

MICRO ANALYTICAL LABORATORIES, INC.

TEM AIRBORNE ASBESTOS ANALYSIS



1023
 Terracon Consultants, Inc.
 1466 66th Street
 Emeryville, CA 94608

PROJECT:
JOB NO. R1147447
DEMO / ABATEMENT, DVC
PLEASANT HILL

Micro Log In **203160**
 Total Samples 2
 Date Sampled 03/04/2015
 Date Received 03/05/2015
 Date Analyzed 03/05/2015

SAMPLE INFORMATION	ASBESTOS STRUCTURE COUNT	CALCULATED ASBESTOS STRUCTURE CONCENTRATION			
CLIENT ID <div style="border: 1px solid black; padding: 2px; margin: 5px 0;">R1147447-030415-P3</div> MICRO ID 203160-01 Time 425 LPM 4.30 Liters 1827.5	ASBESTOS TYPE CHRYSOTILE <input style="width: 30px; text-align: center;" type="text" value="1"/> GRUNERITE (AMOSITE) <input style="width: 30px; text-align: center;" type="text" value="0"/> RIEBECKITE (CROCIDOLITE) <input style="width: 30px; text-align: center;" type="text" value="0"/> TREMOLITE <input style="width: 30px; text-align: center;" type="text" value="0"/> ACTINOLITE <input style="width: 30px; text-align: center;" type="text" value="0"/> ANTHOPHYLLITE <input style="width: 30px; text-align: center;" type="text" value="0"/> TOTAL ASBESTOS <input style="width: 30px; text-align: center;" type="text" value="1"/>	Str. per mm² <div style="border: 1px solid black; padding: 5px; width: 100px; margin: 0 auto;">19</div>		Str. per cc <div style="border: 1px solid black; padding: 5px; width: 100px; margin: 0 auto;">0.0041</div>	
DESCRIPTION CB MAIN ENTRANCE / LOBBY DEMO & ABATEMENT (REANALYSIS OF PCM 203151-03)		Asbestos Structures Subdivided By Length			
		Length	No.	S/mm ²	S/cc
		0.5 - 5 μm	1	19.0	0.0041
		≥ 5 μm	0	< 19.0	< 0.0041

COMMENTS
 ASBESTOS IDENTIFIED AS CHRYSOTILE

Total Asbestos	Grid Squares	Field Filter Data		Analytical Sensitivity	Operating Parameters
1	5	Type	MCE	0.0041 Str. per cc	TEM Magnification 15,000-20,000
Grid Square Area	0.0103 mm ²	Diameter	25 mm	Quantitation Limit	SAED Photo No. / ID
Area Analyzed	0.0515 mm ²	Collection Area	385 mm ²	0.0151 Str. per cc	

Technical Supervisor: Frank Raviola, M.S. 3/5/2015 Analyst: FPR
 Date Reported

Micro Analytical Laboratories, Inc. is accredited for airborne asbestos analysis under NVLAP Lab Code 101872-0. NVLAP accreditation is limited to laboratory analyses. Analyses follow the analytical procedures of the U.S. EPA's "Interim Transmission Electron Microscopy Method" (1987), 40 CFR Part 763, Appendix A to Subpart E. Sampling parameters may differ from the AHERA method. Micro Analytical Laboratories, Inc. is not responsible for data collected by non-laboratory personnel. Results reported in both "Structures per cc" and "Structures per mm²" depend on the volume of air samples as measured by non-laboratory personnel., and are not covered by our NVLAP accreditation. Concentrations and limits expressed in "Structures per mm²" are applicable only to samples with volumes of 1199 or more liters (AHERA Method, 1987). Variability due to different airborne fiber distributions, whether on different portions of the same filter or from different filters from the same sampled area, may be significant. Analytical sensitivity is the airborne concentration represented by each asbestos structure counted in the area analyzed; it is not the same as the detection limit. Specific characterization of non-asbestos particles is not applicable to this analysis. This report must not be used to claim product endorsement by NIST or any other U.S. Government agency. Unless otherwise indicated on this report, all required Quality Control samples have been determined to be in control prior to releasing these analytical results. Duplicate QC samples have lower analytical sensitivities. Unless otherwise stated in this report, all samples were received in acceptable condition for analysis. Note: due to software limitations, the number of reported significant figures does not necessarily reflect the uncertainty of the analysis. This report shall not be reproduced except in full without the approval of Micro Analytical Laboratories, Inc., and pertains only to the samples analyzed.

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Micro Log In **203160**
 Total Samples **2**
 Date Sampled **03/04/2015**
 Date Received **03/05/2015**
 Date Analyzed **03/05/2015**

SAMPLE INFORMATION	ASBESTOS STRUCTURE COUNT	CALCULATED ASBESTOS STRUCTURE CONCENTRATION					
CLIENT ID	ASBESTOS TYPE	Str. per mm ²	Str. per cc				
R1147447-030415-P4	CHRYSTOLE 2	39	0.0082				
MICRO ID 203160-02	GRUNERITE (AMOSITE) 0						
Time 425	RIEBECKITE (CROCIDOLITE) 0						
LPM 4.30	TREMOLITE 0						
Liters 1827.5	ACTINOLITE 0						
DESCRIPTION	ANTHOPHYLLITE 0	Asbestos Structures Subdivided By Length					
CB MEDIA SUCS DEMO & ABATEMENT (REANALYSIS OF PCM 203151-04)	TOTAL ASBESTOS 2	Length	No.	S/mm²	S/cc		
		0.5 - 5 μm	2	39.0	0.0082		
		≥ 5 μm	0	< 19.0	< 0.0041		
COMMENTS ASBESTOS IDENTIFIED AS CHRYSTOLE							
Total Asbestos	Grid Squares	Field Filter Data		Analytical Sensitivity		Operating Parameters	
2	5	Type	MCE	0.0041	Str. per cc		TEM Magnification 15,000-20,000
Grid Square Area	0.0103 mm ²	Diameter	25 mm	Quantitation Limit		SAED Photo No. / ID	
Area Analyzed	0.0515 mm ²	Collection Area	385 mm ²	0.0151	Str. per cc		

Technical Supervisor: _____

Frank Ravola, M.S.

3/5/2015

Date Reported

Analyst: _____

FPR

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Tom Alcott
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RGA ENVIRONMENTAL

PM - S. Steiner
Steff@rgaenv.com
fax: 510.899.7051

PM - K. Schroeter
karin@rgaenv.com
fax: 510.899.7063

PM - K. Pilgrim
ken@rgaenv.com
fax: 510.899.7053

PM - T. Katchee
tedd@rgaenv.com
fax: 510.899.7070

PM - B. Gils
bob@rgaenv.com
fax: 510.899.7050

PM - M. Bryant
marlin.bryant@rgaenv.com
fax: 510.899.7062

PCM AIR SAMPLE DATA SHEET

* PCM Analysis
* NIOSH 7400A

SAMPLE ID CODE

Job Code - mmddyy - Sample Type - Sample # (11422-022405-P-1)

Job Code: Numeric Code from RGA Project #
mmddyy: month day year (022405)

Sample Type: A-Area, P-Perimeter, B-Baseline, C-Clearance, BL-Blank Sample #: 1, 2, 3, ...

Project Name/Address/Building No.: Demo/abatement, DVC, Pleasant Hill

RGA Project #: R1147447 Sampled By: N. Alcott Sampling Date: 3/4/15

Sample(s) Sent To: RGA EMSL Other: MAC TAT: Rush 24Hrs 3-5 Days

ANALYZED BY RGA (NAME): _____ DATE: _____

FAX OR E-MAIL REPORT TO: SEE ABOVE PROJECT MANAGER (PM)

***ADDITIONAL REPORT RECIPIENT(S): _____ ***

RUSH!

SAMPLE ID: <u>R1147447-030415-P1</u>	TIME ON: <u>0720</u> TIME OFF: <u>1435</u>
SAMPLE LOCATION <u>Room</u>	FLOW RATES: <u>4.3</u> (LPM)
WORK ACTIVITY: <u>Demo/abatement</u>	TOTAL MINUTES: <u>435</u> VOLUME: <u>1870.5</u> (L)
	Number of Fibers _____ Number of Fields _____
	AIRBORNE FIBER CONC. = _____ fibers/cc

SAMPLE ID: <u>R1147447-030415-P2</u>	TIME ON: <u>0721</u> TIME OFF: <u>1436</u>
SAMPLE LOCATION <u>MAIN NAM DISCH.</u>	FLOW RATES: <u>4.3</u> (LPM)
WORK ACTIVITY: <u>Demo/abatement</u>	TOTAL MINUTES: <u>435</u> VOLUME: <u>1870.5</u> (L)
	Number of Fibers _____ Number of Fields _____
	AIRBORNE FIBER CONC. = _____ fibers/cc

SAMPLE ID: <u>R1147447-030415-P3</u>	TIME ON: <u>0735</u> TIME OFF: <u>1440</u>
SAMPLE LOCATION <u>CB Main entrance/lobby (lib)</u>	FLOW RATES: <u>4.3</u> (LPM)
WORK ACTIVITY: <u>Demo/abatement</u>	TOTAL MINUTES: <u>425</u> VOLUME: <u>1827.5</u> (L)
	Number of Fibers _____ Number of Fields _____
	AIRBORNE FIBER CONC. = _____ fibers/cc

SAMPLE ID: <u>R1147447-030415-P4</u>	TIME ON: <u>0736</u> TIME OFF: <u>1441</u>
SAMPLE LOCATION <u>CB - Media Rm.</u>	FLOW RATES: <u>4.3</u> (LPM)
WORK ACTIVITY: <u>Demo/abatement</u>	TOTAL MINUTES: <u>425</u> VOLUME: <u>1827.5</u> (L)
	Number of Fibers _____ Number of Fields _____
	AIRBORNE FIBER CONC. = _____ fibers/cc

SAMPLE ID: _____	TIME ON: _____ TIME OFF: _____
SAMPLE LOCATION _____	FLOW RATES: _____ (LPM)
WORK ACTIVITY: _____	TOTAL MINUTES: _____ VOLUME: _____ (L)
	Number of Fibers _____ Number of Fields _____
	AIRBORNE FIBER CONC. = _____ fibers/cc

Relinquished By: N. Alcott Signature: [Signature] Date/Time: 3/4/15
 Received By: Tom Smiley Signature: [Signature] Date/Time: 3/5/2015
 Relinquished By: _____ Signature: _____ Date/Time: _____
 Received By: _____ Signature: _____ Date/Time: _____