TECH CONSULTING

Fungal Assessment Report

County Facility

1441 Schilling Place Salinas, California

Prepared For: County of Monterey Department of Public Works 168 W. Alisal Street, 2nd Floor Salinas, California 93901

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Executive Summary

S Tech Consulting was retained by the County of Monterey Department of Public Works to conduct an investigation into the presence of moisture intrusion and fungal contamination at 1441 Schilling Place in Salinas, California. The sprawling 200,000 square foot, multi-level building has been vacant for an extended period and is in the process of being prepared for County occupancy.

This assessment was conducted to identify evidence of moisture intrusion which may be contributing to interior mold spore amplification, accumulation of in-active spores, or elevated interior airborne mold spore counts. The assessment was conducted in April and May, 2015 by Sean Tillema. Laboratory analysis was provided by Ameri-Sci Los-angeles, an accredited laboratory with the American Industrial Hygiene Association (AIHA).

This executive summary is not to be utilized as a stand-alone document. The report shall be read in its entirety. Any interpretation, use, or conclusions resulting from the data contained in this report is the responsibility of the reader.

The following conclusions were arrived at from the field investigation and laboratory analysis. See the report body and recommendations for detailed information on the items listed below. Site plans in Appendix 'A' indicate sample locations and areas of concern. Laboratory reports are provided in Appendix 'B'.

Overview

Overall, conditions in the building are hygienic with relatively minor, localized areas of interior mold amplification occurring, which will require corrective action prior to general occupancy. There is a combination of ongoing systemic, though periodic, moisture intrusion occurring as well as past localized intrusion from water leaks. Controlling future moisture intrusion, from both direct point sources and elevated humidity, is critical in preventing interior mold amplification from occurring.

At the time of the assessment, the interior of the building appeared relatively well maintained, though we would assume janitorial service would expand once general occupancy occurs. Humidity readings collected throughout the building indicate correct humidity is maintained in the 30%-50% range, as recommended by the United States Centers For Disease Prevention and Control (CDC) for the prevention of interior mold growth.

The moisture intrusion and microbial issues for 1441 Schilling Place are divided between systemic and localized.

Systemic - Roof Leaks

* The deteriorated roofing systems are contributing to systemic, minor to moderate roof leaks throughout the building. This is most notable on the second floor of the South Building. Staff indicate this is an ongoing maintenance issue after nearly every precipitation event. These leaks contribute to ceiling tile staining observed to varying severity throughout the facility.

At the time of the assessment, the collection of digital moisture content data did not indicate remaining moisture content in the stained suspended ceiling tiles. Laboratory analysis of bulk and surface samples from the tiles found no active fungal growth. However, based on the identification of low concentrations of non-active mold spores, there is evidence of past minor mold growth. This will be an ongoing maintenance issue until the roof is replaced. Until the roof can be replaced, ceiling tiles should be removed and replaced as soon as staining is observed.

Systemic - VAV Box Condensation

* A second contributing systemic moisture intrusion issue is related to condensation originating from the VAV chiller boxes above the suspended ceiling. The condensation from the boxes appear to be slowly dripping onto the ceiling tiles during various periods. At the time of the assessment, residual moisture is not present in the tiles and active mold growth is not occurring. However, based on the identification of low concentrations of non-active mold spores, there is evidence of past minor mold growth. This will be an ongoing maintenance issue until the issue can be corrected. Ceiling tiles should be removed and replaced as soon as staining is observed.

The recommendation is to consult with a licensed mechanical engineer to determine the root cause of the condensation issues and appropriate corrective measures.

Executive Summary - continued

Localized - Moisture Intrusion and/or Fungal Contamination

- * North Building, First Floor (NB1) A fairly recent moisture intrusion episode occurred in boiler room 101 in the mechanical loft. A relief valve malfunctioned, resulting in the release of water for an unknown period of time. This flooding impacted the walls of boiler 101 and the offices/rooms directly below, including the mechanical loft access room and offices/storage rooms 1622-1625. Moisture remains detectable at the base of the mechanical loft access room. The only elevated airborne spore counts identified in the entire facility were from this area. Bulk microbiological analysis of the damaged drywall determined amplification of Stachybotrys spores in both the lower level and boiler room 101. Remediation should occur prior to general occupancy.
- * North Building, First Floor (NB1) Along the open cubicle area side of the NW stairwell, circular staining is visible along the lower drywall. Microbiological examination determined the presence of heavy active fertile colonies of Penicillium sp.. There are no obvious signs of moisture intrusion or drywall damage. Digital moisture metering indicates dry conditions. The fungal growth may have been a result of hygiene and janitorial deficiencies in this area. Remediation should occur prior to general occupancy.
- * North Building, First Floor (NB1) In the patio/courtyard area, moisture intrusion is actively migrating from the stucco siding into the small storage closet, along the breezeway to the east patio. The moisture is damaging the wallboard, behind the stucco, and resulting in heavy amplification of Claudosporium spores. A waterproofing consultant or licensed contractor should be consulted to determine the corrective measures necessary to stop the moisture intrusion. While this is not an occupied area, remediation should occur prior to storing items in this room.
- * North Building, First Floor (NB1) The NW stairwell door to the exterior has water damage along both sides of the door. Fungal growth was not detected. The door should be inspected by a qualified waterproofing consultant or licensed contractor determine the root cause and corrective measures necessary.
- * North Building, Second Floor (NB2) In boiler room 102, a past moisture intrusion event occurred near a plumbing connection, damaging the drywall and resulting in the heavy accumulation of Stachybotrys spores. While the area impacted is minor, remediation should occur due to the type of mold spores identified.
- * South Building, First Floor (SB1) In a kitchen storage closet, a combination of repeated moisture intrusion from a faucet connection and lack of maintenance has damaged the drywall and resulted in heavy amplification of Chaetomium mold spores. The drywall no longer has elevated moisture content but is susceptible to future moisture intrusion based on the room's usage. Remediation should occur prior to general occupancy. Additionally, waterproofing material is recommended for the walls and floors.

Other minor areas of moisture intrusion, where no fungal contamination is present are listed in the report summary tables. See the summary and recommendations sections of this report for comprehensive recommendations.

Note, fungal growth can occur at anytime when moisture is present from a direct source, such as a roof leak or pipe break, or when sustained periods of elevated humidity occur. This assessment is based on current building conditions, which may change should new sources of moisture be introduced or should existing sources not be promptly corrected.

Introduction

S Tech Consulting was retained by the County of Monterey Department of Public Works to conduct an assessment for past and present visible moisture intrusion and resulting fungal contamination at 1441 Schilling Place in the City of Salinas, California. The assessment was conducted as a component of preparations for County occupancy of the facility.

The purpose of the assessment was to determine the locations of past and present moisture intrusion be it from interior or exterior sources. Where moisture intrusion was identified, representative sampling was conducted to determine whether the moisture intrusion resulted in fungal amplification. Elevated mold spore levels can contribute to a deterioration of indoor air quality and cause irritations to allergies in sensitive individuals. Additionally, mold growth can result in the decay of building materials, increasing long term building maintenance costs.

The scope of work for this project included an assessment for the following:

- o A detailed room by room, surface by surface inspection for areas of past or present moisture intrusion.
- The collection of environmental data, including temperature and humidity to determine whether interior ambient conditions were appropriate to prevent mold growth.
- To determine whether visible moisture intrusion was from an active or past moisture source. Building materials
 were tested for moisture content and compared against a known 'dry' samples.
- Where present or past moisture intrusion was identified, additional inspection and representative sampling by bulk collection or bio-surface sampling methods occurred to determine the presence of fertile or in-active mold spore presence.
- Representative collection of spore trap air samples throughout the building to determine whether moisture intrusion or other sources were contributing to elevated airborne mold spore levels, which may be an indication of a spore amplification or the presence of hidden sources of mold growth.
- Laboratory analysis of collected samples by an American Industrial Hygiene Association (AIHA) accredited laboratory.
- Documentation of findings and recommendations for proceeding.

Laboratory analysis was performed by AmeriSci Los Angeles, an independent and AIHA accredited laboratory. All field inspection activities were conducted by Sean Tillema during April-May, 2015.

Property Description

1441 Schilling Place was originally constructed as a commercial/industrial facility providing office, manufacturing, and warehouse space for the prior owner, Capital One.

The property was vacated by Capital One in 2013. It has been maintained and climate controlled since being vacated.

The building is approximately 200,000 square feet in area and comprised of two independently constructed buildings joined by a common lobby. The North Building is a mostly single story structure, constructed in 1985. In 1988, the facility was expanded by the addition of the two story, South Building. The buildings share a common architectural style.



Property Description - continued

North Building

The north building is a concrete tilt-up structure with a textured exterior finish and aluminum framed windows. The building is constructed slab on grade. The building is a mostly single story structure, with a small second level used for building engineering offices and mechanical rooms. Unique to the North Building are a large warehouse, docks, and a server room.

The roof is a flat built-up bituminous system.

Interior finishes include textured or skim coated drywall walls, carpeting, vinyl floor tile, linoleum, and ceramic tile. Suspended ceiling cover the majority of the interior space. Above the ceilings are the mechanical systems, including HVAC metal and flex duct, fiberglass insulation, chiller lines, electrical conduit, and data lines.

South Building

The South Building is a two story steel framed structure with exterior stucco siding and curtain wall glass. The primary usage of the South Building is for office space. Unique to the South Building is a large cafeteria and gymnasium.



The roof is a flat built-up bituminous system.

Interior finishes include textured or skim coated drywall walls. Flooring includes ceramic tile, carpeting, vinyl floor tile, linoleum, and thick sheet flooring. Suspended ceiling cover the majority of the interior space. Above the ceilings are the mechanical systems, including HVAC metal and flex duct, fiberglass insulation, chiller lines, electrical conduit, and data lines.

Mold Background Information

Molds are fungi that are ubiquitous in the environment. Molds are responsible for biodegradation of other materials and are essential to the natural environment. There are thousands of mold species and, in addition to their properties of biodegradation, are also invaluable in pharmaceuticals and the food and beverage industries. Aside from their beneficial properties, molds are also responsible for many allergies experienced by humans and can cause damage to organic materials due to their natural purpose of being an active agent of decay and biodegradation. Spores can readily float on the air and enter interior spaces by open windows and doors and HVAC systems.

The presence of mold spores in the indoor environment is not in itself a problem when the source is the normal interchange of outside air. However, when conditions allow for mold spore amplification, which is the reproduction of settled mold spores, within the indoor environment, a deterioration in indoor air quality can result and damage to building materials and contents can occur. For mold amplification to occur, four conditions must be met; a mold spore reservoir, the presence of a nutrient source and a moisture source (direct or elevated humidity), and the appropriate temperatures maintained. If any of the fours conditions are controlled, mold will not grow. Of the four conditions, moisture control is the simplest means of preventing interior amplification of mold from occurring. Additionally, proper maintenance and janitorial services prevent mold spores brought in from the exterior from accumulating inside the building, which can create unsanitary conditions and aggravate allergies.

When discussing issues related to interior fungal growth and exposure, it is important to be aware that neither the State of California nor the federal government have instituted any regulatory measures or exposure limits for interior mold hazards. However, it is generally accepted in the medical and building trades communities that accumulation of mold spores within buildings should be limited, which routine maintenance and properly functioning HVAC systems should ensure. Interior mold spore amplification should never occur within a properly functioning building. When it is detected, moisture intrusion sources must be corrected as soon as possible and remediation of damaged building materials must rapidly follow.

Facilities Manager Interview

Prior to conducting the physical assessment of the property, an interview was conducted with Jose Gonzales, facilities manager for the building. Mr. Gonzales was also employed by the prior owner of the building and has extensive knowledge of the maintenance history of the building. Mr. Gonzales was consulted a number of times during this assessment.

In out initial meeting with Mr. Gonzales, he provided the following information on the facility:

- 1. Climate control has been maintained in the period since Capital One vacated the premises. This includes running the HVAC systems to maintain temperature and humidity levels.
- 2. There is regular janitorial service for many areas of the building, but not all areas. Routine maintenance occurs in the kitchen and restrooms and much of the office space.
- 3. All building systems are maintained by regular maintenance. When necessary, repairs are made as soon as feasible.

According to Mr. Gonzales, he is aware of the following conditions or events that may have resulted in moisture intrusion to the interior spaces.

- 1. Minor to Moderate Moisture Intrusion: Roof Leaks. Following past precipitation, a number of minor to moderate roof leaks have developed which have resulted in visible moisture intrusion. This majority of the moderate episodes have occurred on the second level of the South Building. Extensive patching and roof mastic usage have been used on the roof to manage the waterproofing failures. Severe damage to ceiling tiles have been addressed, though minor staining has not currently been addressed.
- 2. Minor Moisture Intrusion: Condensation drips from chiller coils in VAV boxes above suspended ceilings. Stained ceiling tiles throughout the North and South Building are visible and Mr. Gonzales attributes the majority of the smaller stains to condensation issues with the mechanical system above the suspended ceilings. There is no clear understanding of why this is occurring.
- 3. Major Moisture Intrusion: Catastrophic System Failures.
 - Mr. Gonzales is aware of two system failures which resulted in major moisture intrusion.
 - a. The main water supply line burst unexpectedly on the exterior of the South Building's east perimeter. This resulted in a massive release of water, thought the direction of the flow was away from the building's interior. The County's response was quick and prevented any major interior flooding.
 - b. In the North Building, a relief valve unexpectedly opened in Boiler Room 101. This boiler room is located in a mechanical loft above the finished office space. Water drained down, impacting the stairwell to the mechanical loft and offices 1622A, 1622B, and 1625A. Security officers were the first to discover the relief valve failure and promptly contacted County staff. However, neither County staff nor security personnel are certain how long water was released for.

Fungal Assessment / Moisture Intrusion Inspection Protocol

For purposes of the assessment, S Tech partitioned the building into the following manageable areas:

SB1 - South Building, Floor 1
SB2 - South Building, Floor 2
NB1 - North Building, Floor 1
NB2 - North Building, Floor 2 (Facilities & Mechanical Level)
Exterior / Roof

In each area of the building, the following methodology was used to conduct the assessment:

- 1. Visual inspection for signs of moisture intrusion, including staining and deteriorated building materials. Where suspect moisture intrusion was observed, a Delmhosrst BD-2100 moisture meter was utilized to determine whether elevated moisture content remained in the building material or had since dried out.
- Olfactory observations for odors typically associated with fungal growth or elevated moisture content in building materials.
- 3. Representative humidity monitoring using a Kestrel 4200 Air Flow Tracker to determine whether proper climate control was maintained to ensure humidity levels of 30%-50%, as recommended by the United States Centers for Disease Control and Prevention (CDC).
- 4. Where suspect staining was observed, representative sample collection by bulk or tape-lift sampling methods to determine the presence of inactive or active fungal growth. Samples analyzed at Ameri-Sci Los Angeles, using Method SOP# 4016 Direct Fungal Identification. The laboratory reports the presence of spores ranging from rare (1-10 spores), light (11-100 spores), moderate (101-200 spores), and heavy (200+ spores). The mere presence of mold spores is not necessarily an indication of an interior fungal contamination problem. As previously noted, spores enter the building via a variety of pathways including normal air exchange and on materials or persons entering and exiting the building. However, where the analyst identifies accumulation of spores, this could be an indication of either poor housekeeping or past fungal propagation. Where the analyst indicates 'Active Fertile Colonies', the determination is that interior amplification is occurring due to interior conditions conducive to mold growth.
- 5. Representative air sample collection by spore trap, using a Zefon Bio-Pump Plus, throughout the interior of the facility to determine typical ambient mold spore counts. Exterior sampling was conducted to allow for comparison between interior and exterior spore loading. Under normal, or '<u>Typical</u>' conditions, the interior mold spore counts are lower than the exterior and the spore types are similar to one another, indicating spores entering the building by normal air exchange from the exterior. When spore counts are higher on the interior of the building, when compared to exterior counts, or when there is a variation in spore types, the conditions are described as '<u>Atypical</u>'. While there are no standards for 'safe' of 'unsafe' spore counts, an atypical interior count may be evidence of interior amplification. Spore traps samples were analyzed at Ameri-Sci Los Angeles, using Method SOP# 4001 Air Cassette Analysis.

The following pages detail the finding of each individual area of the building as outlined above. See Appendix 'A' for site plans and sample locations. Laboratory analytical reports are provided in Appendix 'B'.

Fungal Assessment Results

South Building, Floor 1

The first floor of the South Building had only minor areas of visible moisture intrusion, most of which are localized. Humidity ranged from 42.5% to 47.8% throughout the floor, considered acceptable. Olfactory observations did not indicate noticeable odors associated with moisture intrusion or mold presence.

Visual Inspection								
		South Building, Floo	or 1 (SB1)					
Area	Location Identified Moisture Intrusion Moisture Intrusion Condition Pho							
SB1	Lobby, Cubicle & Office Area	Minor areas of ceiling tile staining, all were within acceptable 'dry' ranges as measure on the BD-2100. Leaks appear to originate from chiller line condensation above suspended ceiling, though past roof leaks may have contributed						
SB1	Kitchen Restroom	Signs of past moisture intrusion on water line pipes and ceiling tiles. No indication of current moisture intrusion. Building materials in the area of the staining were within acceptable 'dry' ranges as measure on the BD-2100						
SB1	Kitchen Storage Closet	Black staining at base of wall in closet, deteriorated drywall surfaces. Room has water spigot and appears to have been used for storage and not well maintained. The suspect mold growth likely occured when the building was still in-use. Building materials within acceptable 'dry' ranges as measure on the BD-2100						

South Building, Floor 1 - continued

Sou	th Buildi	ing - Floor	1 (SB1)	Таре	Tape-Lift / Bulk Sample Analysis (Method SOP #4016)			
Sample #	Sample Type	Material Sampled	Locations	Mold Spores Identified	Fertile Colonies (Interior Amplification)	Analyst Comment		
001B	Bulk	Stained Ceiling Tile	SB1 - Office/ Cubicle Area	None	None	No spores/growth		
002B	Bulk	Stained Ceiling Tile	SB1 - Office/ Cubicle Area	Yes	None	Light to rare - spores only		
003T	Bio-Tape	Caferteria Drywall - Misc. Staining	SB1-Cafeteria Tray Counter	None	None	No spores/growth		
004B	Bulk	Damaged/Stained Drywall	SB1-Kitchen Storage Closet	Yes	Yes - Chaetomium sp.	Light to heavy - Active		
005B	Bio-Tape	Stained Ceiling Tile	SB1 - Kitchen Restroom	Yes	None	Light to rare - spores only		

So	uth Bui	lding - Floor 1	<u>-</u>	ap Sample Analysis Method SOP #4001)	
Sample #	Sample Type	Location	Interior Spore Count (c/m³)	Mean Exterior Count (c/m³)	S Tech Comments
001A	Air	SB1 - Center South Offices/Cubicles	246		Typical
002A	Air	SB1 - East Stairwell	691		Typical - Note Built Up Dust, No Janitorial In This Area
003A	Air	SB1 - N/W Offices 1150 HR Wing	246		Typical
004A	Air	SB1 - Women's Restroom	790	1,530	Typical
005A	Air	SB1 - Cafeteria	691		Typical
006A	Air	SB1 - Kitchen (near closet/office)	247		Typical
007A	Air	SB1 - Main Entry Lobby	445		Typical

South Building, Floor 2

The second floor of the South Building is where the most significant ceiling tile staining was observed. Our understanding is the roofing system has had a number of failures in this area and the cooling tower also had leakage issues. Facilities staff were in the process of removing and replacing a large grouping of stained ceiling tiles in the cubicle area east-center of the executive offices. Humidity ranged from 41.6% to 45.0% throughout the floor, considered acceptable. Olfactory observations did not indicate noticeable odors associated with moisture intrusion or mold presence.

	Visual Inspection								
	South Building, Floor 2								
Area	Location	Identified Moisture Intrusion	Moisture Intrusion Condition Photo						
SB2	Offices 2048D/ 2048C All cubicle areas 'Fuji' Offices Breakroom SE Offices	Minor to significant ceiling tile staining mainly concentrated in the cubicle areas to the east and south of the former excecutive offices. All tiles were within acceptable 'dry' ranges as measured on the BD-2100. Leaks appear to be related to roof system failures, which facilities currently patches as soon as observed.							

South Building, Floor 2 - continued

Sou	th Buildi	ing - Floor	2 (SB2)	Таре	Tape-Lift / Bulk Sample Analysis (Method SOP #4016)			
Sample #	Sample Type	Material Sampled	Locations	Mold Spores Identified	Fertile Colonies (Interior Amplification)	Analyst Comment		
020T	Bio-Tape	Stained Ceiling Tile	SB2 - Office 2048D	No	None	No spores/growth		
021B	Bulk	Stained Ceiling Tile	SB2 - North Center Cubicles	Yes	None	Rare - Spores Only		
022T	Bio-Tape	Stained Ceiling Tile	SB2 - SE Cubicle Area	No	None	No spores/growth		
023T	Bio-Tape	Stained Ceiling Tile	SB2 - Office 2041G	No	None	No spores/growth		
024T	Bio-Tape	Stained Ceiling Tile	SB2 - Central Cubicle Area	No	None	No spores/growth		

So	uth Bui	lding - Floor 2	Spore Trap Sample Analysis (Method SOP #4001)		
Sample #	Sample Type	Location	Interior Spore Count (c/m³)	Mean Exterior Count (c/m³)	S Tech Comments
020A	Air	SB2 - Executive Wing	543		Typical
021A	Air	SB2 - Center Cubicle Area, East of Executive Wing	247	1.520	Typical
022A	Air	SB2 - S/W Cubicle Area	493	1,530	Typical
023A	Air	SB2 - S/E Cubicle Area	444		Typical

North Building, Floor 1

The first floor of the north building covers a large area. Ceiling tile staining was observed in a number of locations. Wall staining was observed in two locations. Humidity ranged from 39.8% to 45.9% throughout the floor, considered acceptable. Olfactory observations indicated an odor typically associated with moisture and mold growth in the storage closet of 1625A, which is in the office cluster below the mechanical loft where the relief valve malfunctioned and resulted in flooding.

	Visual Inspection								
		North Building, F	loor 1						
Area	Location	Identified Moisture Intrusion	Moisture Intrusion Condition Photo						
NB1	N/W Cubicle Area. Cubicle side of stairwell wall.	Circular staining typical of mold colony formation. No indication of moisture when measured with the BD-2100 moisture meter.							
NB1	1622-1625 Areas Mechanical Loft Ladder Closet, Boiler Room and Associated Offices	Damage to cove base and floor tiles in mechancical loft access closet Ceiling tile staining to 1622A, 1622B, 1625A							

North Building, Floor 1 - continued

	Visual Inspection									
	North Building, Floor 1									
Area	Location	Identified Moisture Intrusion	Moisture Intrusion Condition Photo							
NB1	N/W Stairwell	Either side of building exit door, moisture is impacting wallboard								
NB1	Various Locations	Ceiling tile staining from possible roof leaks and VAV chiller condensation. No indication of remaining moisture content in ceiling tiles based on individual readings collected on BD-2100. See plan for specific locations but most notable in north east addition, server room alcove, open office area south of vault rooms, and former employee lounge								

North Building, Floor 1 - continued

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	North Building, Floor 1									
Area	Location	Identified Moisture Intrusion	Moisture Intrusion Condition Photo							
NB1	Patio Storage Room	Major staining along interior wallboard. Appears that moisture impacting the stucco is saturating through to interior wall. Moisture content of wallboard is saturated at the wall base, as measured by the BD-2100								

North Building, Floor 1 - continued

Nor	th Buildi	ng - Floor	1 (NB1)	Tape-Lift / Bulk Sample Analysis (Method SOP #4016)			
Sample #	Sample Type	Material Sampled	Locations	Mold Spores Identified	Fertile Colonies (Interior Amplification)	Analyst Comment	
006B	Bulk	Stained Ceiling Tile	NB1 - Server Room Alcove	Yes	None	Light - spores only	
007T	Bio-Tape	Stained Drywall	NB1 - N1 Telecom Room	None	None	No spores/growth	
008T	Bio-Tape	Stained Ceiling Tile	NB1 - Far West Cubicles	None	None	No spores/growth	
009T	Bio-Tape	Circular staining on drywall	NB1 - NW Cubicle Area	Yes	Yes - Penncillium Sp.	Heavy - Active	
010T	Bio-Tape	Stained Drywall	NB1 - 1621A Above Ceiling Tiles	None	None	No spores/growth	
011B	Bulk	Stained/Damaged Drywall	NB1 - 1622A Mech. Loft Access Rm.	Yes	Yes - Stachybotrys sp.	Heavy - Active	
012B	Bulk	Stained/Damaged Drywall	NB1 - Loft Boiler Room 101	Yes	No, though Stachybotrys spores present, related to 011B	Rare - spores only - related to 011B	
013T	Bio-Tape	Stained Ceiling Tile	NB1 - NE Cubicle Area	Yes	None	Rare - spores only, Stachybotrys present	
014B	Bulk	Stained Ceiling Tile	NB1 - NE Cubicle Area	Yes	None	Rare - spores only, Stachybotrys present	
015T	Bio-Tape	Stained Ceiling Tile	NB1 - NE Addition	None	None	No spores/growth	
016T	Bio-Tape	Stained Ceiling Tile	NB1 - Office to Warehouse	None	None	No spores/growth	
017T	Bio-Tape	Stained/Damaged Drywall	NB1 - NW Stairwell	None	None	No spores/growth, though visible water damage	
019T	Bio-Tape	Stained Drywall	NB1 - Passage Water Heater Closet	Yes	None	Rare - spores only	
025B	Bulk	Stained/Damaged Drywall	NB1 - Patio Storage Rm.	Yes	Yes - Claudosporium sp.	Heavy - Active	

North Building, Floor 1 - continued

No	rth Bui	lding - Floor 1	(NB1)		ap Sample Analysis Method SOP #4001)
Sample #	Sample Type	Location	Interior Spore Count (c/m³)	Mean Exterior Count (c/m³)	S Tech Comments
008A	Air	NB1 - Lounge	641		Typical
009A	Air	NB1 - Server Room	197		Typical
010A	Air	NB1 - Main Corridor	247		Typical
011A	Air	NB1 - Center West Cubicle Area	296		Typical
012A	Air	NB1 - Far West Cubicle Area	345		Typical
013A	Air	NB1 - NW Cubicle Area	493	1,530	Typical
014A	Air	NB1 - Storage Closet 1625A - Odor Noted	2,173		Atypical - Odor observed, room in general area of relief valve leak from boiler 101 in mechanical loft.
015A	Air	NB1 - Mechanical Loft Above 1625A/1622A	740		Typical
016A	Air	NB1 - Men's Restroom	988		Typical
017A	Air	NB1 - NE Cubicle Area	395		Typical
018A	Air	NB1 - NE Newer Addition	494		Typical

North Building, Floor 2

The partial second floor of the north building houses facilities staff offices and mechanical rooms. Humidity ranged from 46% to 48.5%, considered acceptable. No odor issues were observed. The following table summarizes the visual inspection in this area of the building:

		Visual Inspect	tion
	_	North Building, F	loor 2
Area	Location	Identified Moisture Intrusion	Photo of Typical Moisture Intrusion Condition
NB2	Facilities Floor, Boiler Room 102	Evidence of past moisture intrusion around plumbing valve. Stained/damaged drywall. Materia measure 'dry' on BD-2100	
NB2	Facilities Office 'Jose's Office'	Evidence of moisture intrusion around skylight, which is now covered by cardboard. Wood measured 'dry' based on BD-2100 moisture content reading.	

North Building, Floor 2 - continued

Nor	th Buildi	ing - Floor 2	2 (NB2)	Таре	Tape-Lift / Bulk Sample Analysis (Method SOP #4016)					
Sample #	Sample Type	Material Sampled	Locations	Mold Spores Identified	Fertile Colonies (Interior Amplification)	Analyst Comment				
018B	Bulk	Stained/Damaged Drywall	NB2 - Boiler Room 102, Base of wall	Yes	None	Heavy - Stachybotrys sp.				

No	rth Bui	lding - Floor 2	! (NB2)	Spore Trap Sample Analysis (Method SOP #4001)					
Sample #	Sample Type	Location	Interior Spore Count (c/m³)	Mean Exterior Count (c/m³)	S Tech Comments				
019A	Air	NB2 - Facilities Floor, Main Corridor	740	1,530	Typical				

Exterior Control and Quality Control Samples

	Exteri	or & QC Samp	les		ap Sample Analysis Method SOP #4001)
Sample #	Sample Type	Location	Spore Count (c/m³)	Mean Exterior Count (c/m³)	S Tech Comments
024A	Air	Exterior - Entry, West Facing Side of Building	1,382		
025A	Air	Exterior - Courtyard/ Patio			Exterior control samples for comparison w/ interior results
026A	Air	Exterior - East Facing Side of Building	1,431		
027A	Air	Blank QC	None Detected	Not Assissable	Quality Control Seventes
028A	Air	Blank QC	None Detected	Not Applicable	Quality Control Samples

Conclusions & Recommendations for Proceeding

The conclusions from this assessment are based upon the comprehensive visual inspection, the collection of climate control data, and the collection and analysis of fungal surface, bulk, and air samples.

As noted in the report, the mere presence of mold spores within a building are not cause for concern and are typically the result of normal air exchange from the exterior. When mechanical systems are working properly and routine maintenance and janitorial service is performed, the accumulation of fungal spores in a building will be limited. When the results of fungal sampling indicates non-active mold spore accumulation, it <u>may</u> be an indication of past interior mold amplification due to a condition within the building. When active fertile colonies are identified, it is proof of interior amplification.

Based on S Tech Consulting's assessment of 1441 Schilling Place, there is no indication of a systemic fungal contamination problem in the building. There is localized fungal contamination, including four locations where active growth is occurring, which will require further investigation and remediation. Additionally, there is systemic moisture intrusion associated with the deteriorating roofing materials and VAV boxes, which, if not corrected, will continue to damage interior surfaces and may result in mold growth following precipitation.

Conclusions

- * Interior humidity levels throughout the building are within the 30% to 50% range as recommended by the United States CDC for the prevention of interior mold growth.
- * Interior airborne spore counts remained within acceptable ranges, when compared to outdoor ambient levels. The lone exception, is the spore count in the office area below the location of the leak in boiler room 101. In these offices, spores counts exceed outdoor levels, indicating likely interior amplification. Further supporting evidence of fungal amplification in this area are the elevated moisture content reading of the drywall and the presence of active fungal colonies of Stachybotrys, which is an indicator species of moisture intrusion.
- * Widespread ceiling tile staining is occurring due to roof leaks and condensation from the VAV chiller line boxes. The staining is observed sporadically throughout all areas of the buildings. At the time of the assessment, moisture content analysis did not indicate elevated moisture present in the tiles. Microbiological analysis of bulk and surface samples indicate the presence of accumulated spores, evidence that minor mold growth may be occurring when the tiles are actively wet. The mold growth likely rapidly ceases as the tiles dry out. This has the potential to impact airborne spore counts, though, at the time of the assessment, there is no indication of that currently occurring.
- * A number of moisture intrusion events or maintenance deficiencies have resulted in minor interior mold spore amplification on drywall surfaces. Of the areas detailed in the tables, boiler room 101 and the offices below have the most significant building material damage and mold growth. However, when compared to the overall area of the building, these are relatively minor issues and do not pose a facility-wide environmental hazard.

Recommendations for Proceeding

- * Remove and replace all stained ceiling tiles in the facility. Until corrective measures eliminate overhead moisture intrusion, continue removing and replacing tiles as soon as staining is observed.
- * Consult with a waterproofing consultant and/or licensed contractor to determine whether the roofing can be repaired or must be replaced to eliminate leakage. Refer to the asbestos survey report for the facility prior to disturbing roofing materials during repair or replacement.
- * Consult with a mechanical engineer to determine the root cause of the VAV box condensation and how to eliminate it from occurring. If it cannot be eliminated, conduct regular visual inspections for staining and replace tiles as soon as possible.
- * Retain a qualified environmental remediation firm to safely remove building materials where the report has identified interior amplification is occurring or heavy accumulation of spores remain.
- * Retain a qualified environmental consultant to conduct post remediation clearance inspections, including the collection of air samples inside the the remediation contractor's work area.

Conclusions & Recommendations for Proceeding

Recommendations for Proceeding - continued

- * Retain a qualified environmental consultant to conduct post remediation clearance inspections, including the collection of air samples inside the the contractor's work area.
- * Continue to maintain humidity in the building between 30%-50% and ensure adequate air exchange throughout the facility.
- Continue to follow all applicable preventative and routine maintenance for a facility of this nature. HVAC filters must be routinely replaced as per the manufacturer's recommendations to maintain appropriate indoor air quality.
- * Monitor irrigation and drainage systems to ensure moisture is not contacting the building repetitively.
- * Develop a structured janitorial program which emphasizes correct cleaning methodologies to eliminate over-use of liquids or incorrect storage of liquids. Use only HEPA vacuums when conducting cleaning to ensure settled or accumulated mold spores are thoroughly removed from the building interior. Vacuums without HEPA filters do not have the filtering capacity to prevent spore pass-thru from occurring.
- Develop an Operations & Maintenance Program for controlling mold and moisture in this facility.
- * Respond to moisture intrusion events as soon as possible. Of the four condition necessary for mold growth, moisture control is the simplest to implement. Therefore ensuring immediate response and clean-up of moisture intrusion events is the best deterrent for future mold growth outbreaks in this facility.

If you have any questions please feel free to call us at 831.883.8415.

S Tech Consulting

Sean P. Tillema
Certified Asbestos Consultant (CAC) #07-4257

Limitations

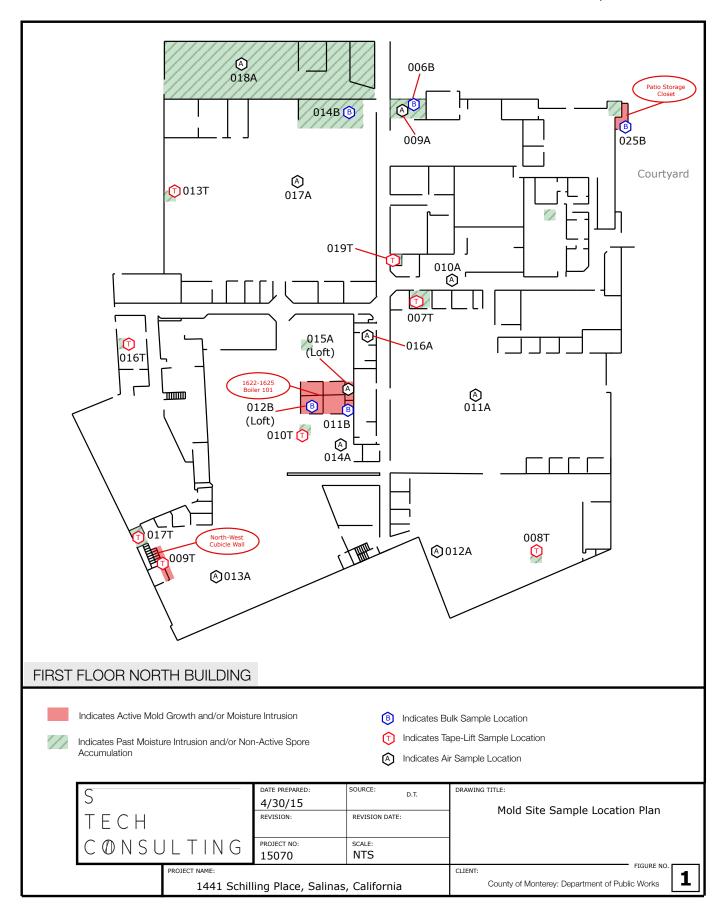
Moisture and mold assessments are indicative of conditions at the time of the inspection and do not necessarily reflect past or future conditions in the building. S Tech Consulting provides no guarantee that future conditions in the subject space will remain as determined during the time of the assessment.

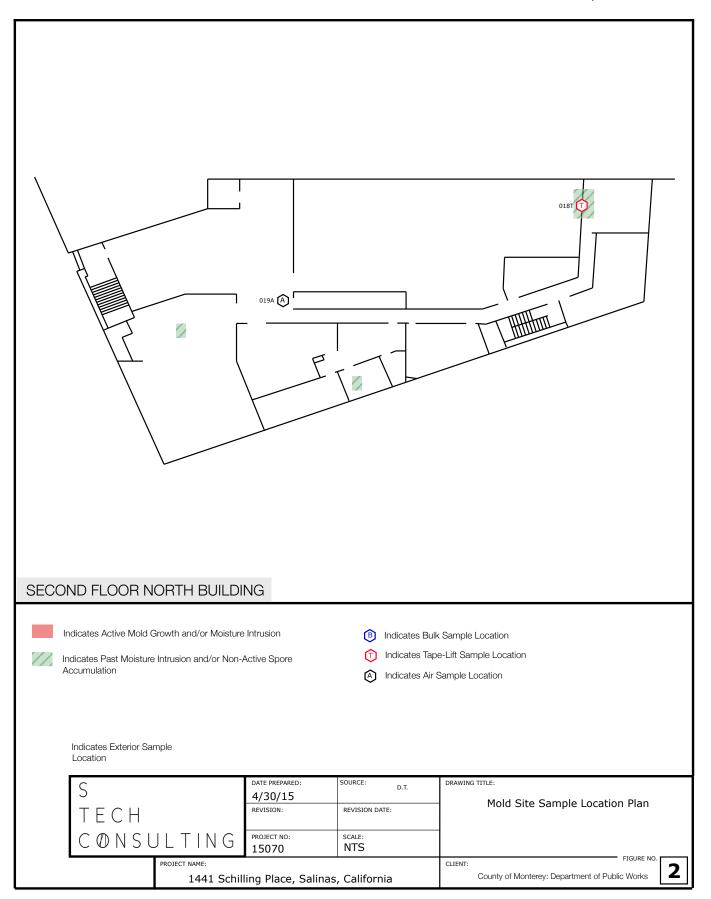
S Tech Consulting has performed this assessment in a professional manner using the degree of skill and care exercised for similar projects under similar conditions, by reputable and competent environmental consultants. S Tech Consulting shall not be responsible for conditions or consequences arising from relevant facts that were concealed, withheld, or not fully disclosed at the time that this assessment was conducted.

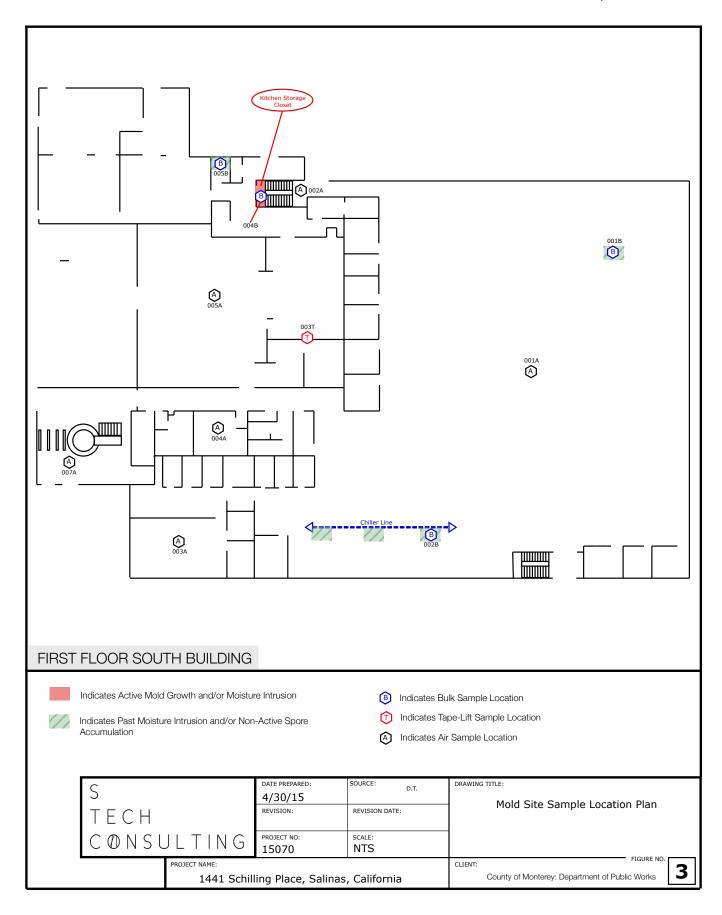
S Tech Consulting further states that no warranties, expressed or implied, are made regarding the quality, fitness, or results to be achieved as a consequence of this report or impacted by information not properly disclosed to S Tech at the time of this report. It further states that no responsibility is assumed for the control or correction of conditions or practices existing at the premises of the client.

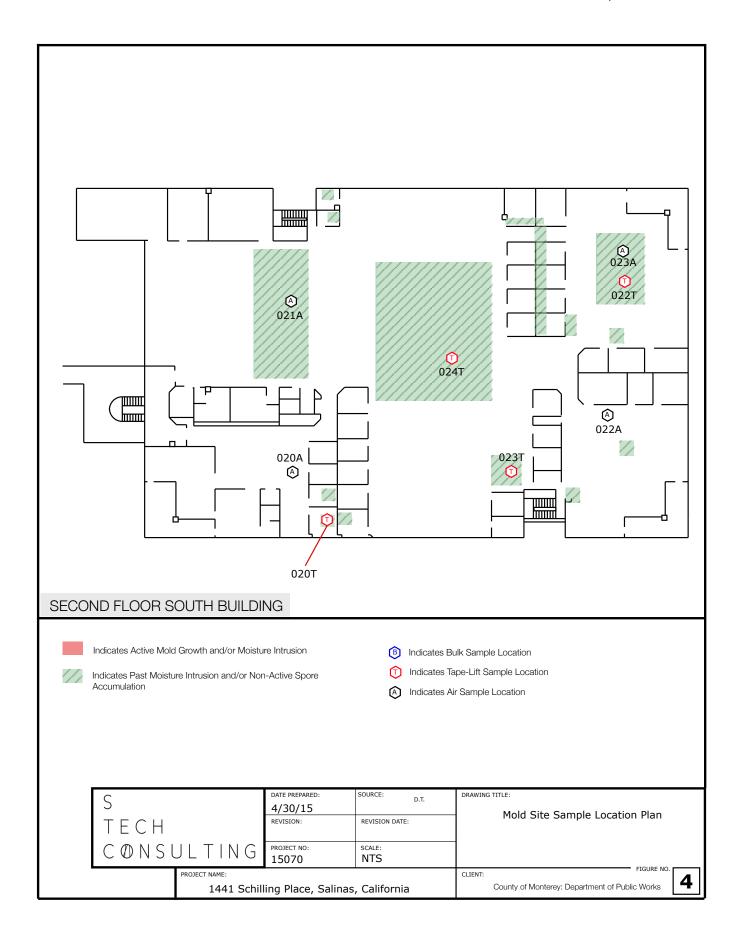
Fungal Assessment Report 1441 Schilling Place Salinas, California

Appendix A - Site Plans & Sample Locations









Fungal Assessment Report 1441 Schilling Place Salinas, California

Appendix B - Laboratory Analytical Reports



AmeriSci Los Angeles

24416 SOUTH MAIN STREET • SUITE 308 CARSON, CA 90745

TEL: (310) 834-4868 • FAX: (310) 834-4772

April 30, 2015

STech Consulting LLC Attn: Sean Tillema 484B Washington Street, #401 Monterey, CA 93940

RE: STech Consulting LLC Job Number 715041153 P.O. # 15070

15070; County Of Monterey; 1441 Schilling Place, Salinas, California

Dear Sean Tillema:

Enclosed are the microbiological analysis results for the following STech Consulting LLC Microbiological samples received at AmeriSci in Good condition, on Tuesday, April 28, 2015, for a 3 day turnaround:

001A, 002A, 003A, 004A, 005A, 006A, 007A, 008A, 009A, 010A, 011A, 012A, 013A, 014A, 015A, 016A, 017A, 018A, 019A, 020A, 021A, 022A, 023A, 024A, 025A, 026A, 027A, 028A

The 28 sample(s) were sent to AmeriSci via Hand Delivered. These samples were prepared and analyzed as indicated on the attached analysis sheets.

This report relates ONLY to the sample analysis as reported on the analysis sheets. AmeriSci assumes no responsibility for data interpretation or customer supplied data such as "sample location" or "area sampled". Complete analytical documentation is archived and available upon written request.

AmeriSci appreciates this opportunity to serve your organization. Please contact us for any further assistance or questions.

Sincerely,

Olga K. Katsuk Micro. Tech. Mgr.



24416 S. Main Street, Ste 308 Carson, California 90745 TEL: (310) 834-4868 • FAX: (310) 834-4772 Analyzed By:

Olga K. Katsuk

AmeriSci Job #: **715041153**FINAL REPORT

Client: STech Consulting LLC

Address: 484B Washington Street, #401

Monterey, CA 93940

Client Job#: 15070

Client Job Name: County Of Monterey; 1441 Schilling

Place, Salinas, California

Date Received: 04/28/15 Date Reported: 04/30/15

AmeriSci Number	71	504115	3-01	71	504115	3-02	71	504115	3-03	71	504115	3-04	
Sample Number		001A			002A			003A			004A		
Sample Name	SB1 - Cent	er Of S Area	outh Cubicle		Stairwe Dust In	ell / Build Up Area	SB1 - N/W	Offices	(1150 Wing)	SB1 - Women's Restroom			
Analysis Date	4	4/29/20	15	4	1/29/20	15	4	1/29/20	15	4	4/29/20	15	
Volume (L)		75			75			75			75		
Limit of Detection (LOD) (Count/M ³)		49			49			49			49		
Background Density		1+			1+			1			1+		
Other	Count/M ³	%	Raw Count	Count/M ³	%	Raw Count	Count/M ³	%	Raw Count	Count/M ³	%	Raw Count	
Pollen	ND	n/a	ND	ND	n/a	ND	ND	n/a	ND	49	n/a	1	
Fibers	198	n/a	4	99	n/a	2	99	n/a	2	198	n/a	4	
Mycelial Fragments	ND	n/a	ND	ND	n/a	ND	ND	n/a	ND	49	n/a	1	
Fungal Identification	Count/M ³	%	Raw Count	Count/M ³	%	Raw Count	Count/M ³	%	Raw Count	Count/M ³	%	Raw Count	
Alternaria sp.	ND			ND			ND			ND			
Ascospores	49	20	1	ND			49	20	1	148	19	3	
Aspergillus/Penicillium	49	20	1	99	14	2	49	20	1	99	13	2	
Basidiospores	148	60	3	296	43	6	148	60	3	494	63	10	
Chaetomium sp.	ND			ND			ND			ND			
Cladosporium sp.	ND			247	36	5	ND			ND			
Epicoccum sp.	ND			ND			ND			ND			
Ganoderma sp.	ND			ND			ND			ND			
Smut/Myxomycete/Periconia	ND			49	7	1	ND			49	6	1	
Stemphylium sp.	ND			ND			ND			ND			
Total Fungal Spores	246	100	5	691	100	14	246	100	5	790	100	16	



AmeriSci Los Angeles

24416 S. Main Street, Ste 308 Carson, California 90745 TEL: (310) 834-4868 • FAX: (310) 834-4772 Analyzed By:

Olga K. Katsuk

AmeriSci Job #: **715041153**FINAL REPORT

Client: STech Consulting LLC

Address: 484B Washington Street, #401

Monterey, CA 93940

Client Job#: 15070

Client Job Name: County Of Monterey; 1441 Schilling

Place, Salinas, California

Date Received: 04/28/15 Date Reported: 04/30/15

AmeriSci Number	71	504115	3-05	71	504115	3-06	71	504115	3-07	71	504115	3-08
Sample Number		005A			006A			007A			008A	
Sample Name	SB1	I - Cafe	teria	SE	31 - Kito	hen	SB1	- Main	Lobby	NB	1 - Lou	inge
Analysis Date	4	1/29/20 ⁻	15	4	1/29/20	15	4/29/2015			4	15	
Volume (L)		75			75			75				
Limit of Detection (LOD) (Count/M 3)		49			49			49			49	
Background Density		2			1+			1+			2+	
Other	Count/M ³	%	Raw Count	Count/M ³	%	Raw Count	Count/M ³	%	Raw Count	Count/M ³	%	Raw Count
Pollen	ND	n/a	ND	ND	n/a	ND	ND	n/a	ND	ND	n/a	ND
Fibers	296	n/a	6	148	n/a	3	148	n/a	3	198	n/a	4
Mycelial Fragments	ND	n/a	ND	ND	n/a	ND	ND	n/a	ND	ND	n/a	ND
Fungal Identification	Count/M ³	%	Raw Count	Count/M ³	%	Raw Count	Count/M ³	%	Raw Count	Count/M ³	%	Raw Count
Alternaria sp.	ND			ND			ND			ND		
Ascospores	99	14	2	99	40	2	99	22	2	ND		
Aspergillus/Penicillium	198	29	4	99	40	2	ND			247	38	5
Basidiospores	296	43	6	49	20	1	346	78	7	49	8	1
Chaetomium sp.	ND			ND			ND			ND		
Cladosporium sp.	49	7	1	ND			ND			296	46	6
Epicoccum sp.	ND			ND			ND			ND		
Ganoderma sp.	ND			ND			ND			ND		
Smut/Myxomycete/Periconia	49	7	1	ND			ND			49	8	1
Stemphylium sp.	ND			ND			ND			ND		
Total Fungal Spores	691	100	14	247	100	5	445	100	9	641	100	13



24416 S. Main Street, Ste 308 Carson, California 90745 TEL: (310) 834-4868 • FAX: (310) 834-4772 Analyzed By:

Olga K. Katsuk

AmeriSci Job #: **715041153**FINAL REPORT

Client: STech Consulting LLC

Address: 484B Washington Street, #401

Monterey, CA 93940

Client Job#: 15070

Client Job Name: County Of Monterey; 1441 Schilling

Place, Salinas, California

Date Received: 04/28/15 Date Reported: 04/30/15

AmeriSci Number	71:	504115	3-09	71	504115	3-10	71	504115	3-11	71	504115	3-12	
Sample Number		009A			010A			011A			012A		
Sample Name		ver Roo	om / Ceiling iing		Main Co Passag	onnecting e	NB 1 - Center Cubicle Area			NB 1 - For West Center Cubicle Area			
Analysis Date	4	4/29/20	15	2	1/29/20	15	2	1/29/20	15	4	4/29/2015		
Volume (L)		75			75			75			75		
Limit of Detection (LOD) (Count/M 3)		49			49			49			49		
Background Density		1			1+			1			1+		
Other	Count/M ³	%	Raw Count	Count/M ³	%	Raw Count	Count/M ³	%	Raw Count	Count/M ³	%	Raw Count	
Pollen	ND	n/a	ND	ND	n/a	ND	ND	n/a	ND	ND	n/a	ND	
Fibers	99	n/a	2	148	n/a	3	148	n/a	3	198	n/a	4	
Mycelial Fragments	ND	n/a	ND	ND	n/a	ND	99	n/a	2	49	n/a	1	
Fungal Identification	Count/M ³	%	Raw Count	Count/M ³	%	Raw Count	Count/M ³	%	Raw Count	Count/M ³	%	Raw Count	
Alternaria sp.	ND			ND			ND			ND			
Ascospores	ND			49	20	1	ND			49	14	1	
Aspergillus/Penicillium	49	25	1	99	40	2	49	17	1	49	14	1	
Basidiospores	99	50	2	99	40	2	198	67	4	198	57	4	
Chaetomium sp.	ND			ND			ND			ND			
Cladosporium sp.	49	25	1	ND			49	17	1	49	14	1	
Epicoccum sp.	ND			ND			ND			ND			
Ganoderma sp.	ND			ND			ND			ND			
Smut/Myxomycete/Periconia	ND			ND			ND			ND			
Stemphylium sp.	ND			ND			ND			ND			
Total Fungal Spores	197	100	4	247	100	5	296	100	6	345	100	7	



24416 S. Main Street, Ste 308 Carson, California 90745 TEL: (310) 834-4868 • FAX: (310) 834-4772 Analyzed By:

Olga K. Katsuk

AmeriSci Job #: **715041153**FINAL REPORT

Client: STech Consulting LLC

Address: 484B Washington Street, #401

Monterey, CA 93940

Client Job#: 15070

Client Job Name: County Of Monterey; 1441 Schilling

Place, Salinas, California

Date Received: 04/28/15 Date Reported: 04/30/15

AmeriSci Number	71:	504115	3-13	71	504115	3-14	71	504115	3-15	71	504115	3-16	
Sample Number		013A			014A			015A			016A		
Sample Name	NB 1 - N	/W Cub	oicle Area		•	oset 1625A / n Room	NB 1 - Mechanical Loft Above 1622A			NB 1 - Men's Restroom			
Analysis Date	4	4/29/20	15	_	1/29/20	15	2	1/29/20	15	2	4/29/2015		
Volume (L)		75			75			75			75		
Limit of Detection (LOD) (Count/M 3)		49			49			49			49		
Background Density		1+			3+			2			2		
Other	Count/M ³	%	Raw Count	Count/M ³	%	Raw Count	Count/M ³	%	Raw Count	Count/M ³	%	Raw Count	
Pollen	ND	n/a	ND	ND	n/a	ND	ND	n/a	ND	ND	n/a	ND	
Fibers	198	n/a	4	395	n/a	8	198	n/a	4	247	n/a	5	
Mycelial Fragments	49	n/a	1	49	n/a	1	ND	n/a	ND	ND	n/a	ND	
Fungal Identification	Count/M ³	%	Raw Count	Count/M ³	%	Raw Count	Count/M ³	%	Raw Count	Count/M ³	%	Raw Count	
Alternaria sp.	ND			ND			ND			ND			
Ascospores	ND			49	2	1	ND			148	15	3	
Aspergillus/Penicillium	49	10	1	198	9	4	148	20	3	99	10	2	
Basidiospores	247	50	5	494	23	10	296	40	6	444	45	9	
Chaetomium sp.	ND			247	11	5	ND			ND			
Cladosporium sp.	148	30	3	1136	52	23	247	33	5	198	20	4	
Epicoccum sp.	ND			49	2	1	ND			ND			
Ganoderma sp.	ND			ND			ND			ND			
Smut/Myxomycete/Periconia	49	10	1	ND			49	7	1	99	10	2	
Stemphylium sp.	ND			ND			ND			ND			
Total Fungal Spores	493	100	10	2173	100	44	740	100	15	988	100	20	



24416 S. Main Street, Ste 308 Carson, California 90745 TEL: (310) 834-4868 • FAX: (310) 834-4772 Analyzed By:

Olga K. Katsuk

AmeriSci Job #: **715041153**FINAL REPORT

Client: STech Consulting LLC

Address: 484B Washington Street, #401

Monterey, CA 93940

Client Job#: 15070

Client Job Name: County Of Monterey; 1441 Schilling

Place, Salinas, California

Date Received: 04/28/15 Date Reported: 04/30/15

AmeriSci Number	71	504115	3-17	71	504115	3-18	71	504115	3-19	71:	504115	3-20	
Sample Number		017A			018A			019A			020A		
Sample Name	NB 1 - N	/E Cubi	cles Area	NB 1 - N	I/E Nev	v Addition	NB 1 - Faci	lity Floo	or 2nd Floor	SB 2 -	Executi	ve Wing	
Analysis Date	4	1/29/20	15	4	1/29/20	15	4	1/30/20	15	4	4/30/201		
Volume (L)		75			75			75			75		
Limit of Detection (LOD) (Count/M ³)		49			49			49			49		
Background Density		1+			1+			1+			2		
Other	Count/M ³	%	Raw Count	Count/M ³	%	Raw Count	Count/M ³	%	Raw Count	Count/M ³	%	Raw Count	
Pollen	ND	n/a	ND	ND			ND			49	n/a	1	
Fibers	198	n/a	4	198	n/a	4	148	n/a	3	247	n/a	5	
Mycelial Fragments	ND	n/a	ND	49	n/a	1	ND			ND			
Fungal Identification	Count/M ³	%	Raw Count	Count/M ³	%	Raw Count	Count/M ³	%	Raw Count	Count/M ³	%	Raw Count	
Alternaria sp.	ND			ND			ND			ND			
Ascospores	49	13	1	ND			ND			ND			
Aspergillus/Penicillium	99	25	2	99	20	2	148	20	3	99	18	2	
Basidiospores	148	38	3	247	50	5	296	40	6	148	27	3	
Chaetomium sp.	ND			49	10	1	ND			ND			
Cladosporium sp.	ND			99	20	2	296	40	6	247	45	5	
Epicoccum sp.	ND			ND			ND			ND			
Ganoderma sp.	ND			ND			ND			ND			
Smut/Myxomycete/Periconia	99	25	2	ND			ND			49	9	1	
Stemphylium sp.	ND			ND			ND			ND			
Total Fungal Spores	395	100	8	494	100	10	740	100	15	543	100	11	



24416 S. Main Street, Ste 308 Carson, California 90745 TEL: (310) 834-4868 • FAX: (310) 834-4772 Analyzed By:

Olga K. Katsuk

AmeriSci Job #: **715041153**FINAL REPORT

Client: STech Consulting LLC

Address: 484B Washington Street, #401

Monterey, CA 93940

Client Job#: 15070

Client Job Name: County Of Monterey; 1441 Schilling

Place, Salinas, California

Date Received: 04/28/15 Date Reported: 04/30/15

AmeriSci Number	71	504115	3-21	71	504115	3-22	71	504115	3-23	71:	504115	3-24	
Sample Number		021A			022A			023A			024A		
Sample Name	SB 2 - Ce	enter Cu	bicle Area	SB 2 - S	/W Cub	oicle Area	SB 2 - S	/E Cub	icle Area		Entry - ' erior Co	West Side / ontrol	
Analysis Date		4/30/20	15	4	1/30/20	15	2	1/30/20	15	4	4/30/2015		
Volume (L)		75			75			75			75		
Limit of Detection (LOD) (Count/M 3)		49			49			49			49		
Background Density		1+			1+			1			1+		
Other	Count/M ³	%	Raw Count	Count/M ³	%	Raw Count	Count/M ³	%	Raw Count	Count/M ³	%	Raw Count	
Pollen	ND			ND	n/a	ND	ND			ND			
Fibers	99	n/a	2	198	n/a	4	49	n/a	1	148	n/a	3	
Mycelial Fragments	ND			ND	n/a	ND	ND			ND			
Fungal Identification	Count/M ³	%	Raw Count	Count/M ³	%	Raw Count	Count/M ³	%	Raw Count	Count/M ³	%	Raw Count	
Alternaria sp.	ND			ND			ND			49	4	1	
Ascospores	ND			ND			49	11	1	296	21	6	
Aspergillus/Penicillium	49	20	1	49	10	1	49	11	1	99	7	2	
Basidiospores	99	40	2	395	80	8	198	44	4	494	36	10	
Chaetomium sp.	ND			ND			ND			ND			
Cladosporium sp.	99	40	2	49	10	1	148	33	3	444	32	9	
Epicoccum sp.	ND			ND			ND			ND			
Ganoderma sp.	ND			ND			ND			ND			
Smut/Myxomycete/Periconia	ND			ND			ND			ND			
Stemphylium sp.	ND			ND			ND			ND			
Total Fungal Spores	247	100	5	493	100	10	444	100	9	1382	100	28	



24416 S. Main Street, Ste 308 Carson, California 90745 TEL: (310) 834-4868 • FAX: (310) 834-4772 Analyzed By:

Olga K. Katsuk

AmeriSci Job #: **715041153** FINAL REPORT

Client: STech Consulting LLC

Address: 484B Washington Street, #401

Monterey, CA 93940

Client Job#: 15070

Client Job Name: County Of Monterey; 1441 Schilling

Place, Salinas, California

Date Received: 04/28/15 Date Reported: 04/30/15

Air Cassette Analytical Report (SOP# 4001)

AmeriSci Number	71	504115	3-25	71:	504115	3-26	71	504115	3-27	71	504115	3-28
Sample Number		025A			026A			027A			028A	
Sample Name	Exterior - Courtyard / Exterior Control		Exterior -	East Si Contro	de / Exterior I	(QC Blar	nk	QC Blank			
Analysis Date	_	4/30/20	15	4	4/30/20	15	4	4/30/20	15	4/30/2015		
Volume (L)		75			75			0			0	
Limit of Detection (LOD) (Count/M 3)		49			49							
Background Density		2			1+			1			1	
Other	Count/M ³	%	Raw Count	Count/M ³	%	Raw Count	Count/M ³	%	Raw Count	Count/M ³	%	Raw Count
Pollen	296	n/a	6	296	n/a	6	ND			ND		
Fibers	198	n/a	4	148	n/a	3	I	n/a	1	1	n/a	1
Mycelial Fragments	49	n/a	1	ND			ND			ND		
Fungal Identification	Count/M ³	%	Raw Count	Count/M ³	%	Raw Count	Count/M ³	%	Raw Count	Count/M ³	%	Raw Count
Alternaria sp.	148	8	3	ND			ND			ND		
Ascospores	49	3	1	148	10	3	ND			ND		
Aspergillus/Penicillium	99	6	2	49	3	1	ND			ND		
Basidiospores	642	36	13	395	28	8	ND			ND		
Chaetomium sp.	49	3	1	ND			ND			ND		
Cladosporium sp.	543	31	11	494	34	10	ND			ND		
Epicoccum sp.	ND			ND			ND			ND		
Ganoderma sp.	ND			49	3	1	ND			ND		
Smut/Myxomycete/Periconia	198	11	4	296	21	6	ND			ND		
Stemphylium sp.	49	3	1	ND			ND			ND		
Total Fungal Spores	1777	100	36	1431	100	29	ND	ND	ND	ND	ND	ND

ND = None Detected

Results relate only to the items tested and are reported mathematically to significant figures.

Name/Title: Olga K. Katsuk / Micro. Tech. Mgr.

Reviev

Date: 04/30/15

Reviewed By: Kuism Songh

Date: 04/30/15

Name/Title: Krisna Songco / Micro. Analyst

Page 7 of 7

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484-B Washington Street, #401 Monterey, California 93940

T 831.883.8415
F 831.384.0359
info@stechconsulting.com
stechconsulting.com

Date:	4/25-4/20/15	Project:	et: 15070		
Client:	County of Monterey		Tech: Sean Tillema		
Site:	1441 Schilling Place, Salina	s, Californ	a		

Sample Log

Sample	Sample Type	Location	Volume (L)	Comments	
∞1A	Spore Trop	SBI - Cubicle Area	75		
002_A		- EAST Stairwell		Boild up of Dock in area	
003 A		- N/w offices (wing)		,	
004 A		- Women's Restroom			
065A		- Cofetenia			
000 A		- Kitchen			
007A		I - Main Lossa,			
00 ² A		NB1 - Lounge			
009 A		- Sekven Room		Ceilin Tile Staining	
OLOA		- Main Connecting Pessage			
OUA		- Centen Cubicle Area			
OLZA		- For west Center Cubide	Area		
013A	1	1 - N/W Cubicle Area	J		

Turn Around Requested	
-----------------------	--

Standard)/ 24HR. / RUSH

Chain of Custody

Analysis: Fungal Direct Exam

Results to: Sean@stechconsulting.com

Relinquished by:

_date: 4/27/15 time: 11250

Received by: BARELLANO V

__date:_____time:____

TECH CONSULTING

484-B Washington Street, #401

Monterey, California 93940 T 831.883.8415 F 831.384.0359 info@stechconsulting.com stechconsulting.com

Date:	4/25-4/26/cs Proje		ect: 15070		
Client:	County of Monterey		Tech: Sean Tillema		
Site:	1441 Schilling Place, Salinas, California				

Sample Log

Sample	Sample Type	Location	Volume (L)	Comments
OMA	SporeTrap	NB1 - Storage CloseL NB1 - 1625A Mechanical Loff Above 1622A	75	Odor isrue in voun
OLSA		- Mechanical LOFF Above 1622A		
dia		- Men's Restroom		
OUT A		- N/E Cobicles Area		
OLEA		- N/E New Addition		
OISA		- Facility Flow Flow		
020A		SB2 - Executive Wing		
021A		SB2 - Executive Wing - Conten - Cobide Area - 5/W cobide Area		
022 12		- 5/w cobiche Area		
6234		1 - S/E Cubile Aren		
024 A		- S/E Cobile Area Exterior - Entry - West Side		Exterior Control
OZSA		- Countryard		
026 A	1 5	- East Side	1	

			-
Analysis:	Fungal	Direct	Exam

Results to: Sean@stechconsulting.com

Standard / 24HR. / RUSH

Chain of Custody

Relinquished by: __

Received by:

B. ARELLANO

715041152

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T	E	C	H					
C	0	N	S	U	L	T	N	G

484-B Washington Street, #401 Monterey, California 93940 T 831.883.8415 F 831.384.0359 info@stechconsulting.com stechconsulting.com

Date:	425-4/2ce/18	Project:	15070	
Client:	County of Monterey		Tech: Sean Tillema	
Site	1441 Schilling Place Salina	e Californ		

Sample Log

Sample	Sample Type	Location	Volume (L)	Comments
02704	Spoke Thap	QC Blook	0	QC
028 4	+	<u></u>	8	QC QC
	7-			
	Harris III			

Turn Around Requested: Standard / 24HR. / RUSH	Chain of Custody	Ω		
Analysis: Fungal Direct Exam	Relinquished by:	2	_date: 4/27/10	_time:
Results to: Sean@stechconsulting.com	Received by:	APR 2 8 2015	_date:	_time:
		B ADELLANO	025	



24416 SOUTH MAIN STREET • SUITE 308 CARSON, CA 90745

TEL: (310) 834-4868 • FAX: (310) 834-4772

May 1, 2015

STech Consulting LLC Attn: Sean Tillema 484B Washington Street, #401 Monterey, CA 93940

RE: STech Consulting LLC Job Number 715041167 P.O. # 15070

15070; County Of Monterey; 1441 Schilling Place, Salinas, California

Dear Sean Tillema:

Enclosed are the microbiological analysis results for the following STech Consulting LLC Microbiological samples received at AmeriSci in Good condition, on Tuesday, April 28, 2015, for a 3 day turnaround:

001B, 002B, 003T, 004B, 005B, 005T, 006B, 007T, 008T, 009T, 010T, 011B, 012B, 013T, 014B, 015T, 016T, 017T, 018B, 019T, 020T, 021B, 022T, 023T, 024T, 025B

The 26 sample(s) were sent to AmeriSci via Fed Ex 8050 7043 3610. These samples were prepared and analyzed as indicated on the attached analysis sheets.

This report relates ONLY to the sample analysis as reported on the analysis sheets. AmeriSci assumes no responsibility for data interpretation or customer supplied data such as "sample location" or "area sampled". Complete analytical documentation is archived and available upon written request.

AmeriSci appreciates this opportunity to serve your organization. Please contact us for any further assistance or questions.

Sincerely,

Olga K. Katsuk Micro. Tech. Mgr.



24416 S. Main Street, Ste 308 Carson, California 90745 TEL: (310) 834-4868 • FAX: (310) 834-4772 AmeriSci Job #: **715041167**FINAL REPORT

Client: STech Consulting LLC

Address: 484B Washington Street, #401 Client Job Name: County Of Monterey; 1441 Schilling

Monterey, CA 93940 Place, Salinas, California

Date Received: 04/28/15
Direct Fungal Identification (SOP# 4016)

Date Reported: 04/30/15

,

AmeriSci Job # 715041167-01

Client Job#: 15070

Sample #: 001B Sample description: SB 1 - S/E Cubicle Area - Ceiling Tile / MinAnalysis Date: 04/30/15

Fungal Identification Estimated Amount Comments

No spores / growth detected.

AmeriSci Job # 715041167-02

Sample #: 002B Sample description: SB 1 - West Center Area - Ceiling Tile / Manalysis Date: 04/30/15

Fungal IdentificationEstimated AmountCommentsAspergillus/Penicillium sp.LightSpores only.BasidiosporesRareSpores only.

Mycelial Fragments

AmeriSci Job # 715041167-03

Sample #: 003T Sample description: SB 1 - Cafeteria Wall Tray Counter / Misc Analysis Date: 04/30/15

<u>Fungal Identification</u> <u>Estimated Amount</u> <u>Comments</u>

No spores / growth detected.

AmeriSci Job # 715041167-04

Sample #: 004B Sample description: SB 1 - Kitchen Storage - Drywall / SuspectAnalysis Date: 04/30/15

Fungal IdentificationEstimated AmountCommentsAspergillus/Penicillium sp.LightSpores only.

Chaetomium sp. Heavy Active fertile colonies.

Mycelial Fragments

AmeriSci Job # 715041167-05

Sample #: 005B Sample description: NB 1 - Lounge Ceiling Tile / Minor Staininc Analysis Date: 04/30/15

Fungal IdentificationEstimated AmountCommentsAspergillus/Penicillium sp.LightSpores only.BasidiosporesRareSpores only.

Minimum reporting limit is no fungi detected

Rare: 1 - 10 Spores Light: 11 - 100 Spores Moderate: 101 - 200 Spores Heavy: 200+ Spores



24416 S. Main Street, Ste 308 Carson, California 90745 TEL: (310) 834-4868 • FAX: (310) 834-4772 AmeriSci Job #: **715041167**FINAL REPORT

Client: STech Consulting LLC Client Job#: 15070

Address: 484B Washington Street, #401 Client Job Name: County Of Monterey; 1441 Schilling

Monterey, CA 93940 Place, Salinas, California

Direct Fungal Identification (SOP# 4016)

Date Received: 04/28/15 Date Reported: 04/30/15

AmeriSci Job # 715041167-06

Sample #: 005T Sample description: NB 1 - Lounge Ceiling Tile / Minor Staining Analysis Date: 04/30/15

<u>Fungal Identification</u> <u>Estimated Amount</u> <u>Comments</u>

No spores / growth detected.

AmeriSci Job # 715041167-07

Sample #: 006B Sample description: NB 1 - Server Room Ceiling Tile / Major St Analysis Date: 04/30/15

Fungal IdentificationEstimated AmountCommentsAspergillus/Penicillium sp.LightSpores only.BasidiosporesLightSpores only.

AmeriSci Job # 715041167-08

Sample #: 007T Sample description: NB 1 - N1 Telecom Drywall / Drywall StainAnalysis Date: 04/30/15

Fungal Identification Estimated Amount Comments

No spores / growth detected.

AmeriSci Job # 715041167-09

Sample #: 008T Sample description: NB 1 - Far West Center Cubicles - Ceilings Analysis Date: 04/30/15

Fungal Identification Estimated Amount Comments

No spores / growth detected.

AmeriSci Job # 715041167-10

Sample #: 009T Sample description: NB 1 - N/W Corner Wall / Circular Staining Analysis Date: 04/30/15

<u>Fungal Identification</u> <u>Estimated Amount</u> <u>Comments</u>

Penicillium sp. Heavy Active fertile colonies.

AmeriSci Job # 715041167-11

Sample #: 010T Sample description: NB 1 - 1621A - Drywall Above Ceiling / St Analysis Date: 04/30/15

Fungal Identification Estimated Amount Comments

No spores / growth detected.

Minimum reporting limit is no fungi detected

Rare: 1 - 10 Spores Light: 11 - 100 Spores Moderate: 101 - 200 Spores Heavy: 200+ Spores



24416 S. Main Street, Ste 308 Carson, California 90745 TEL: (310) 834-4868 • FAX: (310) 834-4772 AmeriSci Job #: **715041167**FINAL REPORT

Client: STech Consulting LLC Client Job#: 15070

Address: 484B Washington Street, #401 Client Job Name: County Of Monterey; 1441 Schilling

Monterey, CA 93940 Place, Salinas, California

Direct Fungal Identification (SOP# 4016)

Date Received: 04/28/15 Date Reported: 04/30/15

AmeriSci Job # 715041167-12

Sample #: 011B Sample description: NB 1 - 1622A Mechincal Loft Access Room Analysis Date: 04/30/15

Fungal IdentificationEstimated AmountCommentsAspergillus/Penicillium sp.LightSpores only.

Stachybotrys sp. Heavy Active fertile colonies.

AmeriSci Job # 715041167-13

Sample #: 012B Sample description: NB 1 - Boiler 101 Mechanical Loft / Water Analysis Date: 04/30/15

Fungal IdentificationEstimated AmountCommentsAlternaria sp.RareSpores only.

Mycelial Fragments

Stachybotrys sp. Rare Spores only.

AmeriSci Job # 715041167-14

Sample #: 013T Sample description: NB 1 - N/E Cubicle Area - Ceiling Tile / Mi Analysis Date: 04/30/15

Fungal IdentificationEstimated AmountCommentsAscosporesRareSpores only.Aspergillus/Penicillium sp.RareSpores only.Stachybotrys sp.RareSpores only.

AmeriSci Job # 715041167-15

Sample #: 014B Sample description: NB 1 - N/E Cubicle Area Ceiling Tile / Stai Analysis Date: 04/30/15

Fungal IdentificationEstimated AmountCommentsStachybotrys sp.RareSpores only.

AmeriSci Job # 715041167-16

Sample #: 015T Sample description: NB 1 - New Addition Ceiling Tile / Minor StAnalysis Date: 04/30/15

<u>Fungal Identification</u> <u>Estimated Amount</u> <u>Comments</u>

No spores / growth detected.

Minimum reporting limit is no fungi detected

Rare: 1 - 10 Spores Light: 11 - 100 Spores Moderate: 101 - 200 Spores Heavy: 200+ Spores



24416 S. Main Street, Ste 308 Carson, California 90745 TEL: (310) 834-4868 • FAX: (310) 834-4772 AmeriSci Job #:
715041167
FINAL REPORT

Client: STech Consulting LLC Client Job#: 15070

Address: 484B Washington Street, #401 Client Job Name: County Of Monterey; 1441 Schilling

Monterey, CA 93940 Place, Salinas, California

Direct Fungal Identification (SOP# 4016)

Date Received: 04/28/15

Date Reported: 04/30/15

AmeriSci Job # 715041167-17

Sample #: 016T Sample description: NB 1 - Offices To Warehouse / Minor Stai Analysis Date: 04/30/15

<u>Fungal Identification</u> <u>Estimated Amount</u> <u>Comments</u>

No spores / growth detected.

AmeriSci Job # 715041167-18

Sample #: 017T Sample description: NB 1 - N/W Stairwell / Water Damage To Analysis Date: 04/30/15

Fungal Identification Estimated Amount Comments

No spores / growth detected.

AmeriSci Job # 715041167-19

Sample #: 018B Sample description: NB 2 - Boiler 102 Drywall / Water Damage Analysis Date: 04/30/15

<u>Fungal Identification</u> <u>Estimated Amount</u> <u>Comments</u>

Mycelial Fragments

Stachybotrys sp. Heavy Spores only.

AmeriSci Job # 715041167-20

Sample #: 019T Sample description: NB 1 - Corridor Water Heater Closet Dryw Analysis Date: 04/30/15

Fungal Identification Estimated Amount Comments

Mycelial Fragments

Taeniolella sp. Rare Spores only.

AmeriSci Job # 715041167-21

Sample #: 020T Sample description: SB 2 - 2048D Ceiling Tile / Staining On Til Analysis Date: 04/30/15

<u>Fungal Identification</u> <u>Estimated Amount</u> <u>Comments</u>

No spores / growth detected.

Minimum reporting limit is no fungi detected

Rare: 1 - 10 Spores Light: 11 - 100 Spores Moderate: 101 - 200 Spores Heavy: 200+ Spores



24416 S. Main Street, Ste 308 Carson, California 90745 TEL: (310) 834-4868 • FAX: (310) 834-4772

AmeriSci Job #: 715041167 FINAL REPORT

Client: STech Consulting LLC

Address: 484B Washington Street, #401

Monterey, CA 93940

Client Job#: 15070

Client Job Name: County Of Monterey; 1441 Schilling

Place, Salinas, California

Date Received: 04/28/15 Date Reported: 04/30/15

Direct Fungal Identification (SOP# 4016)

AmeriSci Job # 715041167-22

Sample #: 021B Sample description: SB 2 - North Center Cubicle Area / Stainin Analysis Date: 04/30/15

Fungal Identification

Comments

Aspergillus/Penicillium sp.

Estimated Amount Rare

Spores only.

Mycelial Fragments

Stachybotrys sp.

Rare

Spores only.

AmeriSci Job # 715041167-23

Sample #: 022T Sample description: SB 2 - S/E Cubicle Area - Ceiling Tile / Stal Analysis Date: 04/30/15

Estimated Amount

Fungal Identification

Comments

No spores / growth detected.

AmeriSci Job # 715041167-24

Sample #: Sample description: SB 2 - 2041G Ceiling Tile / Staining On Til Analysis Date: 04/30/15 023T

Fungal Identification

Estimated Amount

Comments

No spores / growth detected.

AmeriSci Job # 715041167-25

Sample #: 024T Sample description: SB 2 - Center Cubicle Area / Staining On TAnalysis Date: 04/30/15

Fungal Identification Estimated Amount Comments

No spores / growth detected.

AmeriSci Job # 715041167-26

Sample #: 025B Sample description: NB 1 - Courtyard Storage - Drywall / VisiblAnalysis Date: 04/30/15

Estimated Amount Fungal Identification Comments

Cladosporium sp. Active fertile colonies. Heavy

Minimum reporting limit is no fungi detected

Rare: 1 - 10 Spores **Light: 11 - 100 Spores** Moderate: 101 - 200 Spores Heavy: 200+ Spores

Results relate only to the items tested.

Name/Title: Krisna Songco / Micro. Analyst Name/Title: Olga K. Katsuk / Micro. Tech. Mgr.

Signature: Wyuuf-Reviewed By:

Date: 04/30/15 Date: 05/01/15 Page 5 of 5

Q 715041167

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484-B Washington Street, #401 Monterey, California 93940 T 831.883.8415 F 831.384.0359 info@stechconsulting.com stechconsulting.com

Date:	4/28-4/27/18	Project: 15070		
Client:	County of Monterey		Tech: Sean Tillema	
Site:	1441 Schilling Place, Salina	s, Californ	ia	

Sample Log

Sample	Sample Type	Location	Volume (L)	Comments
0018	Bolk	SBI - S/E Concle Agec - Tite		Minox Staining
0023	上	- West Center Area -		Major Staining
063 T	Tape Lift	- West Center Area - - Cafeteria Wall, Counter		Misc. Staining - Black
0048	Bolle	Nog- Kitchen Storge - Dywall		Suspect Mad near floor
055T	Tape Lift	NB1 - Louige Ceilar Tile		Minor Steindy
006 B	Bulk	1 - Sexuer Room Ceiling Tile		Major Starroy
007 T	Tape Lift	- NI Telecon & Dryvall		Major Staining Above Tile
008 T		- NI Telecon & Dryvall FAR ceits - west (enter Cubicles - Til		Very minor tile steining
009T		- N/w Corner wall		Bacircular Staining
010-	1	- LOZIA - Drywall above - LOZIA - Ceiling Mechineal Loft - 162ZA Access Room		Staining - water leale
OILB	Bulk	- 1622A Access Room		Surpect Mold
0123	1	- Boiler 101 Loft		Water Danage to Dywall
613 T	Tape Lift	- NE Cosicle Aven - Ceiling		Minor Staining

Turn	Around	Requested:
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Standard 24HR. / RUSH

Chain of Custody

Analysis: Fungal Direct Exam

Relinquished by:

date: 4/27/15 time: 100

Results to: Sean@stechconsulting.com

Received by: APR 2 8 2015 CLOZS

B, ARELLANO

___time:_____.

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484-B Washington Street, #401 Monterey, California 93940 T 831.883.8415

F 831.384.0359 info@stechconsulting.com stechconsulting.com

Date:	4/25-4/20200	Project:	15070	200
Client:	County of Monterey		Tech: Sean Tillema	
Site:	1441 Schilling Place, Salina	s, Californ	ia	44

Sample Log

Sample	Sample Type	Location	Volume (L)	Comments
014B	Bulk	NBI - ME Coloicle Area Tile		Staining
OLTT	Tape Lift	- Newsition Ceiling		Mha Skiny
6he T	1	- officer to warnow		1 1
BITT		I - N/w Sterrwen		Water Doney to Dyerd !
018B	Bille	NB2 - Boilen LOZ Drywch		Water Panage / Staining
019 T	Tape Cifl	NBI - Comdor near claser Dryne	h	Staining on down
020 T	1	582 - 2048D Ceiling		Staining on Tile
0213	Bolk	1 - Center Cubicle Are		
0227	Tape-Life	- SIE Le Aren - The		
023 T		- 20416 -		
OZYT	1	- Center Lea -	/	4 4 4
025B	Bulk	NBI - Courtyard Storage - Dywali	/	Virible Black Staminy of Bon

Furn Around Requested:	um	Around	Requested:
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Standard / 24HR. / RUSH

Chain of Custody

Analysis: Fungal Direct Exam

Results to: Sean@stechconsulting.com

Relinquished by:

date: 4 27 65 time: 100

Received by:

APR 28 2015 at 25

__time:___

R ARELLANO