TERRA Environmental

TO: Jerry Miers
Facilities Project Supervisor
Facilities Services
California State University Los Angeles
5151 State University Drive
Los Angeles, CA 90032

LIMITED ASBESTOS SURVEY REPORT
King Hall – Transite Pipe at North end
5151 State University Drive
Los Angeles, CA 90032

Date Prepared: February 4, 2020

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I. Executive Summary and Purpose

At the request of Mr. Jerry Miers, Terra Environmental Services conducted a limited asbestos survey at a Transite Pipe located at the North end of King Hall Building at 5151 State University Drive Los Angeles, CA 90032. The Survey was authorized by Mr. Miers in acceptance of Terra Proposal for Asbestos Consulting Services.

II. Scope of services

The scope of this investigation included a visual inspection of the underground utilities Pipe, digital photography of key observations, sample collection of suspect asbestos containing building materials with laboratory analysis of samples, and production of this written report of findings, conclusions, and recommendations.

The building materials included in this assessment are those expected to be impacted during the renovation project. In general, the renovation project will involve the disturbance of the underground utilities' pipes.

III. Visual Survey, Sampling Methodology, and Analytical Procedures

a. Visual Survey

The Visual Survey consisted of a walk-through and visual inspection of the affected building. It included the identification of all suspect asbestos containing materials and the physical touching of suspect ACBM in an effort to determine the friability and condition of said materials.

In surveying the building, we used our training in identifying asbestos-containing materials, our familiarity with building construction and our general experience to locate potential sources of ACM and ACCM.

This evaluation was performed in accordance with the Asbestos-Containing Materials in Buildings rule prepared by the U.S. EPA. Destructive sampling collection methods were used by Terra Environmental on site representative. The asbestos building survey was performed by Mr. Xavier Avila AHERA Certified Asbestos Building Inspector (DOSH CSST Trainee) under the supervision of Mr. Israel Monsalvo a California, Division of Occupational Safety and Health (DOSH)-Certified Asbestos Consultant, CAC #04-3551 on February 03, 2020.

b. Sampling Methodology

The next phase of the survey was the selection of sampling areas and collection of bulk samples. Material sampling areas were grouped based on material homogeneity. A homogeneous material is one, which contains the same texture, color, and uniform, applied during the same general time period. Terra employed destructive sampling

methods for the collection of bulk samples. All sampled materials were in good condition at the time of the inspection and sample collection.

c. Analytical Procedures

The PLM Method is the most commonly used method to analyze building materials for the presence of asbestos. This method utilizes the optical properties of minerals to identify the selected constituent. The use of this method enables identification of the type and the percentage of asbestos in a given sample. The detection limit of the PLM method for asbestos identification is about one percent (1%) asbestos.

Because the State of California recognizes asbestos-containing construction material (ACCM) as any material, which contains greater than or equal to one tenth of one percent (0.1%) asbestos, materials containing "trace" amounts of asbestos are reported by Terra Environmental as ACCM in the State of California.

Terra Environmental collected a total of six (6) bulk samples of suspect ACM. The samples were transferred following proper chain of custody protocol to LA Testing located at 520 Mission Street South Pasadena, CA 91030, for analysis.

LA Testing is an accredited laboratory for bulk asbestos analysis under the National Institute of Standards and Technology, National Voluntary Laboratory Accreditation Program (Certification Number 200232-0).The samples were analyzed by Polarized Light Microscopy (PLM) with optical dispersion staining in accordance with the United States Environmental Protection Agency (EPA) Method (EPA 600/M4-82-020 per 40 CFR 763, subpart F, Appendix A).

IV. Discussion of Survey Findings and Recommendations

ASBESTOS

Asbestos-containing material (ACM) means any material containing more than 1% asbestos. Asbestos Standard for Construction 29 CFR 1926.1101.

Asbestos-Containing Construction Material (ACCM) is defined by California DOSH Title 8, Section 1529 (341.6 Registration Requirements) to mean any manufactured construction material which contains more than 1/10th of 1 percent asbestos by weight.

The visual inspection and bulk sample analysis results revealed the following Asbestos-Containing Materials:

Homogeneous Material	Location	Lab Sample Numbers	Asbestos detected	Quantity
3" Transite Pipe	North Trench SW Corner	A01 A02 A03 A04 A05 A06	Chrysotile 17%-18% Crocidolite 2% - 3%	100 Ln. Ft.

Recommendations for handling ACM:

Asbestos containing materials will be impacted by the renovation project activities.

*Removal and disposal of Asbestos containing **3" Transite Pipe** must be performed by a California Licensed Asbestos Abatement Contractor, in accordance with all applicable regulations, including but not limited to, 29 CFR 1926.1101 (OSHA), 40 CFR 763 (AHERA), 40 CFR Part 61 (NESHAPS) and 8 CAC 1529 (Cal/OSHA Asbestos), including mandatory and non-mandatory appendices as applicable, and Local Air Quality Management District regulations (SCAQMD 1403).*

Should materials different to those identified in this report or, other forms of suspect hazardous materials be discovered during the renovation process, the contractor should be instructed to cease all work activities which may initiate an exposure episode and notify the appropriate management personnel.

V. General Recommendations and Notes

Terra has endeavored to observe the exiting conditions within the subject property using generally accepted procedures. Regardless of the thoroughness of a survey, there is always a possibility some areas containing asbestos were overlooked or were inaccessible, or are different from those at specific sample locations. Therefore, conditions at every location may not be as anticipated by our field representative. In addition, demolition may uncover altered or differing conditions.

Written by:

Israel Monsalvo,
CA DOSH Certified Asbestos Consultant
CAC #04-3551
Terra Environmental Services Inc.

VI. Confidentiality and Limitations

This report has been prepared for the sole use of California State University Los Angeles. Material quantities are, in some cases, listed within this document. Those quantities are not intended to be used for removal bidding purposes. This document also is not intended as a contract manual; work methods and sequence, coordination of participants, applicable codes, engineering controls, required submittals and notifications should in all cases be addressed in a separate and independent bidding and contract document.

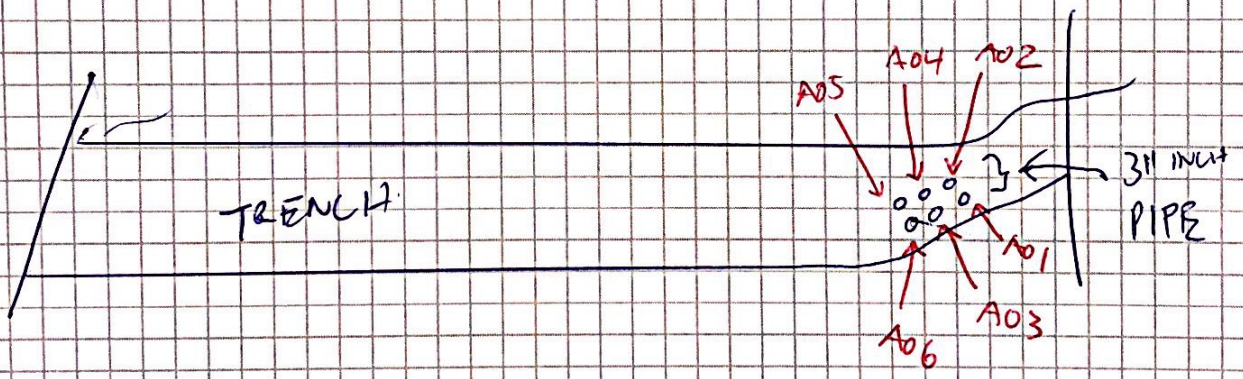
Site Photos

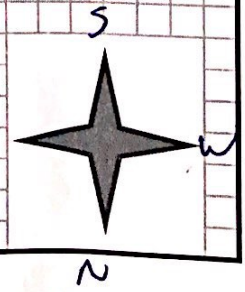
	
ACM transite	Underground utilities

Terra Environmental

Project # 72310
Date: 02.03.20
Type of Work: AS

Customer: CAL STATE LA.
Project Name:
Project Adress: 5151 STATE UNIVERSITY DR. LOS ANGELES CA 90032





12631 Imperial Hwy Suite A225 Santa Fe Springs, CA 90670
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LABORATORY RESULTS
AND COC

LA Testing

520 Mission Street South Pasadena, CA 91030

Tel/Fax: (323) 254-9960 / (323) 254-9982

http://www.LATesting.com / pasadenalab@latesting.com

LA Testing Order:	322002163
Customer ID:	32TESV78
Customer PO:	
Project ID:	

Attention:	Israel Monsalvo	**Phone:**	(562) 868-3777
	Terra Environmental Services	**Fax:**	
	12631 Imperial Hwy	**Received Date:**	02/03/2020 9:30 AM
	Suite A225	**Analysis Date:**	02/03/2020
	Santa Fe Springs, CA 90670	**Collected Date:**	
Project:	Cal State L.A. | 5151 State University Dr. Los Angeles CA 90032		

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

			Non-Asbestos		Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
A01	North trench SW corner pipe 1 - 3" Transite pipe	Brown/Gray Fibrous Homogeneous		80% Non-fibrous (Other)	18% Chrysotile 2% Crocidolite
322002163-0001					
A02	North trench SW corner pipe 2 - 3" Transite pipe	Gray Fibrous Homogeneous		80% Non-fibrous (Other)	18% Chrysotile 2% Crocidolite
322002163-0002					
A03	North trench SW corner pipe 3 - 3" Transite pipe	Gray Fibrous Homogeneous		80% Non-fibrous (Other)	17% Chrysotile 3% Crocidolite
322002163-0003					
A04	North trench SW corner pipe 4 - 3" Transite pipe	Gray Fibrous Homogeneous		80% Non-fibrous (Other)	18% Chrysotile 2% Crocidolite
322002163-0004					
A05	North trench SW corner pipe 5 - 3" Transite pipe	Gray Fibrous Homogeneous		80% Non-fibrous (Other)	18% Chrysotile 2% Crocidolite
322002163-0005					
A06	North trench SW corner pipe 6 - 3" Transite pipe	Gray Fibrous Homogeneous		80% Non-fibrous (Other)	18% Chrysotile 2% Crocidolite
322002163-0006					

Analyst(s)

Danielle Brand (4)

Tania Lopez (2)

Jerry Drapala Ph.D, Laboratory Manager
or Other Approved Signatory

EMSL maintains liability limited to cost of analysis. The above analyses were performed in general compliance with Appendix E to Subpart E of 40 CFR (previously EPA 600/M4-82-020 "Interim Method"), but augmented with procedures outlined in the 1993 ("final") version of the method. This report relates only to the samples reported above, and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. Interpretation and use of test results are the responsibility of the client. All samples received in acceptable condition unless otherwise noted. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST or any agency of the federal government. EMSL recommends gravimetric reduction for all non-friable organically bound materials prior to analysis. Estimation of uncertainty is available on request.

Samples analyzed by LA Testing South Pasadena, CA NVLAP Lab Code 200232-0, CA ELAP 2283

Initial report from: 02/03/2020 15:43:32

OrderID: 322002163

TERRA ENVIRONMENTAL

#322002163

Job Name - Location - Job Number	Billing Info:
CAL STATE LA. 5151 STATE UNIVERSITY DR. LOS ANGELES CA 90032	Terra Environmental Services Inc. Technician: XAVIER A / ISRAEL M. 12631 Imperial Hwy Suite A225, Santa Fe Springs CA 90760 Email: israel@terraeng.com/ulises@terraeng.com

Sample Analysis: PLM – Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

TAT: 24 HRS.

ID #	Material Description	HM	Location of Sample	Condition	Friable	Quantity
A01	3" TRANSITE PIPE	1	NORTH TRENCH SW CORNER PIPE 1	FAIR	N	APPROX. 100 LF
A02	↓	1	PIPE 2	↓	↓	↓
A03		1	PIPE 3			
A04		1	PIPE 4			
A05		1	PIPE 5			
A06		1	PIPE 6			

Notes

Relinquished By:	Date & Time
XAVIER A / ISRAEL M.	02.03.20
Received By:	**Date & Time**
[signature]	2/3/2020 930

CERTIFICATIONS

United States Department of Commerce
National Institute of Standards and Technology

Certificate of Accreditation to ISO/IEC 17025:2005

NVLAP LAB CODE: 200232-0

LA Testing

South Pasadena, CA

is accredited by the National Voluntary Laboratory Accreditation Program for specific services, listed on the Scope of Accreditation, for:

Asbestos Fiber Analysis

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2005. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer to joint ISO-ILAC-IAF Communique dated January 2009).

2017-07-01 through 2018-06-30

Effective Dates

For the National Voluntary Laboratory Accreditation Program

National Voluntary Laboratory Accreditation Program

SCOPE OF ACCREDITATION TO ISO/IEC 17025:2005

LA Testing
520 Mission Street
South Pasadena, CA 91030
Mr. Jerry Drapala Ph.D.
Phone: (323) 254-9960 Fax: (323) 254-9982
Email: jdrapala@latesting.com
http://www.latesting.com

ASBESTOS FIBER ANALYSIS **NVLAP LAB CODE 200232-0**

Bulk Asbestos Analysis

Code	*Description*
18/A01	EPA -- Appendix E to Subpart E of Part 763 -- Interim Method of the Determination of Asbestos in Bulk Insulation Samples
18/A03	EPA 600/R-93/116: Method for the Determination of Asbestos in Bulk Building Materials

Airborne Asbestos Analysis

Code	*Description*
18/A02	U.S. EPA's "Interim Transmission Electron Microscopy Analytical Methods-Mandatory and Nonmandatory-and Mandatory Section to Determine Completion of Response Actions" as found in 40 CFR, Part 763, Subpart E, Appendix A.

For the National Voluntary Laboratory Accreditation Program

TERRA Environmental

State of California
Division of Occupational Safety and Health
Certified Asbestos Consultant

Israel Monsalvo
Name



Certification No. 04-3551

Expires on 05/20/20

This certification was issued by the Division of Occupational Safety and Health as authorized by Sections 7180 et seq. of the Business and Professions Code.

California Department of PublicHealth

STATE OF CALIFORNIA
DEPARTMENT OF PUBLIC HEALTH

LEAD-RELATED CONSTRUCTION CERTIFICATE

INDIVIDUAL:	CERTIFICATE TYPE:	NUMBER:	EXPIRATION DATE:
	Lead Inspector/Assessor	LRC-00001220	9/1/2020
	Lead Project Monitor	LRC-00001219	9/1/2020

Israel Monsalvo

Disclaimer: This document alone should not be relied upon to confirm certification status. Compare the individual's photo and name to another valid form of government issued photo identification. Verify the individual's certification status by searching for Lead-Related Construction Professionals at www.cdph.ca.gov/programs/clppb or calling (800) 597-LEAD.

Israel Monsalvo, CAC, CDPH-I/A & PM
Cal/OSHA-Certified Asbestos Consultant #04-3551
CDPH-Certified Lead I/A, PM # 9699