17005536-048-B	White Mastic	N	65	ND		Trace	100
	17005536-049-A	Gray Transite	Y	100	CHRY	35		65
14.2	17005536-050-A						65	G
14.3	17005536-051-A						Positive Stop	
14.4	17005536-052-A						Positive Stop	

A Amosite
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AN Anthophyllite
CHRY Chrysotile
CR Crocidolite
FT Fibrous Talc
TR Tremolite
Trace Less Than 1%
ND None Detected

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Aaron Agajanian
Asbestos Laboratory Supervisor

Q Quartz
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G Gypsum
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T Tar
P Perlite
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D Diatoms
CELL Cellulose
MW Mineral Wool
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WO Wollastonite
FT Fibrous Talc
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NAC Non-Aesthetic AC
NTR Non-Aesthetic TR



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Certificate of Analysis

Client:

Air & Water Sciences
625 2nd Street Suite 210
Petaluma, CA 94952-5159
Attn: Chip Prokop

Project Name: Mendo. CA. PH Roof

Project ID: 17005536

Test requested:

3002 - Asbestos in Bulk Samples

Method:

EPA-600/R-93/116: Method for the Determination of Asbestos in Bulk Building Materials

Client	Sample Identification	Physical Description of Sample/Layer	Homogeneous (Y/N)	Layer Percentage	Asbestos		Non-Asbestos	
					Asbestos Detected	Asbestos Percentage	Non-Asbestos Fiber Percentage	Non-Fibrous Material Percentage
15.1	17005536-053-A	Beige Mastic W/Large Gray Stones	N	100	ND			100
15.2	17005536-054-A	Beige Mastic W/Large Gray Stones	N	100	ND			100
15.3	17005536-055-A	Beige Mastic W/Large Gray Stones	N	100	ND			100
15.4	17005536-056-A	Beige Mastic W/Large Gray Stones	N	100	ND			100

Date Collected: 02/23/17

Date Received: 02/23/17

Date Analyzed: 03/01/17

Date Reported: 03/02/17

Job ID:

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AC Actinolite
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CHRY Chrysotile
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TR Tremolite
Trace Less Than 1%
ND None Detected

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FBG Fiberglass
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Aaron Agajanian
Asbestos Laboratory SupervisorAaron Agajanian
Analyst



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Attn: Chip Prokop

Project Name: Mendo. CA. PH Roof
Project ID: 17005536

General Notes

* ND indicates no asbestos was detected; the method detection limit is 1%.

* Trace or "<1" indicates asbestos was identified in the sample, but the concentration is less than 1%.

* All regulated asbestos minerals (i.e. chrysotile, amosite, crocidolite, anthophyllite, tremolite, and actinolite) were sought in every layer of each sample, but only those asbestos minerals detected are listed. Amosite is the common name for the asbestos variety of the minerals cummingtonite and grunerite. Crocidolite is the common name used for the asbestos variety of the mineral riebeckite.

* Tile, vinyl, foam, plastic, and fine powder samples may contain asbestos fibers of such small diameter (<0.25 microns in diameter) that these fibers cannot be detected by PLM. For such samples, more sensitive analytical methods (e.g. TEM, SEM, and XRD) are recommended if greater certainty about asbestos content is required. Semi-quantitative bulk TEM floor tile analysis is accepted under NESHPA regulations.

* These results are submitted pursuant to Aerobiology Laboratory Associates, Inc.'s current terms and conditions of sale, including the company's standard warranty and limitation of liability provisions. No responsibility or liability is assumed for the manner in which the results are used or interpreted.

* Unless notified in writing to return the samples covered by this report, Aerobiology Laboratory Associates, Inc. will store the samples for a minimum period of thirty (30) days before discarding. A shipping and handling charge will be assessed for the return of any samples.

* Aerobiology does not guarantee the results of tape lifts, microvac, wipe, and/or debris samples. Accurate analysis cannot be performed due to particle size, media used, and/or amount of material given. Analysis of these materials should be performed by a TEM. A result of ND does not indicate that the sample area does not contain asbestos. It means the analyst could not identify asbestos in the specific sample for the reasons listed above.

Notes Required by NVLAP

* This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the Federal Government.

* This test report relates only to the items tested or calibrated.

* This report is not valid unless it bears the name of a NVLAP-approved signatory.

* Any reproduction of this document must include the entire document in order for the report to be valid.

17005536

2/28/17

Page 1 of 3**Air & Water Sciences**

625 2nd Street Suite 210
Petaluma, CA 94952-5159

Sample Date: 2/23/17

Report Recipient: Chip Prokop, PE, CAC (08 0442), CIEC, CLI

Phone: (707) 769-2289 Fax: (707) 658-2031

Email: cprokop@awsciences.com / lesley@awsciences.com

becky@awsciences.com (+ Aniko or Heidi as needed)

Signature: CPSampler: Chip Prokop

Ship Date:

Via: Fed EX

Project Location/Number: Mendocino CO. PH Roof PO Number:

Job Number: 1860

Turnaround Time:	<input type="checkbox"/> 3 Hour	<input type="checkbox"/> 6 Hour	<input type="checkbox"/> 24 Hour	<input checked="" type="checkbox"/> 48 Hour	<input type="checkbox"/> 72 Hour	<input type="checkbox"/> 1 Week	<input type="checkbox"/> 2 Week			
PCM - Air										
<input type="checkbox"/> NIOSH 7400	TEM- Air	<input type="checkbox"/> 4.4 Hr TAT								
<input type="checkbox"/> w/OSHA 8hr TWA	<input type="checkbox"/> AHERA 40 CFR, part 763									
PLM - Bulk	<input type="checkbox"/> NOISH 7402									
<input checked="" type="checkbox"/> PLM EPA 600/\$-93/116 (<1%)	<input type="checkbox"/> EPA Level II									
<input type="checkbox"/> PLM EPA NOB ((<1%))	<input type="checkbox"/> ISO 10312									
POINT COUNT										
<input type="checkbox"/> 400 (<0..25%)	TEM Bulk	<input type="checkbox"/> TEM EPA NOB								
<input type="checkbox"/> 1000 (<0.1%)	<input type="checkbox"/> NYS NOB 198.4(non-friable-NY)	<input type="checkbox"/> TEM CARB 435-A (0.25% sensitivity)								
POINT COUNT w/Gravimetric	<input type="checkbox"/> Chatfield SOP	<input type="checkbox"/> TEM CARB 435-B (0.1% sensitivity)								
<input type="checkbox"/> 400 (<0.25%)	<input type="checkbox"/> TEM Mass Analysis - EPA 600 sec 2.5	<input type="checkbox"/> TEM CARB 435-B (0.1% sensitivity)								
<input type="checkbox"/> NYS 198.1 (friable in NY)	Fibers > 10 um	<input type="checkbox"/> WASTE	<input type="checkbox"/> DRINKING	<input type="checkbox"/> EPA Protocol (Semi-Quantitative)						
<input type="checkbox"/> NYS 198.6 NOB (non-friable-NY)	All Fibers Sizes	<input type="checkbox"/> WASTE	<input type="checkbox"/> DRINKING	<input type="checkbox"/> EPA Protocol (Quantitative)						
<input type="checkbox"/> NIOSH 9002 (<1%)										
Other:										

Check for Positive Stop - Identify Homogenous Group

SAMPLE ID #	Sample Description	Location Description	Volume/Area	HA# /Color	Date/Time Sampled
R1.1	Roofing	Atrium SE corner		1/white	11 AM, 2/23/17
R1.2	Roofing	Atrium NE corner		1/white	" "
R1.3	Roofing	North, center		1/white	" "
R1.4	Roofing	North East		1/white	" "
R1.5	Roofing	East		1/white	" "
R2.1	Roofing	East		2/gray	" "
R2.2	Roofing	East center		2/gray	" "
R3.1	Penetration mastic	East		3/black	" "
R3.2	Penetration mastic	North, center		3/black	" "
R3.3	Penetration mastic	center, south		3/black	" "
R4.1	Roofing	South East		4/white	" "
R4.2	Roofing	South East		4/white	" "
R4.3	Roofing	South East (retd)		4/white	" "
S-1	Dry system	Rm 366		5/white	" "
G-1	Ceiling tile	Rm 366		6/white	" "
G-1	Ceiling tile tile	Rm 366, demolition wall		6/white	" "

1. Relinquished by (client):

Date: 2/27/17

Total # Samples:

2. Relinquished by (client):

Received by:

Date/Time:

3. Relinquished by (lab):

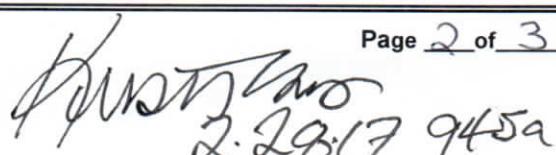
Received by:

Date/Time:

Comments/Special Instructions:

SAMPLE ID #	Sample Description	Location Description	Volume/Area	HA# / Color	Date/Time Sampled
17	5.2 Drywall System	Rm. 369		White	Ext Wall Rm 369
18	Ceiling Tile	Rm 369		"	Demolition
19	7.2 Drywall System	Rm 369			Demolizing Wall
20	5.3 Drywall System	Rm 37P			
21	6.3 Ceiling Tile	" "			
22	7.3 Drywall System	" "			Demolizing Wall
23	8.1 Drywall System	Rm 247A		White	Exterior
24	9.1 Fireproofing	" "		Gray	
25	10.1 Ceiling Tile	" "		white/gray	
26	11.1 Drywall System	" "		white	Demolizing Wall
27	8.2 Drywall System	Waiting Rm		Brown	Exterior
28	9.2 Fireproofing	" "		Gray	
29	10.2 Ceiling Tile	" "		white/gray	
30	8.3 Drywall	Rm 105			
31	9.3 Fireproofing	" "			
32	10.3 Ceiling Tile	" "			
33	11.1 Drywall System	North Waiting		Brown/white	Demolizing Wall
34	11.2 "	Rm 105		" "	
35	11.3 "	Rm 102		" "	
36	8.4 Drywall System	Rm 114A			
37	9.4 Fireproofing	" "			
38	10.4 Ceiling Tile	" "			
39	8.5 Drywall System	Rm 121			
40	9.5 Fireproofing	" "			
41	10.5 Ceiling Tile	" "			
42	8.6 Drywall System	Rm 102			
43	9.6 Fireproofing	Rm 102			
44	8.7 Drywall System	" "			
45	9.7 Fireproofing	" "			
46	12.1 Ceiling Tile	" "			
47	12.2 Ceiling Tile	" "			
48	R13.1 HVAC Tape + Mastic Roof - North				
49	R13.2 "	" " "	"		- Middle
50	R13.3 "	" " "	"		- SB
51	14.1 Transite	East			
52	14.2 "	South			
	14.3 "	West			
	14.4 "	North			

Comments/Special Instructions:



2.28.17 945a

