Health Science Associates

TECHNICAL AND ADVISORY SERVICES • ENVIRONMENTAL HEALTH AND SAFETY

Limited Indoor Air Quality Survey of Student Services (SSV) Building

Performed at

Antelope Valley College
3041 West Avenue K
Lancaster, California 93536-5426

Performed on June 16 and 29, 2011

Submitted To

Terry Cleveland
Antelope Valley College
3041 West Avenue K
Lancaster, California 93536-5426

HSA Project Number 110407LA

Report Date

August 8, 2011

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TABLE OF CONTENTS

1.0 INTRODUCTION

1.1 On June 16 and 29, 2011, Health Science Associates (HSA) performed an Industrial Hygiene indoor air quality (IAQ) survey at Antelope Valley College, 3041 West Avenue K, Lancaster, California. Sampling and evaluation was performed by Howard J. Ozar, Certified Industrial Hygienist (CIH).

1.2 The purpose of this survey was to conduct a limited IAQ investigation of the Student Services (SSV) building lobby and two adjoining offices.

1.3 The IAQ air sampling included total fungal spores (air and surface), particulate characterization, and common IAQ assessment parameters, such as, carbon monoxide (CO), carbon dioxide (CO_2), temperature (in degrees °F), and relative humidity (in percent %).

1.4 The monitoring results were then evaluated and compared with American Society of Heating, Refrigerating, and Air-Conditioning Engineers (ASHRAE) standards and indoor air quality guidelines.

2.0 DESCRIPTIONS AND OBSERVATIONS

2.1 The office employees perceived that an abundance of particulate was present on their desks. They reportedly felt that the particulate was responsible for their symptoms of common allergies. They also had concerns related to fungal spore exposure and attributed symptoms to mold from observed ceiling stains and the known history of water leaks in the building.

2.2 During the site visit HSA met with the campus representatives to discuss the IAQ survey and to establish times, dates, and locations of offices where employees were detecting the described issues. HSA inspected the offices and layout of the building, inside and outside, and the building's position in relation to other campus facilities.

2.3 As part of our sampling strategy, HSA measured:

2.3.1 Typical IAQ assessment parameters, included CO, CO_2, temperature, and relative humidity in the lobby and then outdoors for comparison;

2.3.2 Airborne total fungal spores in offices SSV-187 and SSV-191, both of which have some water damaged wall components, and in the lobby;

2.3.3 Bulk tape lift samples of particulate for material characterization from:

2.3.3.1 Desks of employees and of the heating, ventilating, and air conditioning (HVAC) system air intake (plenum); and

2.3.3.2 Analysis of an adjacent construction site where foam insulation was cut using power saws for comparison with white specks seen lofting in the wind outside and inside of the administration building.

3.0 METHODS

3.1 Sampling Methodology

The sampling and analytical methodologies employed followed NIOSH, OSHA, EPA, and/or other professionally accepted sampling methods. The specific method, collection media, sampling flow rate, etc., are reported on the laboratory reports and sampling data sheets, which include chain-of-custody signatures.

3.2 Laboratory

3.2.1 After collection in the field the samples were transferred following chain-of-custody procedures to LA Testing's Garden Grove and Pasadena, California, Industrial Hygiene and Environmental laboratories for analysis. The laboratories' maintain accreditation with the following organizations and programs:

3.2.1.1 American Industrial Hygiene Association (AIHA);

3.2.1.2 National Institute of Standards and Technology (NIST);

3.2.1.3 California Department of Health Services, Environmental Laboratory Accreditation Program (ELAP);

3.2.1.4 AIHA's Environmental Lead Laboratory Accreditation Program (ELLAP); and

3.2.1.5 AIHA's Environmental Microbiology Laboratory Accreditation Program (EMLAP).

3.2.2 The laboratory report(s) and sampling data/chain-of-custody sheets are provided in Appendix I - Laboratory Report(s).

3.3 Direct Reading Instrumentation

3.3.1 Direct reading instruments were used and calibrated pursuant to the manufacture's requirements. These devices were placed in area locations to represent general work area environmental exposures.

3.3.2 Instrument sampling data and calibration(s) are provided in Appendix II - Instrument(s).

3.4 Fungal Air

Total spore air samples were collected using Air-O-Cell cassettes sampled at a flow rate of 15 liters per minute (LPM) for five minutes. A measurement of total spore count will provide the relative numbers and types of spores in the building's air measured in spores/cubic meter (s/m^3)

4.0 STANDARDS AND GUIDELINES

4.1 IAQ Standards and Guidelines

4.1.1 The following table represents the common IAQ parameters that are sometimes evaluated. Levels that exceed the trigger concentrations means to take note and investigate further; generally requiring a follow-up survey.

Test	Typical Indoor Concentration	Trigger Concentration
Bioaerosols	Varies	3-4 Times Greater than Other Spaces or Outdoors
Carbon Dioxide	400-1000 ppm	800 ppm 700 ppm +Background
Carbon Monoxide	1-3 ppm	>5 ppm
Formaldehyde	0.01-0.05 ppm	>0.05 ppm
Moisture	Varies	40- 60 %
Odors	None	Detectable for Extended Time
VOCs	<300 $\mu g/m^3$ 1-2 ppm	300 $\mu g/m^3$ to 3000 $\mu g/m^3$ Depending on Chemicals
Ref. - IAQ and HVAC Workbook, 4th Edition, Revised and Updated 2001, D.Jeff Burton, CIH,PE, CSP, ISBN 1-883992-16-8, Contaminant Concentration Checklist, p. A-27		

Table: Indoor Air Quality Typical and Trigger Levels

4.1.2 ASHRAE Standard 55-2004, Thermal Environmental Conditions for Human Occupancy defines indoor thermal environmental factors and personal factors (clothing and activity) that are acceptable to the majority of occupants within an office space. The standard does not take into

account air quality (odor and chemicals) that may also affect comfort in the space. The factors that describe these conditions include: Metabolic rate; clothing; air and radiant temperatures; air speed (less then 40 ft/min.); and relative humidity.

The following ranges of temperatures are intended to provide comfort for 80% of the occupants: Warm weather: 74-83; Cool weather: 67-79 (dressed appropriately). Humidity levels vary with temperature and range from 10% to <80%.

4.1.3 ASHRAE Standard 62 - 1999, "Ventilation for Acceptable Indoor Air Quality"[1]

4.1.3.1 Ventilation rate procedure - Acceptable air quality is achieved by providing ventilation air of the specified quality and quantity to the space.

4.1.3.2 Indoor air quality procedure - Acceptable air quality is achieved with the space by controlling known and specifiable contaminants.

4.2 Airborne Fungi

4.2.1.1 Air - As a general rule, indoor fungal contamination is usually indicated when a significant difference is demonstrated between indoor and outdoor airborne spore concentrations or types of spore genera or species. The inside concentrations exceeds outside by a factor of 3-4 times, this could be an indicator of bioamplification.

5.0 SURVEY DATA AND RESULTS

5.1 Sample data and results are reported in Tables I-IV. The laboratory reports are provided in Appendix I - Laboratory Report(s). The building in relation to other campus buildings and specific locations within SSV are depicted in maps, which are provided in Appendix III - Figures. The air and surface sample locations and other significant locations are depicted in photographs, which are provided in Appendix IV - Photographs.

5.2 The fungal air sampling results inside ranged between 229-1,110 and 190-448 spores per cubic meters (m^3) as compared to 5940-9448 and 1236-1445 spores/m^3 outdoors. This is an average factor of 8 times difference (lower) inside as

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[1]American Society of Heating, Refrigerating, and Air-Conditioning Engineers, "Ventilation for Acceptable Indoor Air Quality", ASHRAE 62-1999, Atlanta, GA, *American Society of Heating, Refrigerating, and Air-Conditioning Engineers*, 1999.

compared to outside. The evaluation of the results suggest that the detected indoor levels were normal. In addition, rank order comparison between the indoor and outdoor fungal genera identified in the samples were comparable and consistent.

5.3 The tape lift samples collected from the HVAC air intake room were nominally 90% mineral in nature and when compared to tape lift samples in the grad office, mineral content was nominally 35-80% mineral. The conclusion is that outdoor dust is filtered by the HVAC system, reducing the dust burden, but some in filtration can occur through cracks in the windows or walls. Samples collected from the top surfaces of desks in the lobby were nominally 30% mineral mixed in with synthetics and cellulose (see Table IV microscopic photographs).

5.4 The temperature and relative humidity measurements were within normal limits for acceptability as suggested by the ASHRAE Standard 55-2004, Thermal Environmental Conditions.

5.5 The carbon dioxide concentrations in the lobby ranged from 688 parts per million (ppm) to 1,005 ppm. The average was 772 ppm. Outdoor concentrations ranged from 424 to 478 ppm. We compared indoor and outdoor carbon dioxide concentrations to determine if indoor spaces are adequately ventilated. Results indicate slightly elevated carbon dioxide levels but, they are acceptable. Note that there were many students in the lobby for resgistration.

5.6 Carbon monoxide at any level indoors is not acceptable and should not be detected. Our measurements did not detect any levels of carbon monoxide.

6.0 DISCUSSION AND CONCLUSIONS

6.1 The visual inspection along with our queries of campus representatives suggest "desert dust" infiltration from outdoors can account for employee concerns of excessive dust found at their work stations and may contribute to irritation of eyes and nose. The following are HSA's supporting findings.

6.1.1 Samples of foam from an adjacent construction site matched whites specks found just outside and inside offices of the administration building. The conclusion is that the HVAC systems on campus can be bringing in outside particulate. The tape lift/bulk samples of white specked materials were provided by the campus representative.

6.1.2 The visual inspection of the SSV air handlers showed a significant amount of dust accumulation. The conclusion is that the outside air is heavily laden with dust "at times" and this dust is making it's way into the HVAC system and eventually settling out on employee desks. See supporting photographs.

6.1.3 Dust on window sills in the grad office were observed and appeared as through it was coming in from outdoors through cracks in the wall or windows. See supporting photographs. Samples collected supports this based on the mineral nature of the dust.

6.1.4 HSA recommends cleaning of the HVAC package units and possibly implementing improved methods to filter out dust in the fresh make-up air supply.

6.2 Fibrous materials found on employee desks are questionable and may or may not be falling from supply HVAC registers. The following are HSA's supporting findings:

6.2.1 Sources of fibrous particles observed on desks in the lobby are likely from the HVAC system. In general, HVAC systems have duct lining made of fibrous materials. See supporting bulk dust sampling results. It is recommended to have an HVAC technician inspect the HVAC supply air ducts for deteriorated lining material which may account for the fibrous material found.

6.2.2 Return air registers above desks in the lobby if jarred from building movement and/or significant air pressure "shocks" could conceivably dislodge debris from registers. See supporting bulk dust sampling results. It is recommended to have an HVAC technician inspect the HVAC return air duct registers and area above if an open plenum exists which may account for the fibrous material found.

6.2.3 HSA recommends cleaning/repair of the HVAC system if loose insulation and or/other debris is identified during an inspection by an HVAC technician.

6.3 It was observed that one of the HVAC units on the roof of the SSV building was covered with canvas, and motors and other assembly parts were laying besides the unit. It was eluded to from campus representatives that the unit leaked when it rained. This may account for reported water leaks which employees became concerned about and may account for allergy symptoms reported by employees. See supporting photographs of HVAC unit covered by a tarp.

6.4 HSA recommends repair of the HVAC unit and preliminary inspection for signs of mold growth.

6.5 There were two offices where employees were concerned about mold from water leaks which deteriorated the base of the exterior facing walls. These offices were SSV-187 and SSV-191. SSV-187 is adjacent to the court yard. See supporting photograph.

6.5.1 Air samples for total fungal spores were collected from each of these offices. Results were within normally acceptable levels and did not show any significant increase in spore levels indicative of bio-amplification.

6.5.2 Both offices do have physical deterioration of the building material, which should be repaired/replaced. If visible mold is observed then remediation of the materials, plus an additional two feet is recommended. A fungal remediation contractor may be able to assist in determination of extent of fungal growth, if any is present.

6.6 HSA recommends the repair of rust holes in metal building exterior. Also confirm proper excavation of courtyard and drainage.

6.7 Air samples for total fungal spores were collected from the lobby area. Results were within normally acceptable levels and did not show any significant increase in spore levels indicative of bio-amplification. See supporting air sampling results.

6.8 General observations made of the HVAC air handler rooms indicated that the return air plenum were extremely dusty. HSA recommending HVAC cleaning. (See supporting photographs). Consider M&O logging of in house maintenance to monitor maintenance needs.

6.9 As an indicator of the need to introduce additional fresh air into the lobby, carbon dioxide levels were slightly above normal, although still within guidelines. See monitoring results. It is recommended to increase the amount of fresh air being provided during high occupancy days/weeks such as registration etc. al. to reduce carbon dioxide levels.

7.0 This report was prepared for use by Antelope Valley College in evaluating the subject building. The information contained within this report is as factual as possible and the opinions related herein are based on HSA's experience in similar investigations. No warranty, therefore, is made to any persons other than Antelope Valley College regarding the conclusions or recommendations included within this report. HSA will not release copies to a third party without prior written consent of Antelope Valley College.

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Table I - Air Sampling Results for Carbon Dioxide, Carbon Monoxide, Temperature, and Relative Humidity (1st Visit - 16th)

Antelope Valley College
3041 West Avenue K
Lancaster, California 93536-5426
June 16 and 29, 2011

Parameters	Statistics	Lobby	Outdoors	ASHRAE
Instrument		TSI IAQ-Calc	TSI IAQ-Calc	
Sample Number		11061613	11061614	
Time		1339-1629 (170)	1633-1644 (11)	
Temperature (°F)	Minimum	80 4	80.2	Normal Range
	Maximum	81 8	82 9	74-83 °F
	Average	81	81.5	Warm Weather
Relative Humidity (%RH)	Minimum	37 7	37	Normal Range
	Maximum	40 2	41 6	30-70%
	Average	38.4	39.2	
Carbon Dioxide (ppm)	Minimum	688	424	Normal Range
	Maximum	1005	478	<*Bkg + 700ppm
	Average	772	449	
Carbon Monoxide (ppm)	Minimum	0	0	Normal Range
	Maximum	0	0	< 5ppm
	Average	0	0	
Evaluation	N/A	Temp.=Normal RH=Normal CO2 Elevated CO=Normal	N/A	N/A

Abbreviations: F=Fahrenheit; %=percent; ppm=parts per million; Bkg = Background; ** occurred for less than five minutes - not significant.

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Table III - Air Sampling Results for Total Fungal Spores (2nd Visit - 29th)

Antelope Valley College
3041 West Avenue K
Lancaster, California 93536-5426
June 16 and 29, 2011

Description/Locations	Office Location SSV-191	Office Location SSV-191	Outdoors (Front Lobby)	Outdoors (Front Lobby)	Field Blank
Media	Air-O-Cell	Air-O-Cell	Air-O-Cell	Air-O-Cell	Air-O-Cell
Units	(Spore/m^3)	(Spore/m^3)	(Spore/m^3)	(Spore/m^3)	(Spore/m^3)
Sample Number	11062946	11062947	11062948	11062949	11062943
Time (Min.)	1642-1647 (5)	1650-1655 (5)	1701-1706 (5)	1711-1716 (5)	
Volume (L)	75	75	75	75	
Alternaria	42		84	42	
Ascospores	42			84	
Aspergillus/Penicillium	127	53*	211	42	
Basidiospores		53*	42		
Bipolaris++					
Chaetomium	42				
Cladosporium	42		675	844	
Curvularia					
Epicoccum	13*			13*	
Fusarium					
Ganoderma					
Myxomycetes++	127	84	338	127	
Pithomyces					
Rust			13*		
Scopulariopsis					
Stachybotrys					
Torula			40*	42	
Ulocladium					
Unidentified Spores					
Botrytis	13*				
Oidium			42	42	
Stemphylium					
Total Fungi	**448**	**190**	**1445**	**1236**	**No Trace**
Hyphal Fragment	42	13*	338	84	
Insect Fragment	27*				
Pollen		42	42	169	
Rank Order (1, 2, 3...)	**Myx,Asp-Pen**	**Myx,Asp-Pen**	**Clad,Myx**	**Clad,Myx**	
Evaluation	Normal		**Control**		**N/A**
Analyst. Sensitivity 600x	42	42	42	42	
Analyst. Sensitivity 300x	13*	13*	13*	13*	
Skin Fragments (1-4)	1	1	1	1	
Fibrous Particulate (1-4)	1	1	1	1	
Background (1-5)	2	2	2	2	

Abbreviations: NA = Not Applicable; Spore/m^3 = Spores per Cubic Meter of Air; Min.=Minutes; L=Liters

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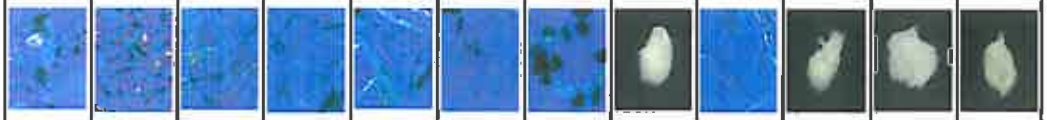
Table IV - Tape and Bulk Sampling Results for Particle Characterization (2nd Visit - 29th)

Antelope Valley College
3041 West Avenue K
Lancaster, California 93536-5426
June 16 and 29, 2011

Description/Locations	SSV-201 AH	SSV-201 AH	MS's Desk	HS's Desk	GP's Desk	Grad Top Surface of Book Shelf	Grad Horz Surface of Blinds	Outside E Wall of Admin	Inside Admin	Inside Admin	Inside Admin	Const-uction Site
Media	Tape Lift	Tape Lift	Tape Lift	Tape Lift	Tape Lift	Tape Lift	Tape Lift	White Specks	White Specks	White Specks	White Specks	Foam
Units	%	%	%	%	%	%	%	%	%	%	%	%
Sample Number	11062950	11062951	11062952	11062953	11062954	11062955	11062956	11062957	11062958	11062959	11062960	11062961
Microscope Photo												
Asbestos •Total	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MMVF's •Total •Glass Fragments	ND ND	ND ND	ND ND	ND ND	ND ND	1 ND	1 ND	ND ND	1 ND	ND ND	ND ND	ND ND
Cellulose •Processed •Natural	2 ND	ND ND	15 ND	15 ND	5 ND	5 2	2 ND	ND ND	10 ND	10 ND	2 ND	ND ND
Synthetics •Total •Styrofoam	10	5	45	40	50	35	15	90	50	45 3	10 55	90
Hair •Human •Animal	ND ND	ND ND	ND ND	ND 1	5 1	ND ND	ND ND	ND ND	1 1	ND 2	ND ND	ND ND
Biological •Skin Fragments •Insect Fragments •Dust Mites •Spider Silk •Mold •Pollen •Starch	2 ND ND ND <1 <1 ND	5 ND ND ND <1 <1 ND	10 ND ND ND <1 <1 <1	10 ND ND ND <1 ND <1	10 ND ND ND <1 ND 1	20 ND ND ND ND ND ND	2 ND ND ND ND ND ND	ND ND ND ND ND ND ND	5 3 ND ND ND ND ND	ND 5 ND ND ND ND <1	ND 5 ND ND ND ND <1	ND ND ND ND ND ND <1
Mineral •Total •Unidentified by Method	55 29	60 28	10 17	10 22	10 17	10 25	60 20	10 ND	10 19	15 19	10 18	10 ND
Evaluation	**Control Fine Dust from HVAC/Outdoors**		**Synthetics, Cellulose, Mineral**			**Synthetic**	**Mineral**	**Foam outside and inside.**				**Control**
Analyst. Sensitivity	400x	200x	100x	100x	200x	400x	100x	Stereo	100x	Stereo	Stereo	Stereo
Abbreviations: Sterer=Stereo microscope, ND=None Detected, %=Percent												

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APPENDIX I - Laboratory Report

LA Testing
11652 Knott Street Unit F5 Garden Grove, CA 92841
Phone: (714) 828-4999 Fax: (714) 828-4944 Web: Email:losalamitoslab@latesting.com

Attn: Howard Ozar
Health Science Associates
10771 Noel Street
Los Alamitos, CA 90720

EMSL Order: 331106465
Customer ID: 32HEAL56
Collected: 6/16/2011
Received: 6/17/2011
Analyzed: 6/20/2011

Proj: 110407LA / Antelope Valley College, 3041 West Avenue K, Lancaster, California 93536-5426

Test Report: Air-O - Cell(™) Analysis of Fungal Spores & Particulates by Optical Microscopy (EMSL Method 05-TP-003)

Lab Sample Number:	331106465-0004			331106465-0005			331106465-0006		
Client Sample ID:	11061619			11061620			11061621		
Volume (L):	75			75.3			75.2		
Sample Location:	SSV Office - 1 (Lobby)			SSV Office - 2 (Lobby)			SSV Office Other - 187		
Spore Types	**Raw Count**	**Count/m³**	**% of Total**	**Raw Count**	**Count/m³**	**% of Total**	**Raw Count**	**Count/m³**	**% of Total**
Alternaria	1	42	3.8	-	-	-	-	-	-
Ascospores	-	-	-	2	84	11.1	-	-	-
Aspergillus/Penicillium	1*	13*	1.2	1	42	5.6	1*	13*	3.9
Basidiospores	1	42	3.8	-	-	-	1*	13*	3.9
Bipolaris++	-	-	-	-	-	-	-	-	-
Chaetomium	-	-	-	-	-	-	-	-	-
Cladosporium	9	380	34.2	10	420	55.6	3	126	37.8
Curvularia	-	-	-	-	-	-	-	-	-
Epicoccum	-	-	-	-	-	-	-	-	-
Fusarium	-	-	-	-	-	-	-	-	-
Ganoderma	-	-	-	-	-	-	-	-	-
Myxomycetes++	14	591	53.2	3	126	16.7	4	168	50.5
Pithomyces	-	-	-	-	-	-	-	-	-
Rust	1	42	3.8	1	42	5.6	-	-	-
Scopulariopsis	-	-	-	-	-	-	-	-	-
Stachybotrys	-	-	-	-	-	-	-	-	-
Torula	-	-	-	-	-	-	-	-	-
Ulocladium	-	-	-	-	-	-	1*	13*	3.9
Unidentifiable Spores	-	-	-	1	42	5.6	-	-	-
Zygomycetes	-	-	-	-	-	-	-	-	-
Botrytis	-	-	-	-	-	-	-	-	-
Oidium	-	-	-	-	-	-	-	-	-
Total Fungi	**27**	**1110**	**100**	**18**	**756**	**100**	**10**	**333**	**100**
Hyphal Fragment	3	127	-	1	42	-	-	-	-
Insect Fragment	1	42	-	-	-	-	1*	13*	-
Pollen	4	169	-	1	42	-	2	84	-
Analyt. Sensitivity 600x	-	42	-	-	42	-	-	42	-
Analyt. Sensitivity 300x	-	13*	-	-	13*	-	-	13*	-
Skin Fragments (1-4)	-	2	-	-	2	-	-	1	-
Fibrous Particulate (1-4)	-	1	-	-	1	-	-	1	-
Background (1-5)	-	4	-	-	3	-	-	2	-

Bipolaris++ = Bipolaris/Dreschlera/Exserobilum Myxomycetes++ = Myxomycetes/Periconia/Smut

Samples analyzed by LA Testing Garden Grove, CA AIHA-LAP, LLC EMLAP 101650

High levels of background particulate can obscure spores and other particulates leading to underestimation. Background levels of 5 indicate an overloading of background particulates, prohibiting accurate detection and quantification. Present = Spores detected on overloaded samples. The detection limit is equal to one fungal spore, structure, pollen, fiber particle or insect fragment. "*" Denotes particles found at 300X. This report relates only to the samples reported and may not be reproduced, except in full, without written approval by LA Testing. Results have not been adjusted for field or laboratory blank unless otherwise noted. Samples received in good condition unless otherwise noted.

Cecil Strait, Micro Laboratory Manager
or Other Approved Signatory

For information on the fungi listed in this report please visit the Resources section at www.emsl.com

LA Testing
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Health Science Associates
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Collected: 6/16/2011
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Analyzed: 6/20/2011

Proj: 110407LA / Antelope Valley College, 3041 West Avenue K, Lancaster, California 93536-5426

Test Report: Air-O - Cell(™) Analysis of Fungal Spores & Particulates by Optical Microscopy (EMSL Method 05-TP-003)

Lab Sample Number:	331106465-0007			331106465-0008			331106465-0009		
Client Sample ID:	11061622			11061623			11061624		
Volume (L):	75.3			75.2			74.8		
Sample Location:	SSV Office Other - 187			SSV Outside (Ambient)-Main Entrance			SSV Outside (Ambient)-Main Entrance		
Spore Types	Raw Count	Count/m³	% of Total	Raw Count	Count/m³	% of Total	Raw Count	Count/m³	% of Total
Alternaria	1*	13*	5.7	3	126	1.3	1*	13*	0.2
Ascospores	3*	40*	17.5	6	253	2.7	4	169	2.9
Aspergillus/Penicillium	4*	53*	23.1	3	126	1.3	16	677	11.4
Basidiospores	2	84	36.7	21	884	9.3	11	465	7.8
Bipolaris++	-	-	-	-	-	-	1	42	0.7
Chaetomium	1*	13*	5.7	1	42	0.4	-	-	-
Cladosporium	-	-	-	149	6270	66.3	58	2450	41.2
Curvularia	-	-	-	-	-	-	-	-	-
Epicoccum	-	-	-	1	42	0.4	3*	40*	0.7
Fusarium	-	-	-	-	-	-	-	-	-
Ganoderma	-	-	-	-	-	-	-	-	-
Myxomycetes++	1*	13*	5.7	26	1090	11.5	38	1610	27.1
Pithomyces	-	-	-	-	-	-	-	-	-
Rust	-	-	-	7	295	3.1	1	42	0.7
Scopulariopsis	-	-	-	-	-	-	-	-	-
Stachybotrys	-	-	-	-	-	-	-	-	-
Torula	-	-	-	1*	13*	0.1	4*	53*	0.9
Ulocladium	-	-	-	-	-	-	3	127	2.1
Unidentifiable Spores	1*	13*	5.7	5	210	2.2	5	212	3.6
Zygomycetes	-	-	-	-	-	-	-	-	-
Botrytis	-	-	-	2	84	0.9	-	-	-
Oidium	-	-	-	1*	13*	0.1	3*	40*	0.7
Total Fungi	**13**	**229**	**100**	**226**	**9450**	**100**	**148**	**5940**	**100**
Hyphal Fragment	1*	13*	-	2	84	-	2	85	-
Insect Fragment	-	-	-	-	-	-	-	-	-
Pollen	2*	27*	-	2	84	-	1	42	-
Analyt. Sensitivity 600x	-	42	-	-	42	-	-	42	-
Analyt. Sensitivity 300x	-	13*	-	-	13*	-	-	13*	-
Skin Fragments (1-4)	-	1	-	-	1	-	-	1	-
Fibrous Particulate (1-4)	-	1	-	-	1	-	-	1	-
Background (1-5)	-	2	-	-	2	-	-	2	-

Bipolaris++ = Bipolaris/Dreschlera/Exserohilum Myxomycetes++ = Myxomycetes/Periconia/Smut

Samples analyzed by LA Testing Garden Grove, CA AIHA-LAP, LLC EMLAP 101650

High levels of background particulate can obscure spores and other particulates leading to underestimation. Background levels of 5 indicate an overloading of background particulates, prohibiting accurate detection and quantification. Present = Spores detected on overloaded samples. The detection limit is equal to one fungal spore, structure, pollen, fiber particle or insect fragment. "*" Denotes particles found at 300X. This report relates only to the samples reported and may not be reproduced, except in full, without written approval by LA Testing. Results have not been adjusted for field or laboratory blank unless otherwise noted. Samples received in good condition unless otherwise noted.

Cecil Strait

Cecil Strait, Micro Laboratory Manager
or Other Approved Signatory

For information on the fungi listed in this report please visit the Resources section at www.emsl.com

LA Testing
11652 Knott Street Unit F5 Garden Grove, CA 92841
Phone: (714) 828-4999 Fax: (714) 828-4944 Web. Email:losalamitoslab@latesting.com

Attn: Howard Ozar
Health Science Associates
10771 Noel Street
Los Alamitos, CA 90720

EMSL Order: 331106465
Customer ID: 32HEAL56
Collected: 6/16/2011
Received: 6/17/2011
Analyzed: 6/20/2011

Proj: 110407LA / Antelope Valley College, 3041 West Avenue K, Lancaster, California 93536-5426

Test Report: Air-O - Cell(™) Analysis of Fungal Spores & Particulates by Optical Microscopy (EMSL Method 05-TP-003)

Lab Sample Number:	**331106465-0010**		
Client Sample ID:	**11061625**		
Volume (L):	**0**		
Sample Location:	**Field Blank**		
Spore Types	**Raw Count**	**Count/m³**	**% of Total**
Alternaria	-	-	-
Ascospores	-	-	-
Aspergillus/Penicillium	-	-	-
Basidiospores	-	-	-
Bipolaris++	-	-	-
Chaetomium	-	-	-
Cladosporium	-	-	-
Curvularia	-	-	-
Epicoccum	-	-	-
Fusarium	-	-	-
Ganoderma	-	-	-
Myxomycetes++	-	-	-
Pithomyces	-	-	-
Rust	-	-	-
Scopulariopsis	-	-	-
Stachybotrys	-	-	-
Torula	-	-	-
Ulocladium	-	-	-
Unidentifiable Spores	-	-	-
Zygomycetes	-	-	-
Botrytis	-	-	-
Oidium	-	-	-
Total Fungi	-	**No Trace**	-
Hyphal Fragment	-	-	-
Insect Fragment	-	-	-
Pollen	-	-	-
Analyt. Sensitivity 600x	-	**0**	-
Analyt. Sensitivity 300x	-	**0***	-
Skin Fragments (1-4)	-	-	-
Fibrous Particulate (1-4)	-	-	-
Background (1-5)	-	-	-

Bipolaris++ = Bipolaris/Dreschlera/Exserohilum Myxomycetes++ = Myxomycetes/Periconia/Smut

Samples analyzed by LA Testing Garden Grove, CA AIHA-LAP, LLC EMLAP 101650

High levels of background particulate can obscure spores and other particulates leading to underestimation. Background levels of 5 indicate an overloading of background particulates, prohibiting accurate detection and quantification. Present = Spores detected on overloaded samples. The detection limit is equal to one fungal spore, structure, pollen, fiber particle or insect fragment. "*" Denotes particles found at 300X. This report relates only to the samples reported and may not be reproduced, except in full, without written approval by LA Testing. Results have not been adjusted for field or laboratory blank unless otherwise noted. Samples received in good condition unless otherwise noted.

Cecil Strait

Cecil Strait, Micro Laboratory Manager
or Other Approved Signatory

For Information on the fungi listed in this report please visit the Resources section at www.emsl.com

HSA

10771 Noel Street, Los Alamitos, CA 90720 - office 714-220-3922; fax 714-220-2081
labresults@healthscience.com

#3311064465

AIR SAMPLE DATA SHEET

TAT		
1Week	Report to: Howard J. Ozar, CIH	HSA Project No: 110407LA
	Project Mgr: H. Ozar, CIH	Ind. Hyg.: H. Ozar, CIH
	Proj. Location: Antelope Valley College, 3041 West Avenue K, Lancaster, California 93536-5426	Date: June 16, 2011
	Client Reference: Terry Cleviand, Antelope Valley College, , ,	Rotameter: BIOS Defender 510-H S/N 115109 Cal. 5/23/2011

☒ IAQ Investigation ☐ OSHA Compliance ☐ Abatement/Clearance ☐ Routine Inspection

Sample No:	Sample Type (filter, tube, badge)	Analysis Method Requested	Flow Rate (lpm)	Start Time	Stop Time	Total Mins	Total Vol. (L)	Location/Description/Remarks
11061619	Air-O-Cell, Exp 2012/01	Total Fungi ID & Enum (LAT M001)	final-cal =15	1536	1541	5	648.2 573.2 75.0	SSV Office — 1 (Lobby)
11061620	Air-O-Cell, Exp 2012/01	Total Fungi ID & Enum. (LAT M001)		1542	1547	5	723.5 648.2 75.3	SSV Office — 2 (Lobby)
11061621	Air-O-Cell, Exp 2012/01	Total Fungi ID & Enum (LAT M001)		1548	1550	5	798.7 723.5 75.2	SSV Office Other — 187
11061622	Air-O-Cell, Exp. 2012/01	Total Fungi ID & Enum. (LAT M001)		1552	1558	5	874.0 798.7 75.3	SSV Office Other — 187
11061623	Air-O-Cell, Exp. 2012/01	Total Fungi ID & Enum (LAT M001)		1605	1610	5	949.2 874.0 75.2	SSV Outside (Ambient) — Main Entrance
11061624	Air-O-Cell, Exp 2012/01	Total Fungi ID & Enum (LAT M001)	post-cal =15	1611	1616	5	1024.0 949.2 74.8	SSV Outside (Ambient) — Main Entrance

Special Instructions to Lab:

Relinquished by: Howard Ozar	Date: 6/17/11	Time:	Received by:	Date: 6/17/11	Time: 11:10AM
Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received by:	Date:	Time:

HSA

10771 Noel Street, Los Alamitos, CA 90720 - office 714-220-3922; fax 714-220-2081
labresults@healthscience.com

#331106465

AIR SAMPLE DATA SHEET

TAT		
1Week	Report to: Howard J. Ozar, CIH	HSA Project No: 110407LA
	Project Mgr: H. Ozar, CIH	Ind. Hyg.: H. Ozar, CIH
	Proj. Location: Antelope Valley College, 3041 West Avenue K, Lancaster, California 93536-5426	Date: June 16, 2011
	Client Reference: Terry Clevland, Antelope Valley College, , ,	Rotameter: BIOS Defender 510-H S/N 115109 Cal. 5/23/2011

☐ IAQ Investigation ☐ OSHA Compliance ☐ Abatement/Clearance ☐ Routine Inspection

Sample No:	Sample Type (filter, tube, badge)	Analysis Method Requested	Flow Rate (lpm)		Start Time	Stop Time	Total Mins	Total Vol. (L)	Location/Description/Remarks
11061625	Air-O-Cell, Exp. 2012/01	Total Fungi ID & Enum (LAT M001)							Field Blank

Special Instructions to Lab:

Relinquished by: Howard Ozar	Date: 6/17/11	Time:	Received by:	Date: 6/17/11	Time: 11:10AM
Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received by:	Date:	Time:

LA Testing
11652 Knott Street Unit F5 Garden Grove, CA 92841
Phone: (714) 828-4999 Fax: (714) 828-4944 Web Email:losalamitoslab@latesting.com

Attn: Howard Ozar
Health Science Associates
10771 Noel Street
Los Alamitos, CA 90720

EMSL Order: 331107031
Customer ID: 32HEAL56
Collected: 6/29/2011
Received: 6/30/2011
Analyzed: 7/05/2011

Proj: 110447LA / Antelope Valley College 3041 West Avenue K, Lancaster, California 93536-5426

Test Report: Air-O - Cell(™) Analysis of Fungal Spores & Particulates by Optical Microscopy (EMSL Method 05-TP-003)

Lab Sample Number:	331107031-0016			331107031-0017			331107031-0018		
Client Sample ID:	11062946			11062947			11062948		
Volume (L):	75			75			75		
Sample Location:	SSV-191			SSV-191			Ouside (ambient), Front, Main		
Spore Types	Raw Count	Count/m³	% of Total	Raw Count	Count/m³	% of Total	Raw Count	Count/m³	% of Total
Alternaria	1	42	9.4	-	-	-	2	84	5.8
Ascospores	1	42	9.4	-	-	-	-	-	-
Aspergillus/Penicillium	3	127	28.3	4*	53*	27.9	5	211	14.6
Basidiospores	-	-	-	4*	53*	27.9	1	42	2.9
Bipolaris++	-	-	-	-	-	-	-	-	-
Chaetomium	1	42	9.4	-	-	-	-	-	-
Cladosporium	1	42	9.4	-	-	-	16	675	46.6
Curvularia	-	-	-	-	-	-	-	-	-
Epicoccum	1*	13*	2.9	-	-	-	-	-	-
Fusarium	-	-	-	-	-	-	-	-	-
Ganoderma	-	-	-	-	-	-	-	-	-
Myxomycetes++	3	127	28.3	2	84	44.2	8	338	23.3
Pithomyces	-	-	-	-	-	-	-	-	-
Rust	-	-	-	-	-	-	1*	13*	0.9
Scopulariopsis	-	-	-	-	-	-	-	-	-
Stachybotrys	-	-	-	-	-	-	-	-	-
Torula	-	-	-	-	-	-	3*	40*	2.8
Ulocladium	-	-	-	-	-	-	-	-	-
Unidentifiable Spores	-	-	-	-	-	-	-	-	-
Botrytis	1*	13*	2.9	-	-	-	-	-	-
Oidium	-	-	-	-	-	-	1	42	2.9
Stemphylium	-	-	-	-	-	-	-	-	-
Total Fungi	12	448	100	10	190	100	37	1450	100
Hyphal Fragment	1	42	-	1*	13*	-	8	338	-
Insect Fragment	2*	27*	-	-	-	-	-	-	-
Pollen	-	-	-	1	42	-	1	42	-
Analyt. Sensitivity 600x	-	42	-	-	42	-	-	42	-
Analyt. Sensitivity 300x	-	13*	-	-	13*	-	-	13*	-
Skin Fragments (1-4)		1	-	-	1	-	-	1	-
Fibrous Particulate (1-4)	-	1	-	-	1	-	-	1	-
Background (1-5)	-	2	-	-	2	-	-	2	-

Initial report from: 07/15/2011 14:08:37

Bipolaris++ = Bipolaris/Dreschlera/Exserohilum Myxomycetes++ = Myxomycetes/Perconia/Smut

Samples analyzed by LA Testing Garden Grove, CA AIHA-LAP, LLC EMLAP 101650

High levels of background particulate can obscure spores and other particulates leading to underestimation. Background levels of fungal spore an overloading of background particulates, prohibiting accurate detection and quantification. Present = Spores detected on overloaded samples. The detection limit is equal to one fungal spore, structure, pollen, fiber particle or insect fragment. *** Denotes particles found at 300X. This report relates only to the samples reported and may not be reproduced except in full, without written approval by LA Testing. Results have not been adjusted for field or laboratory blank unless otherwise noted. Samples received in good condition unless otherwise noted.

Cecil Strait

Cecil Strait, Micro Laboratory Manager
or Other Approved Signatory

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11652 Knott Street Unit F5 Garden Grove, CA 92841
Phone (714) 828-4999 Fax (714) 828-4944 Web: Email losalamitoslab@latesting.com

Attn: Howard Ozar
Health Science Associates
10771 Noel Street
Los Alamitos, CA 90720

EMSL Order: 331107031
Customer ID: 32HEAL56
Collected: 6/29/2011
Received: 6/30/2011
Analyzed: 7/05/2011

Proj: 110447LA / Antelope Valley College, 3041 West Avenue K, Lancaster, California 93536-5426

Test Report: Air-O - Cell(™) Analysis of Fungal Spores & Particulates by Optical Microscopy (EMSL Method 05-TP-003)

Lab Sample Number:	331107031-0019		
Client Sample ID:	11062949		
Volume (L):	75		
Sample Location:	Outside (ambient), Front Main		
Spore Types	**Raw Count**	**Count/m³**	**% of Total**
Alternaria	1	42	3.4
Ascospores	2	84	6.8
Aspergillus/Penicillium	1	42	3.4
Basidiospores	-	-	-
Bipolaris++	-	-	-
Chaetomium	-	-	-
Cladosporium	20	844	68.1
Curvularia	-	-	-
Epicoccum	1*	13*	1.1
Fusarium	-	-	-
Ganoderma	-	-	-
Myxomycetes++	3	127	10.2
Pithomyces	-	-	-
Rust	-	-	-
Scopulariopsis	-	-	-
Stachybotrys	-	-	-
Torula	1	42	3.4
Ulocladium	-	-	-
Unidentifiable Spores	-	-	-
Botrytis	-	-	-
Oidium	1	42	3.4
Stemphylium	-	-	-
Total Fungi	**30**	**1240**	**100**
Hyphal Fragment	2	84	-
Insect Fragment	-	-	-
Pollen	4	169	-
Analyt. Sensitivity 600x	-	42	-
Analyt. Sensitivity 300x	-	13*	-
Skin Fragments (1-4)	-	1	-
Fibrous Particulate (1-4)	-	1	-
Background (1-5)	-	2	

Initial report from: 07/15/2011 14:08:37

Bipolaris++ = Bipolaris/Drechslera/Exserohilum Myxomycetes++ = Myxomycetes/Periconia/Smut

Samples analyzed by LA Testing Garden Grove, CA AIHA-LAP, LLC EMLAP 101650

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Cecil Strait, Micro Laboratory Manager
or Other Approved Signatory

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Attn: Howard Ozar
Health Science Associates
10771 Noel Street
Los Alamitos, CA 90720

EMSL Order: 331107031
Customer ID: 32HEAL56
Collected: 6/29/2011
Received: 6/30/2011
Analyzed: 7/05/2011

Proj: 110447LA / Antelope Valley College, 3041 West Avenue K, Lancaster, California 93536-5426

Test Report: Air-O - Cell(™) Analysis of Fungal Spores & Particulates by Optical Microscopy (EMSL Method 05-TP-003)

Lab Sample Number:	331107031-0013			331107031-0014			331107031-0015		
Client Sample ID:	11062937			11062940			11062943		
Volume (L):	75			75			0		
Sample Location:	Loc. #7 - SCT 135 (cubicals area)			Loc. #2 - Outside (ambient), SW Side of			Field Blank		
Spore Types	**Raw Count**	**Count/m³**	**% of Total**	**Raw Count**	**Count/m³**	**% of Total**	**Raw Count**	**Count/m³**	**% of Total**
Alternaria	-	-	-	1	42	1.7	-	-	-
Ascospores	-	-	-	1	42	1.7	-	-	-
Aspergillus/Penicillium	1*	13*	5.5	1	42	1.7	-	-	-
Basidiospores	-	-	-	-	-	-	-	-	-
Bipolaris++	-	-	-	-	-	-	-	-	-
Chaetomium	1*	13*	5.5	-	-	-	-	-	-
Cladosporium	1	42	17.7	18	760	31.3	-	-	-
Curvularia	-	-	-	-	-	-	-	-	-
Epicoccum	-	-	-	1*	13*	0.5	-	-	-
Fusarium	-	-	-	-	-	-	-	-	-
Ganoderma	-	-	-	-	-	-	-	-	-
Myxomycetes++	4	169	71.3	33	1390	57.2	-	-	-
Pithomyces	-	-	-	-	-	-	-	-	-
Rust	-	-	-	-	-	-	-	-	-
Scopulariopsis	-	-	-	-	-	-	-	-	-
Stachybotrys	-	-	-	-	-	-	-	-	-
Torula	-	-	-	-	-	-	-	-	-
Ulocladium	-	-	-	-	-	-	-	-	-
Unidentifiable Spores	-	-	-	2	84	3.5	-	-	-
Botrytis	-	-	-	2*	27*	1.1	-	-	-
Oidium	-	-	-	1*	13*	0.5	-	-	-
Stemphylium	-	-	-	1*	13*	0.5	-	-	-
Total Fungi	**7**	**237**	**100**	**61**	**2430**	**100**	-	**No Trace**	-
Hyphal Fragment	2*	27*	-	2	84	-	-	-	-
Insect Fragment	-	-	-	-	-	-	-	-	-
Pollen	-	-	-	1	42	-	-	-	-
Analyt. Sensitivity 600x	-	42	-	-	42	-	-	0	-
Analyt. Sensitivity 300x	-	13*	-	-	13*	-	-	0*	-
Skin Fragments (1-4)	-	1	-	-	1	-	-	-	-
Fibrous Particulate (1-4)	-	1	-	-	1	-	-	-	-
Background (1-5)	-	2	-	-	2	-	-	-	-

Initial report from: 07/15/2011 14:08:37

Bipolaris++ = Bipolaris/Dreschlera/Exserohilum Myxomycetes++ = Myxomycetes/Periconia/Smut

Samples analyzed by LA Testing Garden Grove, CA AIHA-LAP, LLC EMLAP #101650

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Cecil Strait, Micro Laboratory Manager
or Other Approved Signatory

For Information on the fungi listed in this report please visit the Resources section at www.emsl.com

HSA

#331107031

10771 Noel Street, Los Alamitos, CA 90720 - office 714-220-3922; fax 714-220-2081 Pg:_____ of _____

labresults@healthscience.com

AIR SAMPLE DATA SHEET

TAT		
2 Weeks	Report to: Howard J. Ozar, CIH	HSA Project No: 110447LA
	Project Mgr: H. Ozar, CIH	Ind. Hyg.: H. Ozar, CIH
	Proj. Location: Antelope Valley College, 3041 West Avenue K, Lancaster, California 93536-5426	Date: June 29, 2011
	Client Reference: Terry Cleveland, Antelope Valley College	Rotameter: Brooks R-6-15-B (HSA #1006 Cal. 03/03/11) Anderson N6 S/N L-207; BIOS Defender 510-H S/N 115109 Cal. 5/23/2011

☐ IAQ Investigation ☐ OSHA Compliance ☐ Abatement/Clearance ☐ Routine Inspection

Sample No:	Sample Type (filter, tube, badge)	Analysis Method Requested	Flow Rate (lpm)		Start Time	Stop Time	Total Mins	Total Vol. (L)	Location/Description/Remarks
11062901	Air-O-Cell, Lot 21520, Exp 2012/01 (EMSL Cat #AOC050)	Total Fungal Spores ID & Enum. (LAT M001) MA-OT	15		1036	1041	5	75	Loc #1 - Outside (Ambient), E side of Building
11062904	Air-O-Cell, Lot 21520, Exp 2012/01 (EMSL Cat #AOC050)	Total Fungal Spores ID & Enum. (LAT M001)	15		1053	1058	5	75	Loc #3 - SCT 137
11062907	Air-O-Cell, Lot 21520, Exp 2012/01 (EMSL Cat #AOC050)	Total Fungal Spores ID & Enum (LAT M001)	15		1108	1113	5	75.	Loc #4 - SCT 147
11062910	Air-O-Cell, Lot 21520, Exp 2012/01 (EMSL Cat #AOC050)	Total Fungal Spores ID & Enum (LAT M001)	15		1123	1128	5	75	Loc #5 - SCT 135
11062913	Air-O-Cell, Lot 21520, Exp 2012/01 (EMSL Cat #AOC050)	Total Fungal Spores ID & Enum (LAT M001)	15		1138	1143	5	75.	Loc #6 - SCT 142
11062916	Air-O-Cell, Lot 21520, Exp 2012/01 (EMSL Cat #AOC050)	Total Fungal Spores ID & Enum (LAT M001)	15		1155	1160	5	75	Loc #7 - SCT 135 (cubicals area)
11062919	Air-O-Cell, Lot 21520, Exp 2012/01 (EMSL Cat #AOC050)	Total Fungal Spores ID & Enum (LAT M001)	15		1215	1220	5	75	Loc #2 - Outside (Ambient), SW side of Building
11062922	Air-O-Cell, Lot 21520, Exp 2012/01 (EMSL Cat #AOC050)	Total Fungal Spores ID & Enum (LAT M001)	15		1421	1426	5	75	Loc #1 - Outside (Ambient), E side of Building

11062925	Air-O-Cell, Lot 21520, Exp 2012/01 (EMSL Cat #AOC050)	Total Fungal Spores ID & Enum (LAT M001)	15		1434	1439	5	75	Loc #3 - SCT 137
11062928	Air-O-Cell, Lot 21520, Exp. 2012/01 (EMSL Cat #AOC050)	Total Fungal Spores ID & Enum. (LAT M001)	15		1453	1458	5	75	Loc #4 - SCT 147
11062931	Air-O-Cell, Lot 21520, Exp. 2012/01 (EMSL Cat #AOC050)	Total Fungal Spores ID & Enum (LAT M001)	15		1513	1518	5	75	Loc #5 - SCT 135
11062934	Air-O-Cell, Lot 21520, Exp. 2012/01 (EMSL Cat #AOC050)	Total Fungal Spores ID & Enum (LAT M001)	15		1527	1532	5	75	Loc #6 - SCT 142
11062937	Air-O-Cell, Lot 21520, Exp 2012/01 (EMSL Cat #AOC050)	Total Fungal Spores ID & Enum (LAT M001)	15		1541	1546	5	75	Loc #7 - SCT 135 (cubicals area)
11062940	Air-O-Cell, Lot 21520, Exp 2012/01 (EMSL Cat #AOC050)	Total Fungal Spores ID & Enum (LAT M001)	15		1601	1606	5	75	Loc #2 - Outside (Ambient), SW side of Building
11062943	Air-O-Cell, Lot 21520, Exp 2012/01 (EMSL Cat #AOC050)	Total Fungal Spores ID & Enum (LAT M001)							Field Blank
11062946	Air-O-Cell, Lot 21520, Exp. 2012/01 (EMSL Cat. #AOC050)	Total Fungal Spores ID & Enum (LAT M001)	15		1642	1647	5	75	SSV-191
11062947	Air-O-Cell, Lot 21520, Exp. 2012/01 (EMSL Cat #AOC050)	Total Fungal Spores ID & Enum. (LAT M001)	15		1650	1655	5	75	SSV-191
11062948	Air-O-Cell, Lot 21520, Exp 2012/01 (EMSL Cat #AOC050)	Total Fungal Spores ID & Enum (LAT M001)	15		1701	1706	5	75	Outside (Ambient), Front, Main
11062949	Air-O-Cell, Lot 21520, Exp. 2012/01 (EMSL Cat #AOC050)	Total Fungal Spores ID & Enum (LAT M001)	15		1711	1716	5	75	Outside (Ambient), Front, Main

Special Instructions to Lab:

Relinquished by:	**Date:** 6/30/11	**Time:**	**Received by:** (WI)	**Date:** 6/30/14	**Time:** 5:50 PM
Relinquished by:	**Date:**	**Time:**	**Received by:**	**Date:**	**Time:**
Relinquished by:	**Date:**	**Time:**	**Received by:**	**Date:**	**Time:**

#331107031

520 Mission Street
South Pasadena, CA 91030
Phone (800)-3034847

Materials Science Division

Attn.: *Howard Ozur*
Health Science Associates
10771 Noel Street
Los Alamitos, CA 90720

Phone 714-220-3922 Fax

LA Testing Case No.: 321111060
Sample(s) Received: 07/08/11
Date of Analysis: 07/25/11
Date Printed: 07/25/11
Reported By: J. Drapala

- Laboratory Report -

Common Particle Identification [TM]

Project: 110447LA / AVC

Analyzed by: *Jerry Drapala*, *Ph D Earth Science* — 07/25/11 (*Date*)

QA/QC : *Shahcrbano Ahmad*, *Analyst* — TBA (*Date*)

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Procurement of Samples and Analytical Overview:

The samples for analysis arrived at LA Testing's facility in South Pasadena, CA on July 8, 2011. The package arrived in satisfactory condition with no evidence of damage to the contents. The purpose of the analysis is to determine the identification of the individual components. The data reported herein was been obtained using the following equipment and methodologies.

Methods & Equipment:	Polarized Light Microscopy (PLM) Epi Microscope Stereo Microscope

Conclusions:

Analysis of the submitted samples shows the presence of synthetics (fibers and Styrofoam particulates – Sample: "11062957", "11062959", "11062960", "11062961"), cellulose, minerals, skin fragments, human and animal hair, insect fragments, MMVF's (possible fibrous glass – Sample: "11062955", "11062956", "11062958"), starch, mold, and pollen.

Unidentified materials, particles found in the samples are inorganic and/or organic materials that cannot be identified solely by PLM. Additional analysis by Scanning Electron Microscopy/Energy-dispersive X-ray, and/or Fourier Transform Infrared Spectroscopy may be required.

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Sample ID	*Description*		*Analyte*	*Concentration* (%)	*LOD* (%)	*Comments*
11062950	SSV-201 AH	Asbestos:	Total	ND	~1%	
		MMVF's:	Total	ND	~1%	
		Glass:	Fragments	ND	~1%	
		Cellulose:	Processed	2	~1%	
			Natural	ND	~1%	
		Synthetics:	Total	10	~1%	
		Hair:	Human	ND	~1%	
			Animal	ND	~1%	
					~1%	
		Biological:	Skin Fragments	2	~1%	
			Insect Fragments	ND	~1%	
			Dust Mites	ND	~1%	
			Spider Silk	ND	~1%	
			Mold	<1	~1%	
			Pollen	<1	~1%	
			Starch	ND	~1%	
		Mineral:	Total	55	~1%	
			Unidentified by method	*29*	*N/A*	

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Sample ID	*Description*		*Analyte*	*Concentration* (%)	*LOD* (%)	*Comments*
11062951	SSV-201 AH	Asbestos:	Total	ND	~1%	
		MMVF's:	Total	ND	~1%	
		Glass:	Fragments	ND	~1%	
		Cellulose:	Processed	ND	~1%	
			Natural	ND	~1%	
		Synthetics:	Total	5	~1%	
		Hair:	Human	ND	~1%	
			Animal	ND	~1%	
					~1%	
		Biological:	Skin Fragments	5	~1%	
			Insect Fragments	ND	~1%	
			Dust Mites	ND	~1%	
			Spider Silk	ND	~1%	
			Mold	<1	~1%	
			Pollen	<1	~1%	
			Starch	ND	~1%	
		Mineral:	Total	60	~1%	
			Unidentified by method	*28*	*N/A*	

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Sample ID	*Description*		*Analyte*	*Concentration* (%)	*LOD* (%)	*Comments*
11062952	MS's Desk	Asbestos:	Total	ND	~1%	
		MMVF's:	Total	ND	~1%	
		Glass:	Fragments	ND	~1%	
		Cellulose:	Processed	15	~1%	
			Natural	ND	~1%	
		Synthetics:	Total	45	~1%	
		Hair:	Human	ND	~1%	
			Animal	ND	~1%	
					~1%	
		Biological:	Skin Fragments	10	~1%	
			Insect Fragments	ND	~1%	
			Dust Mites	ND	~1%	
			Spider Silk	ND	~1%	
			Mold	<1	~1%	
			Pollen	<1	~1%	
			Starch	<1	~1%	
		Mineral:	Total	10	~1%	
			Unidentified by method	*17*	*N/A*	

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11062953	HS's Desk	Asbestos:	Total	ND	~1%	
		MMVF's:	Total	ND	~1%	
		Glass:	Fragments	ND	~1%	
		Cellulose:	Processed	15	~1%	
			Natural	ND	~1%	
		Synthetics:	Total	40	~1%	
		Hair:	Human	ND	~1%	
			Animal	1	~1%	
					~1%	
		Biological:	Skin Fragments	10	~1%	
			Insect Fragments	ND	~1%	
			Dust Mites	ND	~1%	
			Spider Silk	ND	~1%	
			Mold	<1	~1%	
			Pollen	ND	~1%	
			Starch	<1	~1%	
		Mineral:	Total	10	~1%	
			Unidentified by method	22	*N/A*	

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Sample ID	*Description*		*Analyte*	*Concentration* (%)	*LOD* (%)	*Comments*
11062954	GP's Desk	Asbestos:	Total	ND	~1%	
		MMVF's:	Total	ND	~1%	
		Glass:	Fragments	ND	~1%	
		Cellulose:	Processed	5	~1%	
			Natural	ND	~1%	
		Synthetics:	Total	50	~1%	
		Hair:	Human	5	~1%	
			Animal	1	~1%	
					~1%	
		Biological:	Skin Fragments	10	~1%	
			Insect Fragments	ND	~1%	
			Dust Mites	ND	~1%	
			Spider Silk	ND	~1%	
			Mold	<1	~1%	
			Pollen	ND	~1%	
			Starch	1	~1%	
		Mineral:	Total	10	~1%	
			Unidentified by method	17	*N/A*	

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Sample ID	*Description*		*Analyte*	*Concentration* (%)	*LOD* (%)	*Comments*
11062955	Grad (Top surface of book shelf)	Asbestos:	Total	ND	~1%	
		MMVF's.	Total	1	~1%	
		Glass.	Fragments	ND	~1%	
		Cellulose:	Processed	5	~1%	
			Natural	2	~1%	
		Synthetics:	Total	35	~1%	
		Hair:	Human	ND	~1%	
			Animal	ND	~1%	
					~1%	
		Biological:	Skin Fragments	20	~1%	
			Insect Fragments	ND	~1%	
			Dust Mites	ND	~1%	
			Spider Silk	ND	~1%	
			Mold	<1	~1%	
			Pollen	ND	~1%	
			Starch	<1	~1%	
		Mineral:	Total	10	~1%	
			Unidentified by method	*25*	*N/A*	

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Date of Analysis: 07/25 11
Date Printed: 07/25/11
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Sample ID	*Description*		*Analyte*	*Concentration* (%)	*LOD* (%)	*Comments*
11062956	Grad (Horizontal) surface, blinds	Asbestos:	Total	ND	~1%	
		MMVF's:	Total	1	~1%	
		Glass:	Fragments	ND	~1%	
		Cellulose:	Processed	2	~1%	
			Natural	ND	~1%	
		Synthetics:	Total	15	~1%	
		Hair:	Human	ND	~1%	
			Animal	ND	~1%	
					~1%	
		Biological:	Skin Fragments	2	~1%	
			Insect Fragments	ND	~1%	
			Dust Mites	ND	~1%	
			Spider Silk	ND	~1%	
			Mold	ND	~1%	
			Pollen	ND	~1%	
			Starch	ND	~1%	
		Mineral:	Total	60	~1%	
			Unidentified by method	*20*	*N/A*	

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Sample ID	*Description*		*Analyte*	*Concentration* (%)	*LOD* (%)	*Comments*
11062957	Outside, E Wall of Admin	Asbestos:	Total	ND	~1%	
		MMVF's:	Total	ND	~1%	
		Glass:	Fragments	ND	~1%	
		Cellulose:	Processed	ND	~1%	
			Natural	ND	~1%	
		Synthetics:	Styrofoam:	90	~1%	
		Hair:	Human	ND	~1%	
			Animal	ND	~1%	
					~1%	
		Biological:	Skin Fragments	ND	~1%	
			Insect Fragments	ND	~1%	
			Dust Mites	ND	~1%	
			Spider Silk	ND	~1%	
			Mold	ND	~1%	
			Pollen	ND	~1%	
			Starch	ND	~1%	
		Mineral:	Total	10	~1%	
			Unidentified by method	ND	*N/A*	

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Sample ID	*Description*		*Analyte*	*Concentration* (%)	*LOD* (%)	*Comments*
11062958	Inside Admin	Asbestos:	Total	ND	~1%	
		MMVF's:	Total	1	~1%	
		Glass:	Fragments	ND	~1%	
		Cellulose:	Processed	10	~1%	
			Natural	ND	~1%	
		Synthetics:	Total	50	~1%	
		Hair:	Human	1	~1%	
			Animal	1	~1%	
					~1%	
		Biological:	Skin Fragments	5	~1%	
			Insect Fragments	3	~1%	
			Dust Mites	ND	~1%	
			Spider Silk	ND	~1%	
			Mold	ND	~1%	
			Pollen	ND	~1%	
			Starch	ND	~1%	
		Mineral:	Total	10	~1%	
			Unidentified by method	*19*	*N/A*	

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Sample ID	*Description*		*Analyte*	*Concentration* (%)	*LOD* (%)	*Comments*
11062959	Inside Admin	Asbestos:	Total	ND	~1%	
		MMVF's:	Total	ND	~1%	
		Glass:	Fragments	ND	~1%	
		Cellulose:	Processed	10	~1%	
			Natural	ND	~1%	
		Synthetics:	Total	45	~1%	
			Styrofoam:	3	~1%	
		Hair:	Human	ND	~1%	
			Animal	2	~1%	
					~1%	
		Biological:	Skin Fragments	ND	~1%	
			Insect Fragments	5	~1%	
			Dust Mites	ND	~1%	
			Spider Silk	ND	~1%	
			Mold	ND	~1%	
			Pollen	ND	~1%	
			Starch	<1	~1%	
		Mineral:	Total	15	~1%	
			Unidentified by method	*19*	*N/A*	

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Sample ID	*Description*		*Analyte*	*Concentration* (%)	*LOD* (%)	*Comments*
11062960	Inside Admin	Asbestos:	Total	ND	~1%	
		MMVF's:	Total	ND	~1%	
		Glass:	Fragments	ND	~1%	
		Cellulose:	Processed	2	~1%	
			Natural	ND	~1%	
		Synthetics:	Total	10	~1%	
			Styrofoam:	55	~1%	
		Hair:	Human	ND	~1%	
			Animal	ND	~1%	
					~1%	
		Biological:	Skin Fragments	ND	~1%	
			Insect Fragments	5	~1%	
			Dust Mites	ND	~1%	
			Spider Silk	ND	~1%	
			Mold	ND	~1%	
			Pollen	ND	~1%	
			Starch	ND	~1%	
		Mineral:	Total	10	~1%	
			Unidentified by method	*18*	*N/A*	

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Sample ID	*Description*		*Analyte*	*Concentration* (%)	*LOD* (%)	*Comments*
11062961	Construction Site	Asbestos:	Total	ND	~1%	
		MMVF's:	Total	ND	~1%	
		Glass:	Fragments	ND	~1%	
		Cellulose:	Processed	ND	~1%	
			Natural	ND	~1%	
		Synthetics:	Styrofoam:	90	~1%	
		Hair:	Human	ND	~1%	
			Animal	ND	~1%	
					~1%	
		Biological:	Skin Fragments	ND	~1%	
			Insect Fragments	ND	~1%	
			Dust Mites	ND	~1%	
			Spider Silk	ND	~1%	
			Mold	ND	~1%	
			Pollen	ND	~1%	
			Starch	ND	~1%	
		Mineral:	Total	10	~1%	
			Unidentified by method	*ND*	*N/A*	

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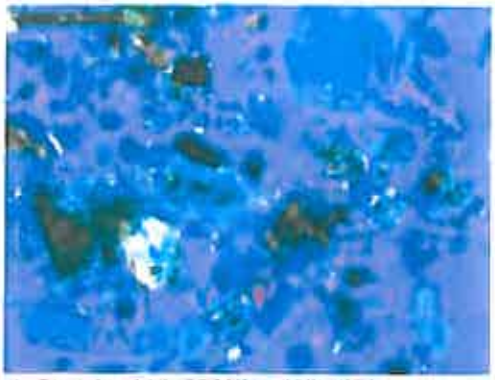

Figure 1. Sample "11062950" at 400x CPL

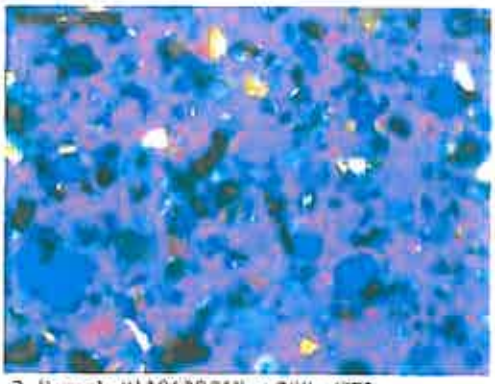

Figure 2. Sample "11062951" at 200x CPL

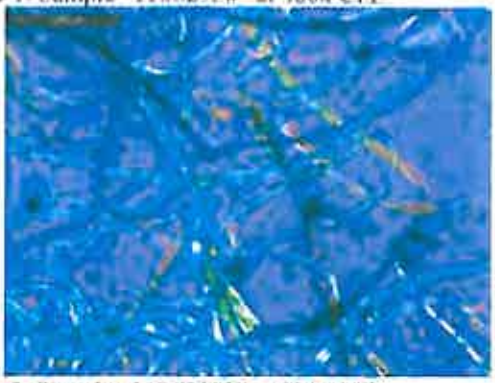

Figure 3. Sample "11062952" at 100x CPL

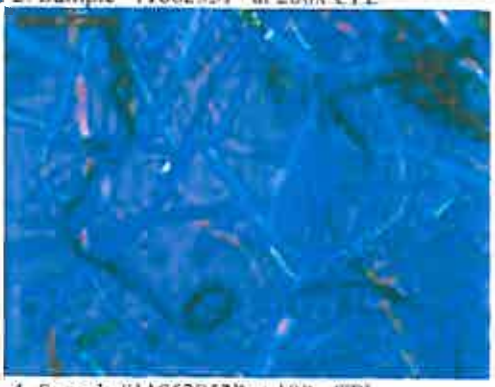

Figure 4. Sample "11062953" at 100x CPL

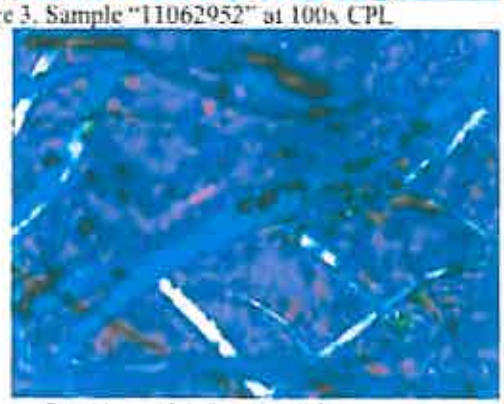

Figure 5. Sample "11062954" at 200x CPL

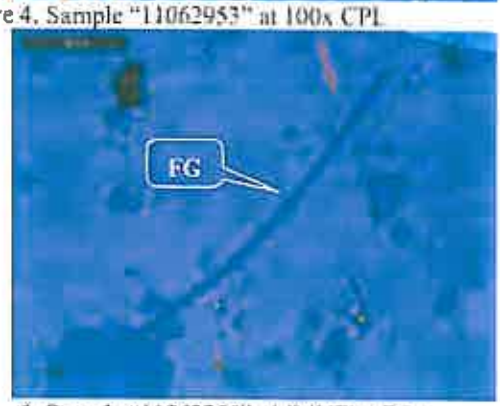

Figure 6. Sample "11062955" : MMVF's (FG) at 400x CPL

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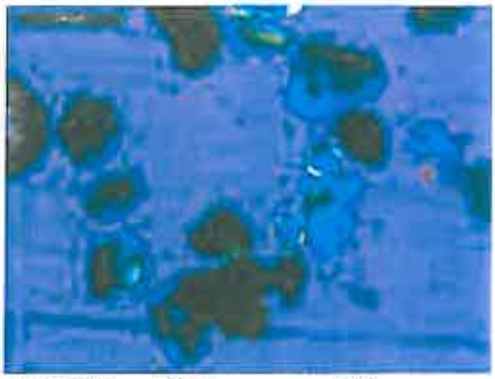

Figure 7. Sample "11062956" at 100x CPL.

Figure 8. Sample "11062957": Styrofoam particulate under stereomicroscope.

Figure 9. Sample "11062958" at 100x CPL.

Figure 10. Sample "11062959": Styrofoam particulate under stereomicroscope.

Figure 11. Sample "11062960": Styrofoam particulate under stereomicroscope.

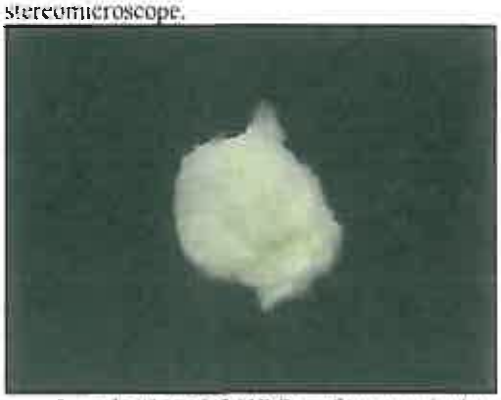

Figure 12. Sample "11062961":Styrofoam particulate under stereomicroscope.

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Descriptions & Definitions

None Detected (ND) denotes the absence of an analyte in the sub-sample analyzed. Trace levels of the analyte may be present in the sample below the limit of detection (LOD).

Trace (TR) denotes the presence of a material in a concentration significantly below the limit of detection (LOD) for the method.

Limit of Detection (LOD): The minimum concentration that can be theoretically achieved for a given analytical procedure in the absence of matrix or sample processing effects. Particle analysis is limited to a single occurrence of an analyte particle in the sub-sample analyzed.

Limit of Quantitation (LOQ): The minimum concentration of an analyte that can be measured within specified limits of precision and accuracy during routine laboratory operating conditions.

Air sample concentrations are calculated to particles per unit volume.

VAF technique estimates the relative projected area of a certain type of particulate from a mixture of particulate by comparison to data derived from analysis of calibration materials having similar texture and particulate content. Due to bi-dimensional nature of the measurements, in some cases the particle thickness could affect the results.

Optical Particle Identification is only intended to identify larger micro- to macroscopic particle observed in indoor environments such as hair, clothing fibers, skin fragments, insect fragments, mold and pollen. In most cases a significant portion of the material is not identifiable by this technique alone and a more comprehensive analysis may be required.

MMVF's:	Isotropic silicon-based fibers often indicative of insulation dust. E.g., fibrous glass, mineral wool and ceramic fibers
Synthetics:	Man-made polymeric fibers and particles often originating from textiles, rugs and furniture. Some examples are polyester from clothing and nylon from carpet
Processed Cellulose:	Generally refers to cotton fibers from clothing and towels
Natural Cellulose:	Unprocessed plant fiber such as trichomes and dust from lawn clippings, etc
Wood:	Hard woody matter indicative of construction dust (saw dust, etc.)
Paper Pulp:	Processed paper fiber that is not consistent with cotton. Examples include paper towel and tissue fiber, cardboard box dust and newspaper, etc
Starch:	Spherical starch grains that can be indicative of natural plant matter, body powder and cooking starch. For example it is used heavily on pizza crust and in baking
Skin Fragments:	Dander from humans or animals
Unidentified:	These particles tend to be deteriorated fragments of the larger particles identified in the report. The category will also include particles not identified by the PLM and may require additional analysis to classify.
Particle Loading	Particle Density, expressed on the scale from 1 to 5. 1 is "No" or "Trace" Particulate. 2 is "Light" (<10%). 3 is "Moderate" (10% – 40%). 4 is "High" (40% - 60%), and 5 is "Overloaded" (greater than 60%).

HSA

10771 Noel Street, Los Alamitos, CA 90720 - office 714-220-3922; fax 714-220-2081
labresults@healthscience.com

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321111060

AIR SAMPLE DATA SHEET

TAT 2Week	Report to: Howard J. Ozar, CIH	HSA Project No: 110447LA
	Project Mgr: H. Ozar, CIH	Ind. Hyg.: H. Ozar, CIH
	Proj. Location: AVC	Date: June 29, 2011
	Client Reference: T. Cleveland	Rotameter:

☐ IAQ Investigation ☐ OSHA Compliance ☐ Abatement/Clearance ☐ Routine Inspection

Sample No:	Sample Type (filter, tube, badge)	Analysis Method Requested	Flow Rate (lpm)		Start Time	Stop Time	Total Mins	Total Vol. (L)	Location/Description/Remarks
11062950	Tape Lift	Comparison Sample (Accumulated Dust)							SSV-201 AH
11062951	Tape Lift	Comparison Sample (Accumulated Dust)							SSV-201 AH
11062952	Tape Lift	Does 11062952 match 11062950 & 110629517 What are the fibrous materials? Is there skin flakes, pollen, etc?							MS's Desk
11062953	Tape Lift	Does 11062953 match 11062950 & 110629517 What are the fibrous materials? Is there skin flakes, pollen, etc?							HS's Desk
11062954	Tape Lift	Does 11062954 match 11062950 & 110629517 What are the fibrous materials? Is there skin flakes, pollen, etc?							GP's Desk
11062955	Tape Lift	Does 11062955 match 11062950 & 110629517 What are the fibrous materials? Is there skin flakes, pollen, etc?							Grad (Top surface of book shelf)
11062956	Tape Lift	Does 11062956 match 11062950 & 110629517 What are the fibrous materials? Is there skin flakes, pollen, etc?							Grad (Horizontal surface blinds)

321111060

11062957	White Specks	Does 11062957 match 110629617							Outside, E Wall of Admin
11062958	White Specks	Does 11062958 match 110629617							Inside Admin
11062959	White Specks	Does 11062959 match 110629617							Inside Admin
11062960	White Specks	Does 11062960 match 110629617							Inside Admin
11062961	Foam	Comparison Sample (Foam)							Construction Site
Special Instructions to Lab: Photographs requested of microscope images.									

Relinquished by: [signature]	Date: 6/30/11	Time:	Received by: [signature] (WI)	Date: 6/30/11	Time: 5:45PM
Relinquished by:	Date:	Time:	Received by: [signature] (PV)	Date: 7/8/11	Time: 1:20pm
Relinquished by:	Date:	Time:	Received by:	Date:	Time:

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AIR SAMPLE DATA SHEET

TAT		
2Week	Report to: Howard J. Ozar, CIH	HSA Project No: 110447LA
	Project Mgr: H. Ozar, CIH	Ind. Hyg.: H. Ozar, CIH
	Proj. Location: AVC	Date: June 29, 2011
	Client Reference: T. Cleveland	Rotameter:

☐ IAQ Investigation ☐ OSHA Compliance ☐ Abatement/Clearance ☐ Routine Inspection

Sample No:	Sample Type (filter, tube, badge)	Analysis Method Requested	Flow Rate (lpm)		Start Time	Stop Time	Total Mins	Total Vol. (L)	Location/Description/Remarks
11082950	Tape Lift	Comparison Sample (Accumulated Dust)							SSV-201 AH
11082951	Tape Lift	Comparison Sample (Accumulated Dust)							SSV-201 AH
11082952	Tape Lift	Does 11082952 match 11082950 & 110829517 What are the fibrous materials? Is there skin flakes, pollen, etc?							MS's Desk
11082953	Tape Lift	Does 11082953 match 11082950 & 110829517 What are the fibrous materials? Is there skin flakes, pollen, etc?							HS's Desk
11082954	Tape Lift	Does 11082954 match 11082950 & 110829517 What are the fibrous materials? Is there skin flakes, pollen, etc?							GP's Desk
11082955	Tape Lift	Does 11082955 match 11082950 & 110829517 What are the fibrous materials? Is there skin flakes, pollen, etc?							Grad (Top surface of book shelf)
11082956	Tape Lift	Does 11082956 match 11082950 & 110829517 What are the fibrous materials? Is there skin flakes, pollen, etc?							Grad (Horizontal surface, blinds)

11062957	White Specks	Does 11062957 match 110629817							Outside, E Wall of Admin
11062958	White Specks	Does 11062958 match 110629817							Inside Admin
11062959	White Specks	Does 11062959 match 110629817							Inside Admin
11062960	White Specks	Does 11062960 match 110629817							Inside Admin
11062961	Foam	Comparison Sample (Foam)							Construction Site
Special Instructions to Lab: Photographs requested of microscope images.									

Relinquished by: [signature]	Date: 6/30/11	Time:	Received by: [signature] (WI)	Date: 6/30/11	Time: 5:45PM
Relinquished by:	Date:	Time:	Received by: [signature] (PV)	Date: 7/8/11	Time: 1:20pm
Relinquished by:	Date:	Time:	Received by:	Date:	Time:

321111060

321111060

Subject: CPID report (Order#321111060) - Attn: Howard Ozar
From: "Drapala, Jerry" <jdrapala@EMSL.com>
Date: Mon, 25 Jul 2011 18:01:50 -0400
To: "Labresults@healthscience.com" <Labresults@healthscience.com>
CC: "Chau, Katie" <kchau@EMSL.com>

Hi Howard,

Attached you should find the report, COC, and invoice.
If you have any questions, feel free to call/email me anytime.
We apologize for any inconvenience.

Best regards,

Jerry Drapala Ph.D | *Laboratory Manager*
LA Testing | 520 Mission Street South Pasadena, CA 91030
Phone 800-303-0047 | 323-254-9960 | Fax 323-254-9982
Lab Hours Monday - Friday 8AM - 6PM, Saturday 9AM - 5PM, Sunday On-Call

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10771 Noel St., Los Alamitos, CA 90720 714/220-3922 FAX 714/220-2081

APPENDIX II - Instrument(s)

MODEL 8760
SERIAL 55070243

TEST ID	TEMP	DEWPOINT	WETBULB	UNITS	HUMIDITY	UNITS	CO2	UNITS	CO	UNITS	ABS HUMI	UNITS	HUM RATIO	UNITS	TIME	DATE
1	77.4	52	61.6	°F	42.4	%RH	446	ppmCO2	0	ppmCO	6.00E-04	lb/ft3	8.24E-03	lb/lb	8:55:38	6/16/2011
1	78.1	51.5	61.9	°F	39.4	%RH	452	ppmCO2	0	ppmCO	5.87E-04	lb/ft3	8.06E-03	lb/lb	8:56:38	6/16/2011
1	78.2	50.5	60.7	°F	40.6	%RH	441	ppmCO2	0	ppmCO	5.69E-04	lb/ft3	7.78E-03	lb/lb	8:57:38	6/16/2011
1	78.3	50.6	60.9	°F	40.2	%RH	442	ppmCO2	0	ppmCO	5.70E-04	lb/ft3	7.80E-03	lb/lb	8:58:39	6/16/2011
1	78.5	50.2	60.7	°F	39.8	%RH	437	ppmCO2	0	ppmCO	5.69E-04	lb/ft3	7.70E-03	lb/lb	8:59:39	6/16/2011
1	78.5	50.3	60.7	°F	39.8	%RH	438	ppmCO2	0	ppmCO	5.69E-04	lb/ft3	7.71E-03	lb/lb	9:00:39	6/16/2011
1	78.3	50.8	60.9	°F	40.8	%RH	437	ppmCO2	0	ppmCO	5.74E-04	lb/ft3	7.86E-03	lb/lb	9:01:39	6/16/2011
1	78.4	50.8	60.9	°F	40.8	%RH	436	ppmCO2	0	ppmCO	5.75E-04	lb/ft3	7.87E-03	lb/lb	9:02:39	6/16/2011
1	78.4	51.1	61.1	°F	41.1	%RH	437	ppmCO2	0.1	ppmCO	5.82E-04	lb/ft3	7.96E-03	lb/lb	9:03:39	6/16/2011
1	78.5	50.6	60.9	°F	40.3	%RH	435	ppmCO2	0	ppmCO	5.70E-04	lb/ft3	7.81E-03	lb/lb	9:04:40	6/16/2011
1	78.3	50.7	60.8	°F	40.8	%RH	434	ppmCO2	0	ppmCO	5.74E-04	lb/ft3	7.85E-03	lb/lb	9:05:40	6/16/2011
1	78.5	51.3	61.2	°F	41.2	%RH	432	ppmCO2	0.1	ppmCO	5.85E-04	lb/ft3	8.01E-03	lb/lb	9:06:40	6/16/2011
1	78.2	50.7	60.8	°F	40.8	%RH	435	ppmCO2	0	ppmCO	5.73E-04	lb/ft3	7.83E-03	lb/lb	9:07:40	6/16/2011
1	75.9	50.2	60.5	°F	40.5	%RH	425	ppmCO2	0	ppmCO	5.63E-04	lb/ft3	7.69E-03	lb/lb	9:08:40	6/16/2011
1	76	50.1	60.5	°F	40.2	%RH	422	ppmCO2	0	ppmCO	5.61E-04	lb/ft3	7.66E-03	lb/lb	9:09:41	6/16/2011
1	76.1	50.2	60.6	°F	40.2	%RH	431	ppmCO2	0.1	ppmCO	5.63E-04	lb/ft3	7.69E-03	lb/lb	9:10:41	6/16/2011
1	76.1	50.7	60.8	°F	40.9	%RH	433	ppmCO2	0.1	ppmCO	5.73E-04	lb/ft3	7.84E-03	lb/lb	9:11:41	6/16/2011
1	76.3	51.6	61.3	°F	42.2	%RH	429	ppmCO2	0	ppmCO	5.93E-04	lb/ft3	8.12E-03	lb/lb	9:12:41	6/16/2011
1	76.5	51.5	61.3	°F	41.7	%RH	434	ppmCO2	0	ppmCO	5.90E-04	lb/ft3	8.07E-03	lb/lb	9:13:41	6/16/2011
1	76.6	50.9	61	°F	40.5	%RH	433	ppmCO2	0	ppmCO	5.76E-04	lb/ft3	7.89E-03	lb/lb	9:14:42	6/16/2011
1	76.7	51.1	61.2	°F	40.8	%RH	435	ppmCO2	0	ppmCO	5.80E-04	lb/ft3	7.95E-03	lb/lb	9:15:42	6/16/2011
1	76.8	50.6	61	°F	39.8	%RH	435	ppmCO2	0	ppmCO	5.70E-04	lb/ft3	7.81E-03	lb/lb	9:16:42	6/16/2011
1	76.5	50.6	60.9	°F	40.2	%RH	433	ppmCO2	0.1	ppmCO	5.70E-04	lb/ft3	7.80E-03	lb/lb	9:17:42	6/16/2011
1	76.7	50.5	60.9	°F	39.8	%RH	433	ppmCO2	0	ppmCO	5.68E-04	lb/ft3	7.77E-03	lb/lb	9:18:42	6/16/2011
1	76.6	50.6	60.9	°F	40.1	%RH	436	ppmCO2	0	ppmCO	5.69E-04	lb/ft3	7.79E-03	lb/lb	9:19:43	6/16/2011
1	76.5	50.4	60.8	°F	40	%RH	435	ppmCO2	0	ppmCO	5.67E-04	lb/ft3	7.76E-03	lb/lb	9:20:43	6/16/2011
1	76.7	51.8	61.5	°F	41.9	%RH	432	ppmCO2	0	ppmCO	5.96E-04	lb/ft3	8.17E-03	lb/lb	9:21:43	6/16/2011
1	77	51.3	61.4	°F	40.7	%RH	436	ppmCO2	0	ppmCO	5.86E-04	lb/ft3	8.03E-03	lb/lb	9:22:43	6/16/2011
1	76.4	50.6	60.8	°F	40.5	%RH	433	ppmCO2	0.1	ppmCO	5.70E-04	lb/ft3	7.81E-03	lb/lb	9:23:43	6/16/2011
1	76.7	50.9	61.1	°F	40.4	%RH	433	ppmCO2	0.1	ppmCO	5.77E-04	lb/ft3	7.90E-03	lb/lb	9:24:44	6/16/2011
1	76.4	50.2	60.6	°F	39.7	%RH	436	ppmCO2	0	ppmCO	5.61E-04	lb/ft3	7.68E-03	lb/lb	9:25:44	6/16/2011
1	76.6	50.8	61	°F	40.6	%RH	433	ppmCO2	0	ppmCO	5.75E-04	lb/ft3	7.87E-03	lb/lb	9:26:44	6/16/2011
1	76.6	51.3	61.2	°F	41.2	%RH	436	ppmCO2	0	ppmCO	5.85E-04	lb/ft3	8.01E-03	lb/lb	9:27:44	6/16/2011
1	77.1	52	61.7	°F	41.7	%RH	435	ppmCO2	0.1	ppmCO	6.01E-04	lb/ft3	8.24E-03	lb/lb	9:28:44	6/16/2011
1	77	50.7	61.1	°F	39.8	%RH	437	ppmCO2	0	ppmCO	5.72E-04	lb/ft3	7.84E-03	lb/lb	9:29:45	6/16/2011
1	77.4	51.7	61.7	°F	40.8	%RH	437	ppmCO2	0	ppmCO	5.93E-04	lb/ft3	8.13E-03	lb/lb	9:30:45	6/16/2011
1	77.1	51	61.3	°F	40.1	%RH	438	ppmCO2	0.1	ppmCO	5.79E-04	lb/ft3	7.93E-03	lb/lb	9:31:45	6/16/2011
1	76.7	51	61.1	°F	40.6	%RH	435	ppmCO2	0	ppmCO	5.79E-04	lb/ft3	7.93E-03	lb/lb	9:32:45	6/16/2011
1	77.2	52	61.8	°F	41.5	%RH	435	ppmCO2	0	ppmCO	6.00E-04	lb/ft3	8.22E-03	lb/lb	9:33:46	6/16/2011
1	77	51.9	61.6	°F	41.5	%RH	437	ppmCO2	0	ppmCO	5.97E-04	lb/ft3	8.19E-03	lb/lb	9:34:46	6/16/2011
1	77	51.6	61.5	°F	41.2	%RH	435	ppmCO2	0	ppmCO	5.91E-04	lb/ft3	8.10E-03	lb/lb	9:35:46	6/16/2011
1	77.3	51.2	61.4	°F	40.1	%RH	435	ppmCO2	0	ppmCO	5.82E-04	lb/ft3	7.97E-03	lb/lb	9:36:46	6/16/2011
1	77.5	51.7	61.8	°F	40.6	%RH	437	ppmCO2	0	ppmCO	5.94E-04	lb/ft3	8.16E-03	lb/lb	9:37:46	6/16/2011
2	70.8	48.2	57.6	°F	44.7	%RH	497	ppmCO2	0	ppmCO	5.27E-04	lb/ft3	7.13E-03	lb/lb	9:45:24	6/16/2011
2	70.7	48.4	57.7	°F	45.1	%RH	488	ppmCO2	0	ppmCO	5.31E-04	lb/ft3	7.18E-03	lb/lb	9:46:24	6/16/2011
2	70.3	48.2	57.5	°F	45.4	%RH	478	ppmCO2	0	ppmCO	5.28E-04	lb/ft3	7.14E-03	lb/lb	9:47:24	6/16/2011
2	70.3	48.3	57.5	°F	45.6	%RH	472	ppmCO2	0	ppmCO	5.31E-04	lb/ft3	7.17E-03	lb/lb	9:48:24	6/16/2011
2	70.1	48.3	57.4	°F	45.9	%RH	463	ppmCO2	0.1	ppmCO	5.29E-04	lb/ft3	7.15E-03	lb/lb	9:49:25	6/16/2011
2	70	48.3	57.4	°F	46.1	%RH	459	ppmCO2	0.1	ppmCO	5.31E-04	lb/ft3	7.17E-03	lb/lb	9:50:25	6/16/2011
2	69.9	48.4	57.4	°F	46.3	%RH	458	ppmCO2	0	ppmCO	5.31E-04	lb/ft3	7.17E-03	lb/lb	9:51:25	6/16/2011
2	69.7	48.3	57.3	°F	46.4	%RH	455	ppmCO2	0	ppmCO	5.29E-04	lb/ft3	7.15E-03	lb/lb	9:52:25	6/16/2011
2	69.6	48.2	57.2	°F	46.5	%RH	453	ppmCO2	0	ppmCO	5.29E-04	lb/ft3	7.14E-03	lb/lb	9:53:25	6/16/2011
2	69.6	48.3	57.2	°F	46.6	%RH	451	ppmCO2	0	ppmCO	5.30E-04	lb/ft3	7.15E-03	lb/lb	9:54:26	6/16/2011
2	69.6	48.4	57.3	°F	46.8	%RH	452	ppmCO2	0.1	ppmCO	5.32E-04	lb/ft3	7.18E-03	lb/lb	9:55:26	6/16/2011
2	69.4	48.3	57.2	°F	47	%RH	455	ppmCO2	0.1	ppmCO	5.31E-04	lb/ft3	7.16E-03	lb/lb	9:56:26	6/16/2011
2	69.4	48.4	57.2	°F	47.2	%RH	474	ppmCO2	0.1	ppmCO	5.33E-04	lb/ft3	7.19E-03	lb/lb	9:57:26	6/16/2011
2	69.4	48.6	57.3	°F	47.5	%RH	481	ppmCO2	0	ppmCO	5.37E-04	lb/ft3	7.24E-03	lb/lb	9:58:27	6/16/2011
2	69.4	48.4	57.2	°F	47.2	%RH	473	ppmCO2	0.1	ppmCO	5.34E-04	lb/ft3	7.20E-03	lb/lb	9:59:27	6/16/2011
2	69.4	48.4	57.2	°F	47.2	%RH	468	ppmCO2	0	ppmCO	5.33E-04	lb/ft3	7.19E-03	lb/lb	10:00:27	6/16/2011
2	69.4	48.5	57.2	°F	47.3	%RH	464	ppmCO2	0	ppmCO	5.34E-04	lb/ft3	7.20E-03	lb/lb	10:01:27	6/16/2011
2	69.3	48.5	57.2	°F	47.5	%RH	460	ppmCO2	0	ppmCO	5.35E-04	lb/ft3	7.22E-03	lb/lb	10:02:27	6/16/2011
2	69.3	48.5	57.2	°F	47.5	%RH	457	ppmCO2	0	ppmCO	5.35E-04	lb/ft3	7.22E-03	lb/lb	10:03:28	6/16/2011
2	69.3	48.6	57.3	°F	47.6	%RH	464	ppmCO2	0	ppmCO	5.36E-04	lb/ft3	7.24E-03	lb/lb	10:04:28	6/16/2011
2	69.3	48.6	57.3	°F	47.6	%RH	463	ppmCO2	0.1	ppmCO	5.36E-04	lb/ft3	7.24E-03	lb/lb	10:05:28	6/16/2011
2	69.3	48.6	57.3	°F	47.6	%RH	459	ppmCO2	0.1	ppmCO	5.36E-04	lb/ft3	7.23E-03	lb/lb	10:06:28	6/16/2011
2	69.3	48.7	57.3	°F	47.7	%RH	454	ppmCO2	0	ppmCO	5.37E-04	lb/ft3	7.25E-03	lb/lb	10:07:28	6/16/2011
2	69.3	48.7	57.3	°F	47.8	%RH	452	ppmCO2	0	ppmCO	5.38E-04	lb/ft3	7.26E-03	lb/lb	10:08:29	6/16/2011
2	69.3	48.7	57.3	°F	47.8	%RH	451	ppmCO2	0	ppmCO	5.38E-04	lb/ft3	7.26E-03	lb/lb	10:09:29	6/16/2011
2	69.3	48.7	57.3	°F	47.8	%RH	450	ppmCO2	0	ppmCO	5.38E-04	lb/ft3	7.26E-03	lb/lb	10:10:29	6/16/2011
2	69.3	48.7	57.3	°F	47.8	%RH	448	ppmCO2	0.1	ppmCO	5.38E-04	lb/ft3	7.26E-03	lb/lb	10:11:29	6/16/2011
2	69.3	48.7	57.2	°F	47.9	%RH	446	ppmCO2	0	ppmCO	5.39E-04	lb/ft3	7.27E-03	lb/lb	10:12:29	6/16/2011
2	69.3	48.8	57.4	°F	48	%RH	446	ppmCO2	0	ppmCO	5.41E-04	lb/ft3	7.30E-03	lb/lb	10:13:30	6/16/2011
2	69.3	48.9	57.4	°F	48.2	%RH	445	ppmCO2	0	ppmCO	5.43E-04	lb/ft3	7.32E-03	lb/lb	10:14:30	6/16/2011
2	69.2	48.8	57.3	°F	48.2	%RH	443	ppmCO2	0	ppmCO	5.41E-04	lb/ft3	7.30E-03	lb/lb	10:15:30	6/16/2011
2	69.3	49	57.5	°F	48.4	%RH	448	ppmCO2	0.1	ppmCO	5.45E-04	lb/ft3	7.35E-03	lb/lb	10:16:30	6/16/2011
2	69.3	49.1	57.5	°F	48.5	%RH	449	ppmCO2	0	ppmCO	5.46E-04	lb/ft3	7.37E-03	lb/lb	10:17:30	6/16/2011
2	69.3	49.2	57.5	°F	48.8	%RH	466	ppmCO2	0	ppmCO	5.48E-04	lb/ft3	7.39E-03	lb/lb	10:18:31	6/16/2011
2	69.3	49.2	57.6	°F	48.8	%RH	473	ppmCO2	0	ppmCO	5.49E-04	lb/ft3	7.41E-03	lb/lb	10:19:31	6/16/2011
2	69.3	49.2	57.6	°F	48.9	%RH	489	ppmCO2	0.1	ppmCO	5.50E-04	lb/ft3	7.42E-03	lb/lb	10:20:31	6/16/2011
2	69.3	49.2	57.6	°F	48.8	%RH	483	ppmCO2	0.1	ppmCO	5.49E-04	lb/ft3	7.41E-03	lb/lb	10:21:31	6/16/2011
2	69.3	49.2	57.6	°F	48.8	%RH	487	ppmCO2	0.2	ppmCO	5.49E-04	lb/ft3	7.41E-03	lb/lb	10:22:31	6/16/2011
2	69.3	49.3	57.6	°F	49	%RH	484	ppmCO2	0.1	ppmCO	5.52E-04	lb/ft3	7.44E-03	lb/lb	10:23:32	6/16/2011
2	69.3	49.3	57.6	°F	48.9	%RH	480	ppmCO2	0.1	ppmCO	5.50E-04	lb/ft3	7.43E-03	lb/lb	10:24:32	6/16/2011
2	69.3	49.2	57.6	°F	48.8	%RH	478	ppmCO2	0	ppmCO	5.50E-04	lb/ft3	7.42E-03	lb/lb	10:25:32	6/16/2011
2	69.4	49.3	57.6	°F	48.8	%RH	475	ppmCO2	0.1	ppmCO	5.50E-04	lb/ft3	7.43E-03	lb/lb	10:26:32	6/16/2011
2	69.3	49.2	57.5	°F	48.6	%RH	467	ppmCO2	0	ppmCO	5.48E-04	lb/ft3	7.40E-03	lb/lb	10:27:32	6/16/2011

2	69.3	49.1	57.5 °F	48.5 %RH	462 ppmCO2	0 ppmCO	5.40E-04 lb/ft3	7.37E-03 lb/lb	10:28:33	6/16/2011
2	69.3	49.1	57.5 °F	48.5 %RH	457 ppmCO2	-0.1 ppmCO	5.46E-04 lb/ft3	7.37E-03 lb/lb	10:29:33	6/16/2011
2	69.3	49.1	57.5 °F	48.5 %RH	455 ppmCO2	0 ppmCO	5.47E-04 lb/ft3	7.38E-03 lb/lb	10:30:33	6/16/2011
2	69.3	49.1	57.5 °F	48.5 %RH	452 ppmCO2	-0.1 ppmCO	5.47E-04 lb/ft3	7.37E-03 lb/lb	10:31:33	6/16/2011
2	69.3	49.1	57.5 °F	48.4 %RH	449 ppmCO2	0.1 ppmCO	5.46E-04 lb/ft3	7.37E-03 lb/lb	10:32:33	6/16/2011
2	69.3	49.1	57.5 °F	48.5 %RH	449 ppmCO2	0 ppmCO	5.47E-04 lb/ft3	7.38E-03 lb/lb	10:33:34	6/16/2011
2	69.4	49.2	57.6 °F	48.5 %RH	447 ppmCO2	0 ppmCO	5.47E-04 lb/ft3	7.39E-03 lb/lb	10:34:34	6/16/2011
2	69.3	49.1	57.5 °F	48.5 %RH	444 ppmCO2	-0.1 ppmCO	5.46E-04 lb/ft3	7.37E-03 lb/lb	10:35:34	6/16/2011
2	69.3	49.1	57.5 °F	48.5 %RH	443 ppmCO2	0.1 ppmCO	5.46E-04 lb/ft3	7.37E-03 lb/lb	10:36:34	6/16/2011
2	69.4	49.2	57.6 °F	48.5 %RH	445 ppmCO2	0 ppmCO	5.48E-04 lb/ft3	7.39E-03 lb/lb	10:37:34	6/16/2011
2	69.6	49.3	57.7 °F	48.4 %RH	447 ppmCO2	0 ppmCO	5.50E-04 lb/ft3	7.43E-03 lb/lb	10:38:35	6/16/2011
2	69.9	49.5	57.9 °F	48.3 %RH	450 ppmCO2	0.2 ppmCO	5.54E-04 lb/ft3	7.48E-03 lb/lb	10:39:35	6/16/2011
2	70.2	49.5	58.1 °F	47.9 %RH	450 ppmCO2	0 ppmCO	5.54E-04 lb/ft3	7.49E-03 lb/lb	10:40:35	6/16/2011
2	70.3	49.5	58.1 °F	47.5 %RH	450 ppmCO2	0 ppmCO	5.54E-04 lb/ft3	7.49E-03 lb/lb	10:41:35	6/16/2011
2	70.6	49.5	58.2 °F	47.2 %RH	454 ppmCO2	0 ppmCO	5.54E-04 lb/ft3	7.50E-03 lb/lb	10:42:36	6/16/2011
2	70.7	49.5	58.2 °F	47 %RH	454 ppmCO2	0 ppmCO	5.54E-04 lb/ft3	7.50E-03 lb/lb	10:43:36	6/16/2011
2	71	49.7	58.4 °F	46.8 %RH	454 ppmCO2	0 ppmCO	5.56E-04 lb/ft3	7.53E-03 lb/lb	10:44:36	6/16/2011
2	71.1	49.7	58.5 °F	46.6 %RH	455 ppmCO2	0 ppmCO	5.57E-04 lb/ft3	7.54E-03 lb/lb	10:45:36	6/16/2011
2	71.2	49.7	58.5 °F	46.5 %RH	455 ppmCO2	0 ppmCO	5.56E-04 lb/ft3	7.54E-03 lb/lb	10:46:36	6/16/2011
2	71.3	49.8	58.5 °F	46.3 %RH	455 ppmCO2	0.1 ppmCO	5.56E-04 lb/ft3	7.53E-03 lb/lb	10:47:37	6/16/2011
2	71.4	49.7	58.5 °F	46.1 %RH	456 ppmCO2	0.1 ppmCO	5.56E-04 lb/ft3	7.53E-03 lb/lb	10:48:37	6/16/2011
2	71.6	49.7	58.7 °F	46 %RH	456 ppmCO2	0 ppmCO	5.57E-04 lb/ft3	7.56E-03 lb/lb	10:49:37	6/16/2011
2	71.7	49.7	58.7 °F	45.8 %RH	457 ppmCO2	0 ppmCO	5.57E-04 lb/ft3	7.55E-03 lb/lb	10:50:37	6/16/2011
2	71.8	49.8	58.8 °F	45.7 %RH	457 ppmCO2	0.1 ppmCO	5.58E-04 lb/ft3	7.56E-03 lb/lb	10:51:37	6/16/2011
2	71.8	49.8	58.8 °F	45.7 %RH	457 ppmCO2	0 ppmCO	5.57E-04 lb/ft3	7.56E-03 lb/lb	10:52:38	6/16/2011
2	72	49.8	58.8 °F	45.4 %RH	458 ppmCO2	0 ppmCO	5.58E-04 lb/ft3	7.56E-03 lb/lb	10:53:38	6/16/2011
2	72	49.8	58.8 °F	45.4 %RH	460 ppmCO2	0 ppmCO	5.58E-04 lb/ft3	7.58E-03 lb/lb	10:54:38	6/16/2011
2	72.1	49.9	58.9 °F	45.5 %RH	460 ppmCO2	0.2 ppmCO	5.60E-04 lb/ft3	7.61E-03 lb/lb	10:55:38	6/16/2011
2	72.1	49.8	58.9 °F	45.2 %RH	460 ppmCO2	0 ppmCO	5.58E-04 lb/ft3	7.58E-03 lb/lb	10:56:38	6/16/2011
2	72.3	49.9	59 °F	45.2 %RH	460 ppmCO2	0 ppmCO	5.61E-04 lb/ft3	7.61E-03 lb/lb	10:57:39	6/16/2011
2	72.3	49.9	59 °F	45.2 %RH	460 ppmCO2	0.1 ppmCO	5.61E-04 lb/ft3	7.61E-03 lb/lb	10:58:39	6/16/2011
2	72.5	50	59.1 °F	45.1 %RH	461 ppmCO2	0 ppmCO	5.63E-04 lb/ft3	7.64E-03 lb/lb	10:59:39	6/16/2011
2	72.5	50	59.1 °F	45 %RH	461 ppmCO2	0 ppmCO	5.61E-04 lb/ft3	7.62E-03 lb/lb	11:00:39	6/16/2011
2	72.5	49.9	59.1 °F	44.9 %RH	461 ppmCO2	-0.1 ppmCO	5.60E-04 lb/ft3	7.61E-03 lb/lb	11:01:39	6/16/2011
2	72.6	50.1	59.2 °F	45 %RH	460 ppmCO2	0.1 ppmCO	5.63E-04 lb/ft3	7.65E-03 lb/lb	11:02:40	6/16/2011
2	72.7	50.2	59.3 °F	45 %RH	462 ppmCO2	0.1 ppmCO	5.65E-04 lb/ft3	7.68E-03 lb/lb	11:03:40	6/16/2011
2	72.7	50.2	59.3 °F	45 %RH	462 ppmCO2	-0.2 ppmCO	5.65E-04 lb/ft3	7.68E-03 lb/lb	11:04:40	6/16/2011
2	72.9	50.2	59.4 °F	44.8 %RH	463 ppmCO2	-0.2 ppmCO	5.66E-04 lb/ft3	7.70E-03 lb/lb	11:05:40	6/16/2011
2	72.9	50.3	59.4 °F	44.9 %RH	463 ppmCO2	-0.1 ppmCO	5.68E-04 lb/ft3	7.72E-03 lb/lb	11:06:40	6/16/2011
2	72.9	50.2	59.4 °F	44.8 %RH	462 ppmCO2	0.1 ppmCO	5.66E-04 lb/ft3	7.70E-03 lb/lb	11:07:41	6/16/2011
2	72.9	50.1	59.3 °F	44.6 %RH	463 ppmCO2	0 ppmCO	5.64E-04 lb/ft3	7.66E-03 lb/lb	11:08:41	6/16/2011
2	73	50.2	59.4 °F	44.6 %RH	463 ppmCO2	-0.1 ppmCO	5.65E-04 lb/ft3	7.68E-03 lb/lb	11:09:41	6/16/2011
2	73	50.1	59.4 °F	44.5 %RH	464 ppmCO2	0.1 ppmCO	5.65E-04 lb/ft3	7.67E-03 lb/lb	11:10:41	6/16/2011
2	73	50.2	59.4 °F	44.7 %RH	463 ppmCO2	0.1 ppmCO	5.66E-04 lb/ft3	7.69E-03 lb/lb	11:11:41	6/16/2011
2	72.9	50.5	59.5 °F	45.2 %RH	466 ppmCO2	0.1 ppmCO	5.72E-04 lb/ft3	7.77E-03 lb/lb	11:12:42	6/16/2011
2	72.9	49.9	59.2 °F	44.2 %RH	463 ppmCO2	0 ppmCO	5.59E-04 lb/ft3	7.59E-03 lb/lb	11:13:42	6/16/2011
2	72.6	49.2	58.8 °F	43.6 %RH	474 ppmCO2	0.1 ppmCO	5.45E-04 lb/ft3	7.40E-03 lb/lb	11:14:42	6/16/2011
2	72.4	49.1	58.7 °F	43.6 %RH	512 ppmCO2	0.1 ppmCO	5.43E-04 lb/ft3	7.37E-03 lb/lb	11:15:42	6/16/2011
2	72.2	48.7	58.4 °F	43.2 %RH	523 ppmCO2	-0.1 ppmCO	5.35E-04 lb/ft3	7.26E-03 lb/lb	11:16:42	6/16/2011
2	72	48.5	58.3 °F	43.2 %RH	541 ppmCO2	0.1 ppmCO	5.31E-04 lb/ft3	7.20E-03 lb/lb	11:17:43	6/16/2011
2	71.8	48.1	58 °F	42.9 %RH	534 ppmCO2	0.1 ppmCO	5.24E-04 lb/ft3	7.11E-03 lb/lb	11:18:43	6/16/2011
2	71.4	47.7	57.7 °F	42.8 %RH	534 ppmCO2	0 ppmCO	5.17E-04 lb/ft3	6.99E-03 lb/lb	11:19:43	6/16/2011
2	71.3	47.7	57.6 °F	43.1 %RH	530 ppmCO2	0 ppmCO	5.17E-04 lb/ft3	7.00E-03 lb/lb	11:20:43	6/16/2011
2	71.2	48	57.7 °F	43.6 %RH	532 ppmCO2	0.1 ppmCO	5.22E-04 lb/ft3	7.07E-03 lb/lb	11:21:44	6/16/2011
2	70.9	48.4	57.8 °F	44.8 %RH	534 ppmCO2	0 ppmCO	5.31E-04 lb/ft3	7.18E-03 lb/lb	11:22:44	6/16/2011
2	70.9	48.8	58 °F	45.5 %RH	513 ppmCO2	0.1 ppmCO	5.38E-04 lb/ft3	7.29E-03 lb/lb	11:23:44	6/16/2011
2	70.6	49	58 °F	46.4 %RH	503 ppmCO2	0.1 ppmCO	5.44E-04 lb/ft3	7.36E-03 lb/lb	11:24:44	6/16/2011
2	70.5	49.4	58.1 °F	47.1 %RH	494 ppmCO2	0.1 ppmCO	5.51E-04 lb/ft3	7.45E-03 lb/lb	11:25:44	6/16/2011
2	70.6	49.8	58.3 °F	47.7 %RH	486 ppmCO2	0 ppmCO	5.59E-04 lb/ft3	7.56E-03 lb/lb	11:26:45	6/16/2011
2	70.4	49.9	58.3 °F	48.3 %RH	478 ppmCO2	0.1 ppmCO	5.62E-04 lb/ft3	7.61E-03 lb/lb	11:27:45	6/16/2011
2	70.4	50.1	58.4 °F	48.6 %RH	471 ppmCO2	0 ppmCO	5.66E-04 lb/ft3	7.65E-03 lb/lb	11:28:45	6/16/2011
2	70.4	50.3	58.5 °F	48.9 %RH	469 ppmCO2	0 ppmCO	5.70E-04 lb/ft3	7.71E-03 lb/lb	11:29:45	6/16/2011
2	70.2	50.3	58.4 °F	49.2 %RH	466 ppmCO2	0 ppmCO	5.70E-04 lb/ft3	7.71E-03 lb/lb	11:30:45	6/16/2011
2	70.2	50.3	58.4 °F	49.3 %RH	464 ppmCO2	0 ppmCO	5.72E-04 lb/ft3	7.73E-03 lb/lb	11:31:46	6/16/2011
2	70.2	50.4	58.5 °F	49.4 %RH	462 ppmCO2	0.1 ppmCO	5.72E-04 lb/ft3	7.74E-03 lb/lb	11:32:46	6/16/2011
2	70.3	50.5	58.5 °F	49.4 %RH	463 ppmCO2	0 ppmCO	5.74E-04 lb/ft3	7.76E-03 lb/lb	11:33:46	6/16/2011
2	70.3	50.5	58.5 °F	49.4 %RH	461 ppmCO2	0.1 ppmCO	5.74E-04 lb/ft3	7.77E-03 lb/lb	11:34:46	6/16/2011
2	70.3	50.4	58.5 °F	49.3 %RH	459 ppmCO2	-0.1 ppmCO	5.73E-04 lb/ft3	7.75E-03 lb/lb	11:35:46	6/16/2011
2	70.2	50.3	58.4 °F	49.2 %RH	460 ppmCO2	0 ppmCO	5.70E-04 lb/ft3	7.71E-03 lb/lb	11:36:47	6/16/2011
2	70.3	50.4	58.5 °F	49.2 %RH	458 ppmCO2	0.1 ppmCO	5.71E-04 lb/ft3	7.73E-03 lb/lb	11:37:47	6/16/2011
2	70.2	50.3	58.4 °F	49.2 %RH	456 ppmCO2	0 ppmCO	5.71E-04 lb/ft3	7.72E-03 lb/lb	11:38:47	6/16/2011
2	70.1	50.2	58.3 °F	49.2 %RH	455 ppmCO2	0.2 ppmCO	5.69E-04 lb/ft3	7.69E-03 lb/lb	11:39:47	6/16/2011
2	70.2	50.2	58.4 °F	49.1 %RH	454 ppmCO2	0.1 ppmCO	5.69E-04 lb/ft3	7.70E-03 lb/lb	11:40:47	6/16/2011
2	70.1	50.1	58.3 °F	49 %RH	453 ppmCO2	0 ppmCO	5.67E-04 lb/ft3	7.66E-03 lb/lb	11:41:48	6/16/2011
2	70.1	50.1	58.3 °F	48.9 %RH	452 ppmCO2	0 ppmCO	5.66E-04 lb/ft3	7.65E-03 lb/lb	11:42:48	6/16/2011
2	70.1	50	58.3 °F	48.9 %RH	451 ppmCO2	0.1 ppmCO	5.66E-04 lb/ft3	7.65E-03 lb/lb	11:43:48	6/16/2011
2	70.2	50.1	58.3 °F	48.8 %RH	450 ppmCO2	0 ppmCO	5.66E-04 lb/ft3	7.65E-03 lb/lb	11:44:48	6/16/2011
2	70.2	50.1	58.3 °F	48.8 %RH	449 ppmCO2	0.1 ppmCO	5.65E-04 lb/ft3	7.64E-03 lb/lb	11:45:48	6/16/2011
2	70.1	50	58.2 °F	48.8 %RH	449 ppmCO2	0 ppmCO	5.65E-04 lb/ft3	7.64E-03 lb/lb	11:46:49	6/16/2011
2	70.2	50.1	58.3 °F	48.9 %RH	452 ppmCO2	0 ppmCO	5.67E-04 lb/ft3	7.66E-03 lb/lb	11:47:49	6/16/2011
2	70.1	50	58.3 °F	48.8 %RH	452 ppmCO2	-0.1 ppmCO	5.64E-04 lb/ft3	7.63E-03 lb/lb	11:48:49	6/16/2011
2	70.2	49.9	58.2 °F	48.6 %RH	451 ppmCO2	0 ppmCO	5.63E-04 lb/ft3	7.62E-03 lb/lb	11:49:49	6/16/2011
2	70.2	49.9	58.2 °F	48.6 %RH	450 ppmCO2	0.1 ppmCO	5.63E-04 lb/ft3	7.62E-03 lb/lb	11:50:49	6/16/2011
2	70.1	49.9	58.2 °F	48.6 %RH	449 ppmCO2	0 ppmCO	5.62E-04 lb/ft3	7.60E-03 lb/lb	11:51:50	6/16/2011
2	70.2	49.9	58.2 °F	48.6 %RH	448 ppmCO2	0.1 ppmCO	5.63E-04 lb/ft3	7.62E-03 lb/lb	11:52:50	6/16/2011
2	70.1	49.8	58.1 °F	48.6 %RH	447 ppmCO2	-0.1 ppmCO	5.61E-04 lb/ft3	7.58E-03 lb/lb	11:53:50	6/16/2011
2	70.2	49.9	58.2 °F	48.6 %RH	444 ppmCO2	0.1 ppmCO	5.62E-04 lb/ft3	7.60E-03 lb/lb	11:54:50	6/16/2011
2	70.2	49.9	58.2 °F	48.6 %RH	444 ppmCO2	0 ppmCO	5.63E-04 lb/ft3	7.62E-03 lb/lb	11:55:50	6/16/2011
2	70.1	49.9	58.2 °F	48.6 %RH	443 ppmCO2	0 ppmCO	5.62E-04 lb/ft3	7.60E-03 lb/lb	11:56:51	6/16/2011
2	70.2	50	58.3 °F	48.7 %RH	444 ppmCO2	0.2 ppmCO	5.64E-04 lb/ft3	7.62E-03 lb/lb	11:57:51	6/16/2011

2	70.1	50	58.3 °F	48.9 %RH	442 ppmCO2	0 ppmCO	5.66E-04 lb/ft3	7.85E-03 lb/lb	11:58:51	6/16/2011
2	70.2	50.1	58.3 °F	48.9 %RH	443 ppmCO2	0 ppmCO	5.67E-04 lb/ft3	7.86E-03 lb/lb	11:59:51	6/16/2011
2	70.1	50	58.3 °F	48.9 %RH	443 ppmCO2	0 ppmCO	5.65E-04 lb/ft3	7.84E-03 lb/lb	12:00:51	6/16/2011
2	70.1	50	58.3 °F	48.9 %RH	443 ppmCO2	0 ppmCO	5.65E-04 lb/ft3	7.85E-03 lb/lb	12:01:52	6/16/2011
2	70.1	50	58.2 °F	49 %RH	442 ppmCO2	0 ppmCO	5.65E-04 lb/ft3	7.84E-03 lb/lb	12:02:52	6/16/2011
2	70	50	58.2 °F	49.2 %RH	441 ppmCO2	0.1 ppmCO	5.65E-04 lb/ft3	7.84E-03 lb/lb	12:03:52	6/16/2011
2	70	50.1	58.2 °F	49.2 %RH	440 ppmCO2	0.1 ppmCO	5.67E-04 lb/ft3	7.86E-03 lb/lb	12:04:52	6/16/2011
2	70	50.1	58.2 °F	49.2 %RH	439 ppmCO2	0 ppmCO	5.67E-04 lb/ft3	7.86E-03 lb/lb	12:05:53	6/16/2011
2	70	50.1	58.2 °F	49.2 %RH	439 ppmCO2	0.1 ppmCO	5.67E-04 lb/ft3	7.86E-03 lb/lb	12:06:53	6/16/2011
2	70	50.1	58.2 °F	49.2 %RH	438 ppmCO2	0 ppmCO	5.67E-04 lb/ft3	7.86E-03 lb/lb	12:07:53	6/16/2011
2	70.1	50.4	58.4 °F	49.6 %RH	449 ppmCO2	0 ppmCO	5.72E-04 lb/ft3	7.74E-03 lb/lb	12:08:53	6/16/2011
3	80.9	54.1	64.1 °F	39.5 %RH	909 ppmCO2	0 ppmCO	6.42E-04 lb/ft3	8.33E-03 lb/lb	13:39:29	6/16/2011
3	80.9	53.7	63.9 °F	39.1 %RH	802 ppmCO2	0 ppmCO	6.34E-04 lb/ft3	8.26E-03 lb/lb	13:40:29	6/16/2011
3	80.9	53.8	63.9 °F	39.2 %RH	769 ppmCO2	0 ppmCO	6.37E-04 lb/ft3	8.30E-03 lb/lb	13:41:29	6/16/2011
3	80.8	53.5	63.8 °F	38.9 %RH	747 ppmCO2	0 ppmCO	6.30E-04 lb/ft3	8.20E-03 lb/lb	13:42:29	6/16/2011
3	80.8	53.4	63.7 °F	38.8 %RH	736 ppmCO2	0 ppmCO	6.28E-04 lb/ft3	8.17E-03 lb/lb	13:43:29	6/16/2011
3	80.8	53.4	63.7 °F	38.8 %RH	731 ppmCO2	0 ppmCO	6.28E-04 lb/ft3	8.17E-03 lb/lb	13:44:30	6/16/2011
3	80.8	53.3	63.6 °F	38.8 %RH	732 ppmCO2	0 ppmCO	6.26E-04 lb/ft3	8.14E-03 lb/lb	13:45:30	6/16/2011
3	80.7	53.4	63.7 °F	39 %RH	731 ppmCO2	0 ppmCO	6.28E-04 lb/ft3	8.17E-03 lb/lb	13:46:30	6/16/2011
3	80.7	53.5	63.7 °F	39 %RH	732 ppmCO2	0 ppmCO	6.29E-04 lb/ft3	8.19E-03 lb/lb	13:47:30	6/16/2011
3	80.6	53.3	63.6 °F	38.9 %RH	727 ppmCO2	0 ppmCO	6.26E-04 lb/ft3	8.15E-03 lb/lb	13:48:30	6/16/2011
3	80.6	53.3	63.5 °F	38.8 %RH	723 ppmCO2	0 ppmCO	6.24E-04 lb/ft3	8.12E-03 lb/lb	13:49:31	6/16/2011
3	80.7	53.4	63.7 °F	38.9 %RH	721 ppmCO2	0 ppmCO	6.27E-04 lb/ft3	8.16E-03 lb/lb	13:50:31	6/16/2011
3	80.7	53.4	63.6 °F	38.8 %RH	721 ppmCO2	0 ppmCO	6.26E-04 lb/ft3	8.14E-03 lb/lb	13:51:31	6/16/2011
3	80.8	53.4	63.7 °F	38.8 %RH	723 ppmCO2	0 ppmCO	6.27E-04 lb/ft3	8.17E-03 lb/lb	13:52:31	6/16/2011
3	80.7	53.3	63.6 °F	38.7 %RH	718 ppmCO2	0 ppmCO	6.25E-04 lb/ft3	8.13E-03 lb/lb	13:53:31	6/16/2011
3	80.7	53.2	63.6 °F	38.6 %RH	718 ppmCO2	0 ppmCO	6.24E-04 lb/ft3	8.12E-03 lb/lb	13:54:32	6/16/2011
3	80.7	53.2	63.6 °F	38.6 %RH	716 ppmCO2	0 ppmCO	6.23E-04 lb/ft3	8.11E-03 lb/lb	13:55:32	6/16/2011
3	80.8	53.2	63.6 °F	38.6 %RH	715 ppmCO2	0 ppmCO	6.24E-04 lb/ft3	8.12E-03 lb/lb	13:56:32	6/16/2011
3	80.6	53	63.4 °F	38.4 %RH	713 ppmCO2	0 ppmCO	6.17E-04 lb/ft3	8.03E-03 lb/lb	13:57:32	6/16/2011
3	80.6	53.1	63.5 °F	38.6 %RH	716 ppmCO2	0 ppmCO	6.20E-04 lb/ft3	8.06E-03 lb/lb	13:58:33	6/16/2011
3	80.7	53.2	63.6 °F	38.7 %RH	722 ppmCO2	0 ppmCO	6.24E-04 lb/ft3	8.11E-03 lb/lb	13:59:33	6/16/2011
3	80.8	53.3	63.7 °F	38.7 %RH	727 ppmCO2	0 ppmCO	6.26E-04 lb/ft3	8.15E-03 lb/lb	14:00:33	6/16/2011
3	80.7	53.2	63.6 °F	38.7 %RH	726 ppmCO2	0 ppmCO	6.24E-04 lb/ft3	8.12E-03 lb/lb	14:01:33	6/16/2011
3	80.8	53.3	63.7 °F	38.7 %RH	726 ppmCO2	0 ppmCO	6.27E-04 lb/ft3	8.16E-03 lb/lb	14:02:33	6/16/2011
3	80.8	53.3	63.7 °F	38.7 %RH	729 ppmCO2	0 ppmCO	6.26E-04 lb/ft3	8.15E-03 lb/lb	14:03:34	6/16/2011
3	80.8	53.4	63.7 °F	38.8 %RH	734 ppmCO2	0 ppmCO	6.27E-04 lb/ft3	8.16E-03 lb/lb	14:04:34	6/16/2011
3	80.8	53.3	63.7 °F	38.7 %RH	735 ppmCO2	0 ppmCO	6.26E-04 lb/ft3	8.15E-03 lb/lb	14:05:34	6/16/2011
3	80.8	53.4	63.7 °F	38.8 %RH	734 ppmCO2	0 ppmCO	6.27E-04 lb/ft3	8.16E-03 lb/lb	14:06:34	6/16/2011
3	80.8	53.4	63.7 °F	38.8 %RH	732 ppmCO2	0 ppmCO	6.26E-04 lb/ft3	8.15E-03 lb/lb	14:07:34	6/16/2011
3	80.8	53.3	63.7 °F	38.7 %RH	730 ppmCO2	0 ppmCO	6.27E-04 lb/ft3	8.16E-03 lb/lb	14:08:35	6/16/2011
3	80.8	53.3	63.7 °F	38.7 %RH	730 ppmCO2	0 ppmCO	6.26E-04 lb/ft3	8.15E-03 lb/lb	14:09:35	6/16/2011
3	80.8	53.3	63.7 °F	38.7 %RH	729 ppmCO2	0 ppmCO	6.26E-04 lb/ft3	8.15E-03 lb/lb	14:10:35	6/16/2011
3	80.8	53.3	63.7 °F	38.7 %RH	727 ppmCO2	0 ppmCO	6.26E-04 lb/ft3	8.15E-03 lb/lb	14:11:35	6/16/2011
3	80.8	53.3	63.7 °F	38.6 %RH	727 ppmCO2	0 ppmCO	6.25E-04 lb/ft3	8.14E-03 lb/lb	14:12:35	6/16/2011
3	80.8	53.3	63.7 °F	38.7 %RH	725 ppmCO2	0 ppmCO	6.26E-04 lb/ft3	8.14E-03 lb/lb	14:13:36	6/16/2011
3	80.8	53.3	63.7 °F	38.7 %RH	726 ppmCO2	0 ppmCO	6.26E-04 lb/ft3	8.14E-03 lb/lb	14:14:36	6/16/2011
3	80.8	53.3	63.7 °F	38.7 %RH	723 ppmCO2	0 ppmCO	6.25E-04 lb/ft3	8.14E-03 lb/lb	14:15:36	6/16/2011
3	80.8	53.3	63.7 °F	38.7 %RH	719 ppmCO2	0 ppmCO	6.25E-04 lb/ft3	8.14E-03 lb/lb	14:16:36	6/16/2011
3	80.8	53.2	63.6 °F	38.5 %RH	716 ppmCO2	0 ppmCO	6.22E-04 lb/ft3	8.09E-03 lb/lb	14:17:36	6/16/2011
3	80.8	53.2	63.6 °F	38.5 %RH	714 ppmCO2	0 ppmCO	6.23E-04 lb/ft3	8.10E-03 lb/lb	14:18:37	6/16/2011
3	80.8	53.2	63.6 °F	38.5 %RH	712 ppmCO2	-0.1 ppmCO	6.22E-04 lb/ft3	8.09E-03 lb/lb	14:19:37	6/16/2011
3	80.8	53.1	63.6 °F	38.4 %RH	710 ppmCO2	0 ppmCO	6.21E-04 lb/ft3	8.08E-03 lb/lb	14:20:37	6/16/2011
3	80.8	53.1	63.5 °F	38.4 %RH	711 ppmCO2	0 ppmCO	6.20E-04 lb/ft3	8.07E-03 lb/lb	14:21:37	6/16/2011
3	80.8	53.1	63.5 °F	38.3 %RH	711 ppmCO2	0 ppmCO	6.20E-04 lb/ft3	8.06E-03 lb/lb	14:22:37	6/16/2011
3	80.7	53	63.5 °F	38.3 %RH	716 ppmCO2	0 ppmCO	6.18E-04 lb/ft3	8.04E-03 lb/lb	14:23:38	6/16/2011
3	80.8	53.2	63.6 °F	38.4 %RH	717 ppmCO2	0 ppmCO	6.22E-04 lb/ft3	8.09E-03 lb/lb	14:24:38	6/16/2011
3	80.9	53.4	63.7 °F	38.6 %RH	725 ppmCO2	0 ppmCO	6.27E-04 lb/ft3	8.16E-03 lb/lb	14:25:38	6/16/2011
3	80.8	53.1	63.6 °F	38.4 %RH	729 ppmCO2	0 ppmCO	6.21E-04 lb/ft3	8.08E-03 lb/lb	14:26:38	6/16/2011
3	80.9	53.3	63.7 °F	38.5 %RH	726 ppmCO2	0 ppmCO	6.25E-04 lb/ft3	8.13E-03 lb/lb	14:27:38	6/16/2011
3	80.8	53.1	63.5 °F	38.3 %RH	723 ppmCO2	0 ppmCO	6.20E-04 lb/ft3	8.07E-03 lb/lb	14:28:39	6/16/2011
3	80.8	53.1	63.5 °F	38.4 %RH	721 ppmCO2	0 ppmCO	6.20E-04 lb/ft3	8.06E-03 lb/lb	14:29:39	6/16/2011
3	80.7	53.1	63.5 °F	38.4 %RH	722 ppmCO2	0 ppmCO	6.20E-04 lb/ft3	8.06E-03 lb/lb	14:30:39	6/16/2011
3	80.8	53.2	63.6 °F	38.6 %RH	720 ppmCO2	0 ppmCO	6.24E-04 lb/ft3	8.12E-03 lb/lb	14:31:39	6/16/2011
3	80.8	53.3	63.7 °F	38.6 %RH	720 ppmCO2	0 ppmCO	6.25E-04 lb/ft3	8.14E-03 lb/lb	14:32:39	6/16/2011
3	80.8	53.3	63.6 °F	38.6 %RH	718 ppmCO2	0 ppmCO	6.24E-04 lb/ft3	8.12E-03 lb/lb	14:33:40	6/16/2011
3	80.8	53.2	63.6 °F	38.5 %RH	714 ppmCO2	0 ppmCO	6.23E-04 lb/ft3	8.10E-03 lb/lb	14:34:40	6/16/2011
3	80.8	53.1	63.6 °F	38.4 %RH	713 ppmCO2	0 ppmCO	6.21E-04 lb/ft3	8.08E-03 lb/lb	14:35:40	6/16/2011
3	80.8	53.2	63.6 °F	38.5 %RH	712 ppmCO2	-0.1 ppmCO	6.23E-04 lb/ft3	8.11E-03 lb/lb	14:36:40	6/16/2011
3	80.7	53.1	63.5 °F	38.4 %RH	712 ppmCO2	0 ppmCO	6.20E-04 lb/ft3	8.07E-03 lb/lb	14:37:40	6/16/2011
3	80.8	53.1	63.6 °F	38.4 %RH	708 ppmCO2	0 ppmCO	6.21E-04 lb/ft3	8.08E-03 lb/lb	14:38:41	6/16/2011
3	80.8	53.1	63.5 °F	38.3 %RH	705 ppmCO2	0 ppmCO	6.20E-04 lb/ft3	8.06E-03 lb/lb	14:39:41	6/16/2011
3	80.8	53.1	63.5 °F	38.3 %RH	701 ppmCO2	0 ppmCO	6.20E-04 lb/ft3	8.07E-03 lb/lb	14:40:41	6/16/2011
3	80.8	53.1	63.6 °F	38.4 %RH	702 ppmCO2	0 ppmCO	6.21E-04 lb/ft3	8.08E-03 lb/lb	14:41:41	6/16/2011
3	80.8	53.1	63.6 °F	38.4 %RH	706 ppmCO2	0 ppmCO	6.21E-04 lb/ft3	8.08E-03 lb/lb	14:42:42	6/16/2011
3	80.8	53.1	63.6 °F	38.4 %RH	706 ppmCO2	0 ppmCO	6.21E-04 lb/ft3	8.08E-03 lb/lb	14:43:42	6/16/2011
3	80.8	53.1	63.6 °F	38.4 %RH	709 ppmCO2	0 ppmCO	6.21E-04 lb/ft3	8.08E-03 lb/lb	14:44:42	6/16/2011
3	80.8	53.2	63.6 °F	38.5 %RH	711 ppmCO2	0 ppmCO	6.23E-04 lb/ft3	8.11E-03 lb/lb	14:45:43	6/16/2011
3	80.8	53.1	63.5 °F	38.3 %RH	708 ppmCO2	0 ppmCO	6.20E-04 lb/ft3	8.07E-03 lb/lb	14:46:43	6/16/2011
3	80.8	53.1	63.5 °F	38.3 %RH	704 ppmCO2	0 ppmCO	6.20E-04 lb/ft3	8.07E-03 lb/lb	14:47:43	6/16/2011
3	80.9	53.2	63.6 °F	38.4 %RH	702 ppmCO2	-0.1 ppmCO	6.22E-04 lb/ft3	8.09E-03 lb/lb	14:48:43	6/16/2011
3	80.8	53.1	63.5 °F	38.3 %RH	699 ppmCO2	0 ppmCO	6.20E-04 lb/ft3	8.06E-03 lb/lb	14:49:43	6/16/2011
3	80.8	53.1	63.5 °F	38.3 %RH	694 ppmCO2	0 ppmCO	6.19E-04 lb/ft3	8.05E-03 lb/lb	14:50:43	6/16/2011
3	80.8	53.1	63.5 °F	38.3 %RH	692 ppmCO2	0 ppmCO	6.20E-04 lb/ft3	8.06E-03 lb/lb	14:51:44	6/16/2011
3	80.8	53.1	63.5 °F	38.3 %RH	693 ppmCO2	0 ppmCO	6.19E-04 lb/ft3	8.05E-03 lb/lb	14:52:44	6/16/2011
3	80.7	53	63.5 °F	38.3 %RH	697 ppmCO2	0 ppmCO	6.19E-04 lb/ft3	8.04E-03 lb/lb	14:53:44	6/16/2011
3	80.8	53.2	63.6 °F	38.4 %RH	701 ppmCO2	0 ppmCO	6.21E-04 lb/ft3	8.08E-03 lb/lb	14:54:44	6/16/2011
3	80.8	53.1	63.5 °F	38.3 %RH	704 ppmCO2	0 ppmCO	6.19E-04 lb/ft3	8.06E-03 lb/lb	14:55:44	6/16/2011
3	80.9	53.2	63.6 °F	38.4 %RH	711 ppmCO2	0 ppmCO	6.23E-04 lb/ft3	8.11E-03 lb/lb	14:56:44	6/16/2011
3	80.9	53.3	63.7 °F	38.5 %RH	713 ppmCO2	0 ppmCO	6.25E-04 lb/ft3	8.13E-03 lb/lb	14:57:45	6/16/2011

3	80.9	53.2	636 °F	38.4 %RH	719 ppmCO2	0 ppmCO	6.23E-04 lb/ft3	8.61E-03 lb/lb	14:58:45	6/16/2011
3	80.9	53.2	636 °F	38.4 %RH	721 ppmCO2	0 ppmCO	6.23E-04 lb/ft3	8.61E-03 lb/lb	14:59:45	6/16/2011
3	80.9	53.2	636 °F	38.3 %RH	723 ppmCO2	0 ppmCO	6.22E-04 lb/ft3	8.60E-03 lb/lb	15:00:45	6/16/2011
3	80.9	53.2	636 °F	38.4 %RH	720 ppmCO2	0 ppmCO	6.22E-04 lb/ft3	8.59E-03 lb/lb	15:01:45	6/16/2011
3	81	53.4	637 °F	38.4 %RH	721 ppmCO2	0 ppmCO	6.26E-04 lb/ft3	8.66E-03 lb/lb	15:02:46	6/16/2011
3	80.9	53.1	636 °F	38.4 %RH	722 ppmCO2	0 ppmCO	6.21E-04 lb/ft3	8.58E-03 lb/lb	15:03:46	6/16/2011
3	80.9	53.1	636 °F	38.4 %RH	716 ppmCO2	0 ppmCO	6.21E-04 lb/ft3	8.58E-03 lb/lb	15:04:46	6/16/2011
3	80.9	53.1	636 °F	38.2 %RH	713 ppmCO2	0 ppmCO	6.19E-04 lb/ft3	8.56E-03 lb/lb	15:05:46	6/16/2011
3	80.8	52.9	635 °F	38.1 %RH	713 ppmCO2	0 ppmCO	6.16E-04 lb/ft3	8.51E-03 lb/lb	15:06:46	6/16/2011
3	80.9	53.1	636 °F	38.2 %RH	709 ppmCO2	0 ppmCO	6.20E-04 lb/ft3	8.57E-03 lb/lb	15:07:47	6/16/2011
3	80.9	53	635 °F	38.1 %RH	712 ppmCO2	0 ppmCO	6.18E-04 lb/ft3	8.54E-03 lb/lb	15:08:47	6/16/2011
3	80.9	53.1	636 °F	38.2 %RH	706 ppmCO2	0 ppmCO	6.20E-04 lb/ft3	8.57E-03 lb/lb	15:09:47	6/16/2011
3	80.9	53.1	636 °F	38.1 %RH	699 ppmCO2	0 ppmCO	6.19E-04 lb/ft3	8.56E-03 lb/lb	15:10:47	6/16/2011
3	80.8	52.9	634 °F	38 %RH	697 ppmCO2	0 ppmCO	6.16E-04 lb/ft3	8.51E-03 lb/lb	15:11:47	6/16/2011
3	80.8	52.9	634 °F	38.1 %RH	694 ppmCO2	0 ppmCO	6.16E-04 lb/ft3	8.51E-03 lb/lb	15:12:48	6/16/2011
3	80.9	53	635 °F	38.1 %RH	695 ppmCO2	0 ppmCO	6.17E-04 lb/ft3	8.53E-03 lb/lb	15:13:48	6/16/2011
3	80.9	53	635 °F	38.1 %RH	695 ppmCO2	0.1 ppmCO	6.19E-04 lb/ft3	8.55E-03 lb/lb	15:14:48	6/16/2011
3	81	53.1	636 °F	38.1 %RH	697 ppmCO2	0 ppmCO	6.20E-04 lb/ft3	8.56E-03 lb/lb	15:15:48	6/16/2011
3	81.1	53.2	637 °F	38.1 %RH	704 ppmCO2	0 ppmCO	6.23E-04 lb/ft3	8.60E-03 lb/lb	15:16:49	6/16/2011
3	80.9	53	635 °F	38 %RH	709 ppmCO2	0 ppmCO	6.17E-04 lb/ft3	8.52E-03 lb/lb	15:17:49	6/16/2011
3	81	53	636 °F	38 %RH	708 ppmCO2	0 ppmCO	6.19E-04 lb/ft3	8.55E-03 lb/lb	15:18:49	6/16/2011
3	81	52.9	635 °F	37.9 %RH	705 ppmCO2	0 ppmCO	6.16E-04 lb/ft3	8.52E-03 lb/lb	15:19:49	6/16/2011
3	81	53	635 °F	37.8 %RH	703 ppmCO2	0 ppmCO	6.17E-04 lb/ft3	8.52E-03 lb/lb	15:20:49	6/16/2011
3	81.1	53	636 °F	37.8 %RH	708 ppmCO2	0 ppmCO	6.18E-04 lb/ft3	8.55E-03 lb/lb	15:21:50	6/16/2011
3	81.1	53	636 °F	37.8 %RH	707 ppmCO2	0 ppmCO	6.17E-04 lb/ft3	8.52E-03 lb/lb	15:22:50	6/16/2011
3	81	52.9	635 °F	37.8 %RH	704 ppmCO2	0 ppmCO	6.15E-04 lb/ft3	8.50E-03 lb/lb	15:23:50	6/16/2011
3	81	52.9	635 °F	37.8 %RH	702 ppmCO2	0 ppmCO	6.15E-04 lb/ft3	8.50E-03 lb/lb	15:24:51	6/16/2011
3	81.1	53	636 °F	37.8 %RH	701 ppmCO2	0 ppmCO	6.17E-04 lb/ft3	8.52E-03 lb/lb	15:25:50	6/16/2011
3	81.1	52.9	636 °F	37.8 %RH	704 ppmCO2	0.1 ppmCO	6.19E-04 lb/ft3	8.55E-03 lb/lb	15:26:51	6/16/2011
3	81.1	53	636 °F	37.8 %RH	704 ppmCO2	0.1 ppmCO	6.17E-04 lb/ft3	8.52E-03 lb/lb	15:27:51	6/16/2011
3	81.1	52.9	636 °F	37.8 %RH	702 ppmCO2	0 ppmCO	6.16E-04 lb/ft3	8.51E-03 lb/lb	15:28:51	6/16/2011
3	81.1	52.9	636 °F	37.7 %RH	703 ppmCO2	0 ppmCO	6.16E-04 lb/ft3	8.51E-03 lb/lb	15:29:51	6/16/2011
3	81.1	53	636 °F	37.8 %RH	703 ppmCO2	0 ppmCO	6.17E-04 lb/ft3	8.53E-03 lb/lb	15:30:51	6/16/2011
3	81.1	53	636 °F	37.8 %RH	703 ppmCO2	0 ppmCO	6.17E-04 lb/ft3	8.53E-03 lb/lb	15:31:52	6/16/2011
3	81.2	53.1	637 °F	37.8 %RH	704 ppmCO2	0 ppmCO	6.20E-04 lb/ft3	8.57E-03 lb/lb	15:32:52	6/16/2011
3	81.3	53.1	637 °F	37.8 %RH	706 ppmCO2	0 ppmCO	6.21E-04 lb/ft3	8.58E-03 lb/lb	15:33:52	6/16/2011
3	81.3	53.2	638 °F	37.8 %RH	707 ppmCO2	0 ppmCO	6.22E-04 lb/ft3	8.60E-03 lb/lb	15:34:53	6/16/2011
3	81.1	53.1	637 °F	38 %RH	705 ppmCO2	0 ppmCO	6.21E-04 lb/ft3	8.58E-03 lb/lb	15:35:52	6/16/2011
3	81.1	53.3	637 °F	38.3 %RH	731 ppmCO2	0 ppmCO	6.24E-04 lb/ft3	8.63E-03 lb/lb	15:36:53	6/16/2011
3	81.1	53.3	637 °F	38.3 %RH	731 ppmCO2	0 ppmCO	6.25E-04 lb/ft3	8.63E-03 lb/lb	15:37:53	6/16/2011
3	81.1	53.3	637 °F	38.2 %RH	720 ppmCO2	0 ppmCO	6.23E-04 lb/ft3	8.61E-03 lb/lb	15:38:53	6/16/2011
3	81.2	53.4	638 °F	38.3 %RH	721 ppmCO2	0 ppmCO	6.28E-04 lb/ft3	8.68E-03 lb/lb	15:39:53	6/16/2011
3	81.1	53.3	637 °F	38.2 %RH	721 ppmCO2	0 ppmCO	6.24E-04 lb/ft3	8.63E-03 lb/lb	15:40:53	6/16/2011
3	81.2	53.4	638 °F	38.2 %RH	721 ppmCO2	0 ppmCO	6.27E-04 lb/ft3	8.66E-03 lb/lb	15:41:54	6/16/2011
3	81.3	53.6	639 °F	38.4 %RH	739 ppmCO2	0 ppmCO	6.30E-04 lb/ft3	8.72E-03 lb/lb	15:42:54	6/16/2011
3	81.4	53.7	64 °F	38.4 %RH	753 ppmCO2	0 ppmCO	6.33E-04 lb/ft3	8.76E-03 lb/lb	15:43:54	6/16/2011
3	81.3	53.6	639 °F	38.4 %RH	759 ppmCO2	0 ppmCO	6.32E-04 lb/ft3	8.73E-03 lb/lb	15:44:54	6/16/2011
3	81.3	53.6	639 °F	38.4 %RH	752 ppmCO2	0 ppmCO	6.31E-04 lb/ft3	8.72E-03 lb/lb	15:45:54	6/16/2011
3	81.5	53.8	641 °F	38.4 %RH	755 ppmCO2	0 ppmCO	6.34E-04 lb/ft3	8.77E-03 lb/lb	15:46:55	6/16/2011
3	81.5	53.8	641 °F	38.4 %RH	755 ppmCO2	0 ppmCO	6.35E-04 lb/ft3	8.78E-03 lb/lb	15:47:55	6/16/2011
3	81.6	53.8	641 °F	38.4 %RH	761 ppmCO2	0 ppmCO	6.36E-04 lb/ft3	8.80E-03 lb/lb	15:48:55	6/16/2011
3	81.5	53.8	641 °F	38.4 %RH	759 ppmCO2	0 ppmCO	6.34E-04 lb/ft3	8.77E-03 lb/lb	15:49:55	6/16/2011
3	81.6	53.8	641 °F	38.3 %RH	755 ppmCO2	0 ppmCO	6.34E-04 lb/ft3	8.78E-03 lb/lb	15:50:55	6/16/2011
3	81.4	53.5	64 °F	38.2 %RH	750 ppmCO2	0 ppmCO	6.30E-04 lb/ft3	8.72E-03 lb/lb	15:51:56	6/16/2011
3	81.5	53.7	641 °F	38.4 %RH	752 ppmCO2	0 ppmCO	6.34E-04 lb/ft3	8.77E-03 lb/lb	15:52:56	6/16/2011
3	81.5	53.8	641 °F	38.4 %RH	755 ppmCO2	0 ppmCO	6.35E-04 lb/ft3	8.78E-03 lb/lb	15:53:56	6/16/2011
3	81.5	53.8	641 °F	38.5 %RH	755 ppmCO2	0 ppmCO	6.35E-04 lb/ft3	8.79E-03 lb/lb	15:54:56	6/16/2011
3	81.5	53.8	641 °F	38.4 %RH	756 ppmCO2	0 ppmCO	6.35E-04 lb/ft3	8.79E-03 lb/lb	15:55:57	6/16/2011
3	81.5	53.8	641 °F	38.5 %RH	753 ppmCO2	0 ppmCO	6.36E-04 lb/ft3	8.80E-03 lb/lb	15:56:57	6/16/2011
3	81.6	53.9	642 °F	38.5 %RH	761 ppmCO2	0 ppmCO	6.39E-04 lb/ft3	8.84E-03 lb/lb	15:57:57	6/16/2011
3	81.5	53.8	641 °F	38.4 %RH	762 ppmCO2	0 ppmCO	6.35E-04 lb/ft3	8.79E-03 lb/lb	15:58:57	6/16/2011
3	81.5	53.8	641 °F	38.5 %RH	759 ppmCO2	0 ppmCO	6.36E-04 lb/ft3	8.80E-03 lb/lb	15:59:57	6/16/2011
3	81.4	53.8	641 °F	38.6 %RH	756 ppmCO2	0 ppmCO	6.36E-04 lb/ft3	8.80E-03 lb/lb	16:00:58	6/16/2011
3	81.4	53.7	641 °F	38.5 %RH	747 ppmCO2	0 ppmCO	6.35E-04 lb/ft3	8.79E-03 lb/lb	16:01:58	6/16/2011
3	81.3	53.8	64 °F	38.6 %RH	740 ppmCO2	0 ppmCO	6.35E-04 lb/ft3	8.78E-03 lb/lb	16:02:58	6/16/2011
3	81.5	54	642 °F	38.7 %RH	748 ppmCO2	0 ppmCO	6.40E-04 lb/ft3	8.85E-03 lb/lb	16:03:59	6/16/2011
3	81.6	53.9	642 °F	38.5 %RH	759 ppmCO2	0 ppmCO	6.39E-04 lb/ft3	8.85E-03 lb/lb	16:04:58	6/16/2011
3	81.6	53.8	642 °F	38.3 %RH	758 ppmCO2	0 ppmCO	6.36E-04 lb/ft3	8.81E-03 lb/lb	16:05:59	6/16/2011
3	81.6	53.7	641 °F	38.2 %RH	750 ppmCO2	0 ppmCO	6.34E-04 lb/ft3	8.77E-03 lb/lb	16:06:59	6/16/2011
3	82.6	53.7	641 °F	38.2 %RH	743 ppmCO2	0 ppmCO	6.33E-04 lb/ft3	8.76E-03 lb/lb	16:07:59	6/16/2011
3	81.4	53.5	64 °F	38.2 %RH	734 ppmCO2	0 ppmCO	6.30E-04 lb/ft3	8.71E-03 lb/lb	16:09:00	6/16/2011
3	81.5	53.6	64 °F	38.2 %RH	734 ppmCO2	0 ppmCO	6.31E-04 lb/ft3	8.73E-03 lb/lb	16:09:59	6/16/2011
3	81.4	53.5	639 °F	38.2 %RH	731 ppmCO2	0 ppmCO	6.29E-04 lb/ft3	8.70E-03 lb/lb	16:11:00	6/16/2011
3	81.3	53.4	639 °F	38.2 %RH	724 ppmCO2	0 ppmCO	6.28E-04 lb/ft3	8.69E-03 lb/lb	16:12:00	6/16/2011
3	81.3	53.6	639 °F	38.4 %RH	718 ppmCO2	0 ppmCO	6.31E-04 lb/ft3	8.73E-03 lb/lb	16:13:00	6/16/2011
3	81.2	53.6	639 °F	38.5 %RH	712 ppmCO2	0 ppmCO	6.30E-04 lb/ft3	8.72E-03 lb/lb	16:14:00	6/16/2011
3	81.3	53.6	639 °F	38.4 %RH	709 ppmCO2	0 ppmCO	6.31E-04 lb/ft3	8.72E-03 lb/lb	16:15:00	6/16/2011
3	81.3	53.6	639 °F	38.4 %RH	705 ppmCO2	0 ppmCO	6.31E-04 lb/ft3	8.72E-03 lb/lb	16:16:01	6/16/2011
3	81.4	53.6	64 °F	38.3 %RH	703 ppmCO2	0 ppmCO	6.31E-04 lb/ft3	8.73E-03 lb/lb	16:17:01	6/16/2011
3	81.3	53.4	639 °F	38.2 %RH	702 ppmCO2	0 ppmCO	6.28E-04 lb/ft3	8.69E-03 lb/lb	16:18:01	6/16/2011
3	81.3	53.5	639 °F	38.3 %RH	704 ppmCO2	0 ppmCO	6.29E-04 lb/ft3	8.69E-03 lb/lb	16:19:01	6/16/2011
3	81.3	53.6	639 °F	38.4 %RH	701 ppmCO2	0 ppmCO	6.31E-04 lb/ft3	8.72E-03 lb/lb	16:20:01	6/16/2011
3	81.3	53.6	639 °F	38.4 %RH	699 ppmCO2	0 ppmCO	6.31E-04 lb/ft3	8.73E-03 lb/lb	16:21:02	6/16/2011
3	81.3	53.6	639 °F	38.4 %RH	703 ppmCO2	0 ppmCO	6.31E-04 lb/ft3	8.73E-03 lb/lb	16:22:02	6/16/2011
3	81.3	53.4	639 °F	38.2 %RH	700 ppmCO2	0 ppmCO	6.28E-04 lb/ft3	8.69E-03 lb/lb	16:23:02	6/16/2011
3	81.3	53.4	639 °F	38.2 %RH	699 ppmCO2	0 ppmCO	6.28E-04 lb/ft3	8.69E-03 lb/lb	16:24:02	6/16/2011
3	81.4	53.5	639 °F	38.2 %RH	697 ppmCO2	0 ppmCO	6.29E-04 lb/ft3	8.70E-03 lb/lb	16:25:02	6/16/2011
3	81.5	53.6	64 °F	38.2 %RH	696 ppmCO2	0 ppmCO	6.31E-04 lb/ft3	8.73E-03 lb/lb	16:26:03	6/16/2011
3	81.5	53.5	64 °F	38.1 %RH	696 ppmCO2	0 ppmCO	6.30E-04 lb/ft3	8.72E-03 lb/lb	16:27:03	6/16/2011
3	81.5	53.4	639 °F	37.9 %RH	694 ppmCO2	0 ppmCO	6.28E-04 lb/ft3	8.68E-03 lb/lb	16:28:03	6/16/2011

4	81.4	54.2	63.8 °F	37.8 %RH	496 ppmCO2	0 ppmCO	6.29E-04 lb/ft3	8.62E-03 lb/lb	16:29:03	6/16/2011
4	80.6	54.8	64.1 °F	41 %RH	428 ppmCO2	0 ppmCO	6.60E-04 lb/ft3	9.12E-03 lb/lb	16:33:41	6/16/2011
4	80.9	54.8	64.3 °F	40.4 %RH	434 ppmCO2	0 ppmCO	6.55E-04 lb/ft3	9.05E-03 lb/lb	16:34:41	6/16/2011
4	80.8	54.5	64.1 °F	41 %RH	435 ppmCO2	0 ppmCO	6.47E-04 lb/ft3	8.95E-03 lb/lb	16:35:42	6/16/2011
4	80.9	54.5	64.2 °F	41 %RH	436 ppmCO2	0.1 ppmCO	6.49E-04 lb/ft3	8.97E-03 lb/lb	16:36:42	6/16/2011
4	81.2	54.8	64.3 °F	40.2 %RH	444 ppmCO2	0 ppmCO	6.59E-04 lb/ft3	9.12E-03 lb/lb	16:37:42	6/16/2011
4	81.5	54.9	64.6 °F	39.9 %RH	454 ppmCO2	0 ppmCO	6.60E-04 lb/ft3	9.14E-03 lb/lb	16:38:42	6/16/2011
4	82.3	54.8	64.7 °F	38.4 %RH	460 ppmCO2	0.1 ppmCO	6.49E-04 lb/ft3	9.00E-03 lb/lb	16:39:42	6/16/2011
4	82.3	54.7	64.8 °F	38.7 %RH	465 ppmCO2	0 ppmCO	6.55E-04 lb/ft3	9.09E-03 lb/lb	16:40:43	6/16/2011
4	82.2	53.8	64.4 °F	37.6 %RH	465 ppmCO2	0 ppmCO	6.36E-04 lb/ft3	8.81E-03 lb/lb	16:41:43	6/16/2011
4	81.6	53.2	63.9 °F	37.3 %RH	463 ppmCO2	0 ppmCO	6.21E-04 lb/ft3	8.60E-03 lb/lb	16:42:44	6/16/2011
4	81.4	53.4	63.9 °F	38.1 %RH	455 ppmCO2	0 ppmCO	6.27E-04 lb/ft3	8.67E-03 lb/lb	16:43:43	6/16/2011
4	81.7	54	64.2 °F	38.5 %RH	452 ppmCO2	0 ppmCO	6.40E-04 lb/ft3	8.85E-03 lb/lb	16:44:44	6/16/2011

* NO DATA

TESTID	COUNT	MINIMUM	MAXIMUM	AVERAGE	UNITS	BARO PRESS
1	43	75.7	78.4	76.7	°F	
1	43	38.0	44.6	40.6	%RH	
1	43	49.3	53.6	51	Dewpt°F	
1	43	60.1	62.8	61.1	WB °F	29.92 in Hg
1	43	411	460	439	ppmCO2	29.92 in Hg
1	43	0	0	0	ppmCO	29.92 in Hg
1	43	5.43E-04	6.35E-04	5.78E-04	lb/ft3	29.92 in Hg
1	43	7.43E-03	8.73E-03	7.92E-03	lb/lb	29.92 in Hg
2	144	69.1	73	70.5	°F	
2	144	42.7	50.4	47.3	%RH	
2	144	47.4	50.9	49.4	Dewpt°F	
2	144	57.1	59.7	58.1	WB °F	29.92 in Hg
2	144	433	562	463	ppmCO2	29.92 in Hg
2	144	0	0	0	ppmCO	29.92 in Hg
2	144	5.11E-04	5.84E-04	5.52E-04	lb/ft3	29.92 in Hg
2	144	6.92E-03	7.90E-03	7.47E-03	lb/lb	29.92 in Hg
3	170	80.4	81.8	81	°F	
3	170	37.7	40.2	38.4	%RH	
3	170	52.7	54.6	53.3	Dewpt°F	
3	170	63.2	64.3	63.7	WB °F	29.92 in Hg
3	170	688	1005	722	ppmCO2	29.92 in Hg
3	170	0	0	0	ppmCO	29.92 in Hg
3	170	6.11E-04	6.54E-04	6.25E-04	lb/ft3	29.92 in Hg
3	170	8.44E-03	9.05E-03	8.64E-03	lb/lb	29.92 in Hg
4	12	80.2	82.9	81.5	°F	
4	12	37	41.6	39.2	%RH	
4	12	52.8	55.5	54.3	Dewpt°F	
4	12	63.5	65	64.3	WB °F	29.92 in Hg
4	12	424	478	449	ppmCO2	29.92 in Hg
4	12	0	0	0	ppmCO	29.92 in Hg
4	12	6.13E-04	6.76E-04	6.46E-04	lb/ft3	29.92 in Hg
4	12	8.47E-03	9.37E-03	8.95E-03	lb/lb	29.92 in Hg

DICK MUNNS COMPANY

ACCREDITED
CL-122

CERTIFICATE OF CALIBRATION

Customer Name:	HEALTH SCIENCE	Calibration Date:	10-21-2010
PO Number:		Calibration Due:	10-21-2011
Instrument Manufacturer:	TSI	Calibration Fluid:	70F
Instrument Description:	IAQ MONITOR	Standard(s) Used:	A5 DUE 2-2011
Model Number:	8762	NIST Traceability Per:	1219670781,1222859163
Serial Number:	55070243	Ambient Conditions:	757 mmHGA 55% RH 70F
Rated Uncertainty:	SEE TABLE **	Procedure Number:	NAVAIR-17-20MH-20
Uncertainty Given:	+/- 2.11% RD. ;K=2	Certificate/File Number:	420262.2010B

AS REC./AS LEFT WITHIN SPECS.
* CO2 ADJUSTED **
REFERENCE CONDITIONS ARE: 760mmHGA 70F.

INDICATED UUT	ACTUAL DM.STD.		INDICATED INDICATED	ACTUAL ACTUAL
CO2 PPM +|- 3% RD.	CO2 PPM		CO PPM +|- 3% RD.	CO PPM
0 TO 5000 PPM 503	0 TO 5000 PPM 500		0 TO 500 PPM 51	0 TO 500 PPM 50
TEMPERATURE °F +|-1.0°F	TEMPERATURE °F		HUMIDITY % RH +|- 3% RH	HUMIDITY % RH
32 TO 140 70.0	32 TO 140 70.2		5 TO 95% 54.7	5 TO 95% 54.9

All instruments used in the performance of the shown calibration have traceability to the National Institute of Standards and Technology (NIST). The uncertainty ratio between the calibration standards (DM.STD.) used and the unit under test (UUT) is a minimum of 4:1, unless otherwise noted. Calibration has been performed per the shown procedure number, in accordance with ISO 10012:2003, ISO 17025:2005, ANSI/NCSL-Z-540.3, and/or MIL-STD-45662A. Test methods: API2530-92 & ASME MFC-3M-1989.

Dick Munns Company • 10572 Calle Lee #138 • Los Alamitos, CA 90720
Phone (714) 827-1215 • Fax (714) 827-0823

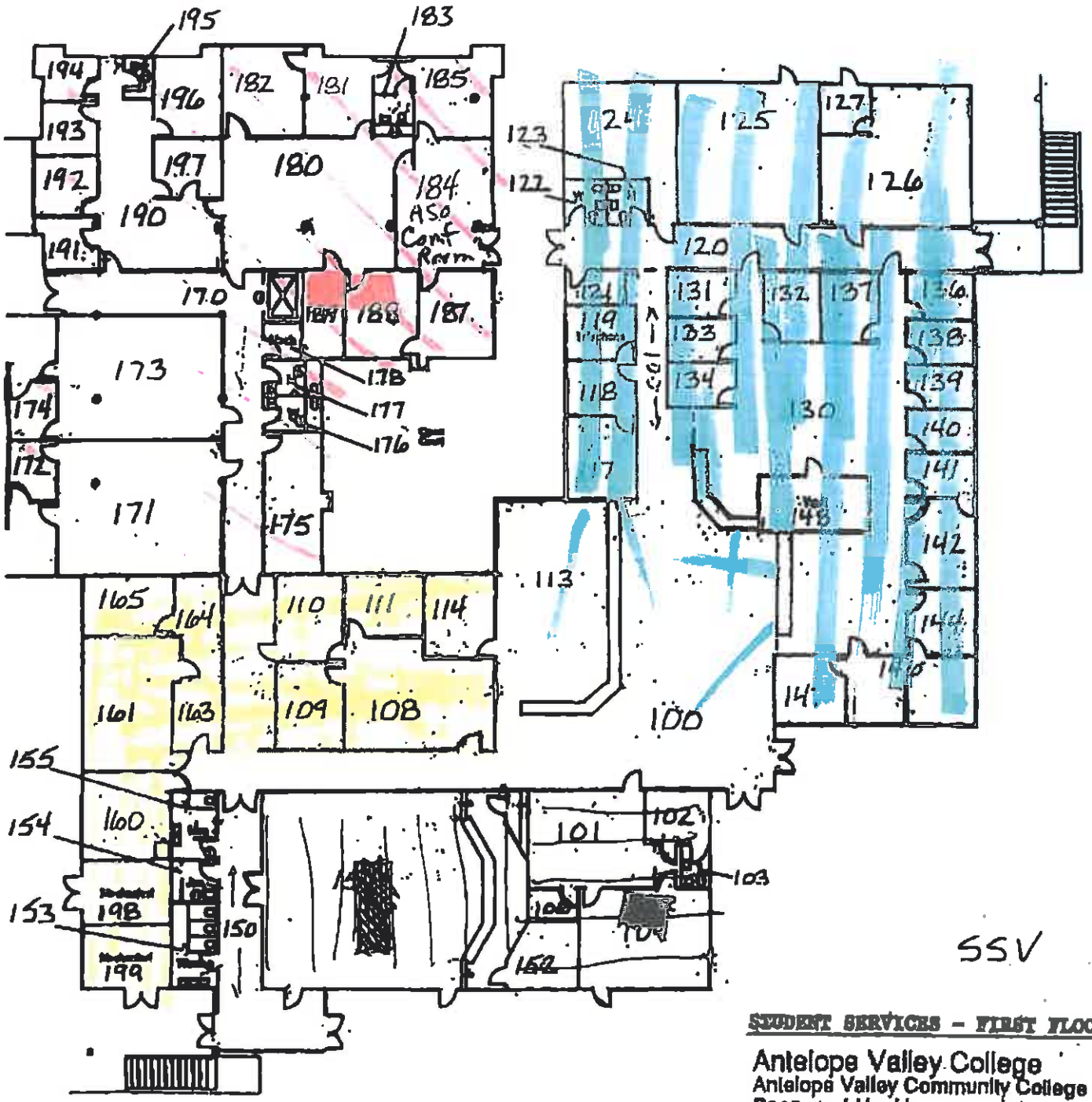
Date: 10-21-2010

Approved By:

Calibration Technician: P. A.

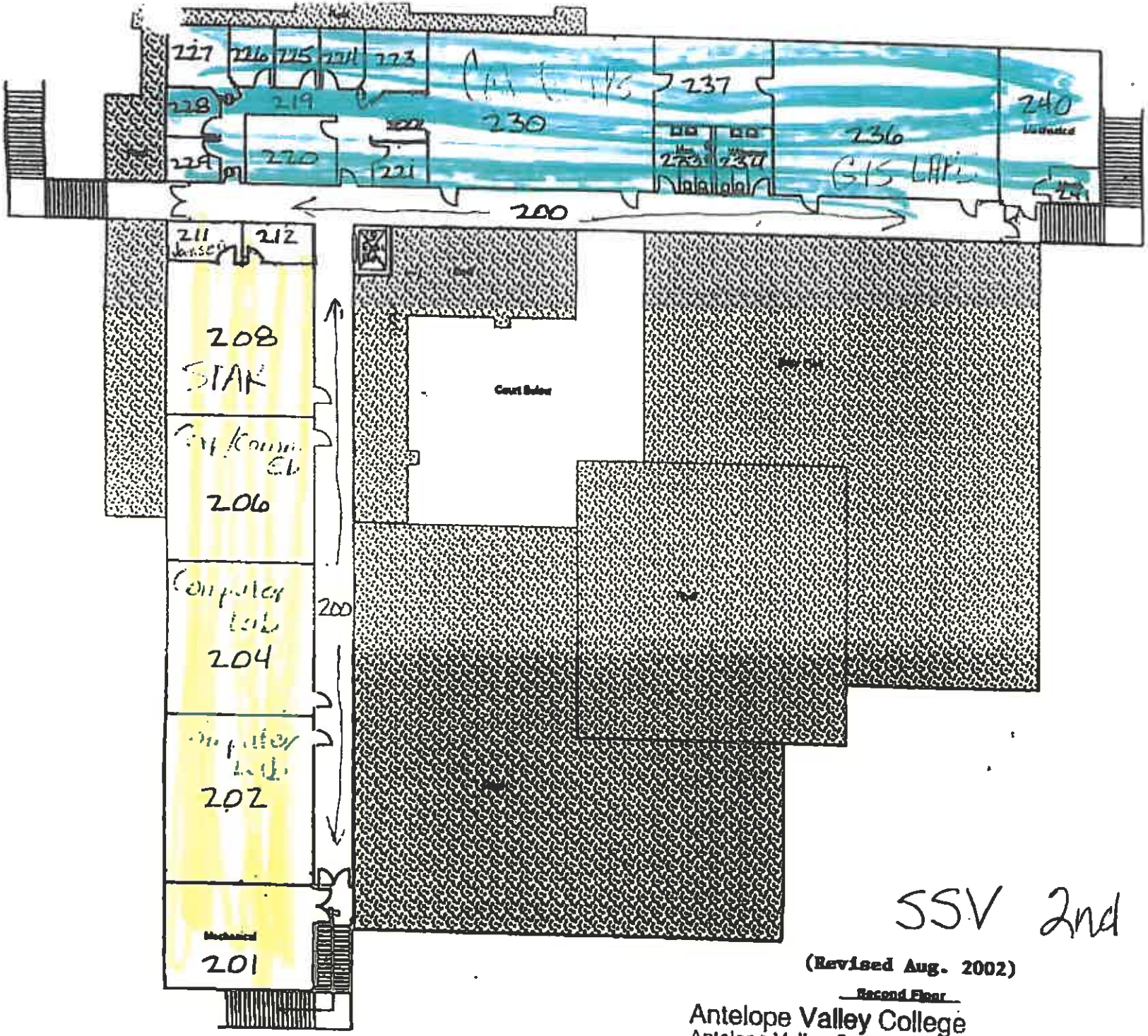
Health Science Associates
TECHNICAL AND ADVISORY SERVICES • ENVIRONMENTAL HEALTH AND SAFETY
10771 Noel St., Los Alamitos, CA 90720 714/220-3922 FAX 714/220-2081

APPENDIX III - Figures



STUDENT SERVICES - FIRST FLOOR

Antelope Valley College
Antelope Valley Community College District
Spencer / Hoskins associates



SSV 2nd Floor

(Revised Aug. 2002)

Second Floor

Antelope Valley College
Antelope Valley Community College District
Spencer / Hoskins associates

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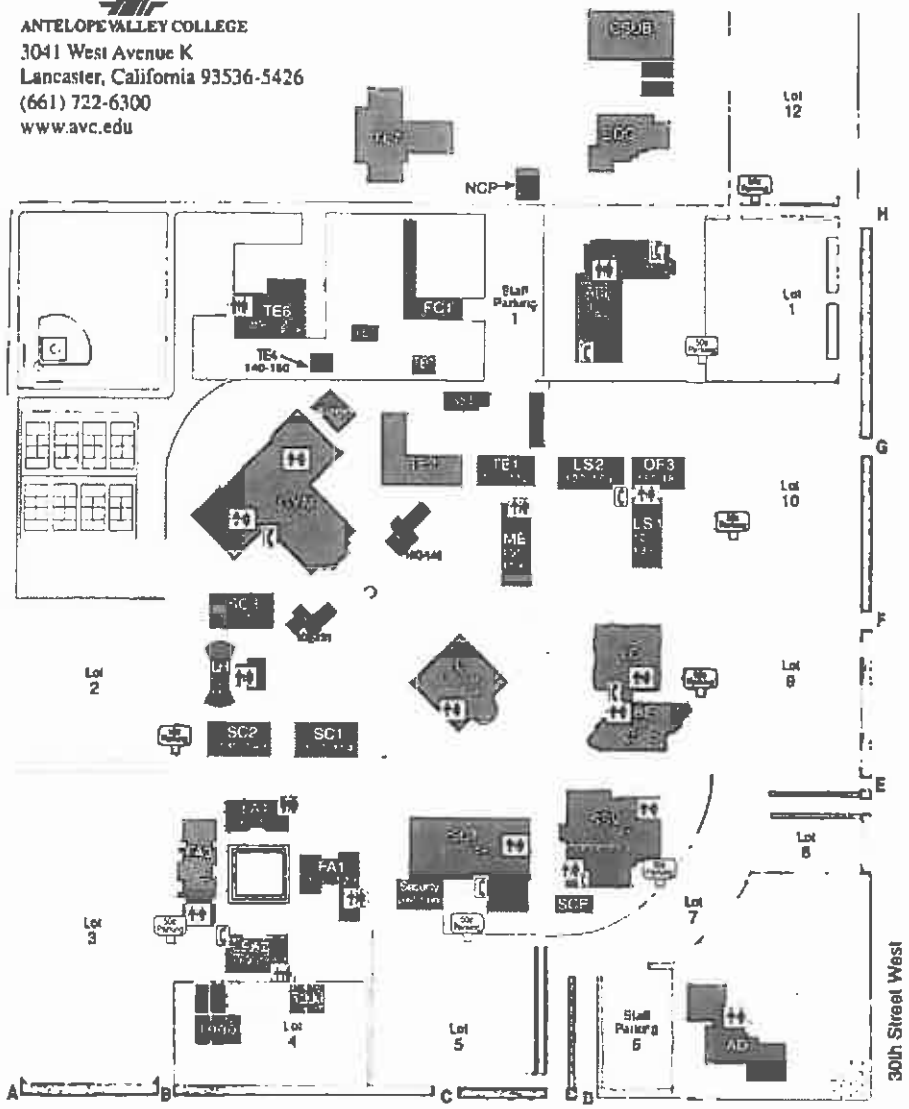

AD	Administration Building
APL	Applied Arts, Allied Health, & Offices
BE	Business Ed., IMC, & Offices
CDC	Child Development Center
CSUB	CSU Bakersfield - Antelope Valley
FA1	Fine Arts [Art & Gallery]
FA2	Fine Arts [Theatre]
FA3	Fine Arts [Music & Offices]
FA 4	Fine Arts
FC1	Facilities
GYM	Gymnasium [PE & Offices]
L	Library
LC	Learning Center
LS1	Liberal Studies & Offices
LS2	Liberal Studies
LH	Lecture Halls
ME	Math /Engineering
OF1	Offices - Math/Science
OF2	Offices - Technical Ed.
OF3	Offices - Language Arts & Social Science
SC1	Science
SC2	Science
SC3	Science
SCT	Student Center [Bookstore, Cafeteria, Security & Lost & Found]
SD1	Marauder Stadium
SSV	Student Services & Information
T 300	Temporary 301
T 700	PE Offices
T 900	Temporary 901-910
TE1	Technical Ed.
TE2	Technical Ed.
TE3	Technical Ed. 138
TE4	Technical Ed.
TE5	Technical Ed. 155
TE6	Technical Ed.
TE7	Technical Ed.

Health Science Associates
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APPENDIX IV - Photographs

SSV-187

SSV-187 Sample Location for Sample 11061621

SSV-187 Sample Location for Samples 11061622

SSV-Office 1 Lobby for Sample 11061619

SSV-Office 1 Lobby for Sample 11061620

SSV-191

SSV-191 for Sample 11062946 and 11062947

SSV-113 Outdoors Front for Sample 11062948 and 11062949

HSs (SH's) Desk Surface for Samples 11062953

MS's Desk Surface Sample 11062952

SSV Leading to Court Yard

SSV Court Yard Water Damage to Exterior Window

SSV Court Yard Exterior Window Rusted from Water

SSV Court Yard Exterior Window Rusted from Water

SSV Court Yard Same

SSV Court Yard Some Excavation Done to Lower Grade so Water does not Enter the Building

HVAC Unit NE Side Debris Inside

HVAC Unit NE Side, Debris Inside, Open Gap between Filter and Side of Unit, Filters Left Inside

HVAC Unit NE Side, Build-up of Dust on Filters

HVAC Unit NE Side

HVAC Unit NE Side

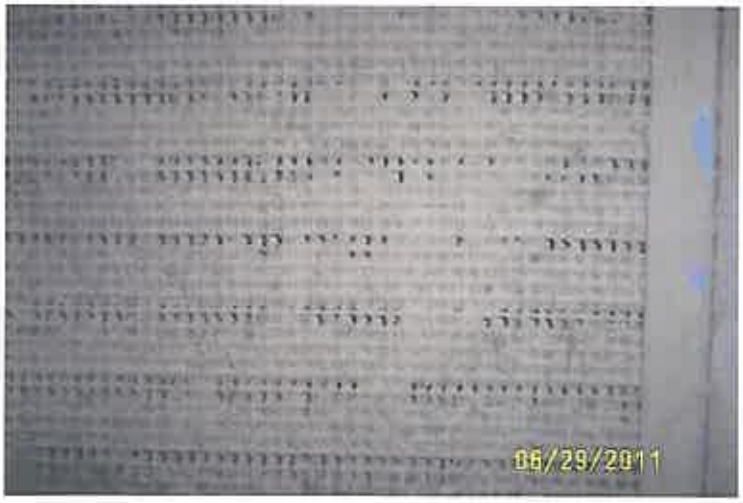
HVAC Unit NE Side, Fibrous Insulation in Side, Potential Source of Fibrous Material if more Duct is Lined with the Material

HVAC Unit NE Side, Debris on Floor

HVAC Unit NE Side, Shows how dust Accumulates on Duct from Air

HVAC Unit NE Side, Fresh air Grills Coated with Dust

HVAC Unit NE Side, Same



HVAC Unit NE Side, Same

HVAC Unit NE Side, Same

HVAC Unit NE Side, Outside air Intakes

HVAC Unit NE Side, Same

SSV Roof

SSV Roof , Shows Accumulation of Desert Dust

SSV Roof , Shows Accumulation of Desert Dust

SSV Roof , Shows Accumulation of Desert Dust

SSV Roof , HVAC unit Coverted with Tarp to Prevent Rain from Leaking into Building, Motor Laying on Top

SSV Roof , HVAC unit Coverted with Tarp to Prevent Rain from Leaking into Building

SSV Roof , HVAC unit Coverted with Tarp to Prevent Rain from Leaking into Building

SSV Roof , HVAC unit Coverted with Tarp to Prevent Rain from Leaking into Building

SSV Roof , Debris on Roof

SSV Roof , HVAC unit Coverted with Tarp to Prevent Rain from Leaking into Building

HVAC unit SW Side, Dust and Foot Prints

HVAC unit SW Side, Dust and Foot Prints

HVAC unit SW Side, Dust on Fan Housing

HVAC unit SW Side, Dust on top of Air Handler

HVAC unit SW Side, Dust on Fresh Air Intake

HVAC unit SW Side, Dust and Filters on Ground

HVAC unit SW Side, Dust on Side of Air Intake