FOR CONTRACT NO.: 10-0K0704

INFORMATION HANDOUT

MATERIALS INFORMATION

ASBESTOS AND LEAD-CONTAINING PAINT SURVEY REPORT

LIMITED ASBESTOS SURVEY REPORT

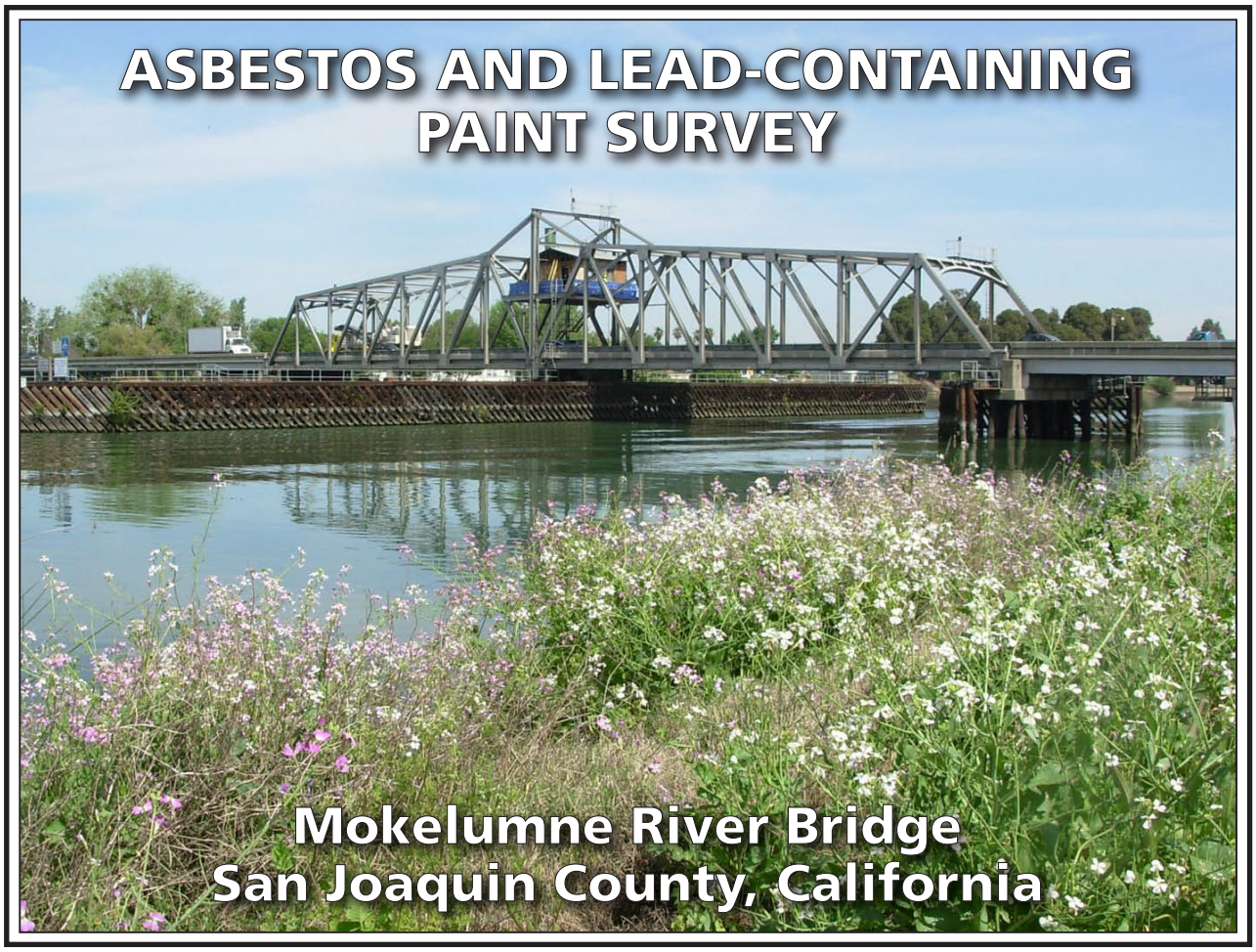
ASBESTOS, LEAD, AND MOLD SITE INSPECTION REPORT

TYPICAL CONDITIONS IMPOSED BY THE COAST GUARD DURING BRIDGE PROJECTS

MEMO FROM US COAST GUARD

ROUTE: 10-SJ-12-0.0

ASBESTOS AND LEAD-CONTAINING PAINT SURVEY



Mokelumne River Bridge
San Joaquin County, California

PREPARED FOR:

CALIFORNIA DEPARTMENT OF TRANSPORTATION – DISTRICT 6
HAZARDOUS WASTE BRANCH
2015 E. SHIELDS AVENUE, SUITE 100
FRESNO, CALIFORNIA 93726

PREPARED BY:

GEOCON CONSULTANTS, INC.
3160 GOLD VALLEY DRIVE, SUITE 800
RANCHO CORDOVA, CALIFORNIA 95742

GEOCON PROJECT NO. S9200-06-73
TASK ORDER NO. 73, EA NO. 10-0K0700

MAY 2009

GEOCON
CONSULTANTS, INC.
GEOTECHNICAL ■ ENVIRONMENTAL ■ MATERIALS

Project No. S9200-06-73
May 22, 2009

Ms. Susan Greenwood, Task Order Manager
Caltrans District 6
2015 E. Shields Avenue, Suite 100
Fresno, California 93726

Subject: MOKELUMNE RIVER BRIDGE (BRIDGE 29-0043)
SAN JOAQUIN COUNTY, CALIFORNIA
CONTRACT NO. 06A1141
TASK ORDER NO. 73, EA NO. 10-0K0700
ASBESTOS AND LEAD-CONTAINING PAINT SURVEY REPORT

Dear Ms. Greenwood:

In accordance with California Department of Transportation Contract No. 06A1141 and Task Order No. 73, we have performed an asbestos and lead-containing paint (LCP) survey of the subject bridge in San Joaquin County, California. The scope of services included surveying the bridge for suspect asbestos-containing materials and LCP, collecting bulk samples, and submitting the samples to laboratories for analyses.

The accompanying report summarizes the services performed and laboratory analysis.

The contents of this report reflect the views of Geocon Consultants, Inc., who are responsible for the facts and accuracy of the data presented herein. The contents do not necessarily reflect the official views or policies of the State of California or the Federal Highway Administration. This report does not constitute a standard, specification, or regulation.

Please contact us if you have questions concerning the contents of this report or if we may be of further service.

Sincerely,

GEOCON CONSULTANTS, INC.

David A. Watts, CAC
Senior Project Scientist

for John E. Juhrend, PE, CEG
Project Manager

DAW:JEJ:jaj

(1 + 1 CD) Addressee

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ASBESTOS AND LEAD-CONTAINING PAINT SURVEY REPORT

1.0 INTRODUCTION

This asbestos and lead-containing paint (LCP) survey report was prepared by Geocon Consultants, Inc. under Caltrans Contract No. 06A1141, Task Order No. 73 (TO-73).

1.1 Project Description

The project consists of the Mokelumne River Bridge (Bridge 29-0043), a movable swing bridge, on Highway 12 in San Joaquin County, California. We performed asbestos and LCP survey activities on the bridge deck, barrier rails, approaches, superstructure, and abutments at the project location. The bridge control room was undergoing renovation on the date of our survey. The project location is depicted on the Vicinity Map, Figure 1, and Site Plan, Figure 2.

1.2 General Objectives

The primary purpose of the scope of services outlined in TO-73 was to determine the presence and quantity of asbestos and deteriorated LCP at the project location prior to renovation activities. The information obtained from this investigation will be used by Caltrans for waste profiling, determining California Occupational Safety and Health Administration (Cal/OSHA) applicability, and coordinating asbestos and LCP disturbance activities.

> *It was <u>not</u> Geocon's intent during this inspection to conduct an evaluation of lead-based paint hazards in accordance with U.S. Department of Housing and Urban Development (HUD) guidelines. HUD protocol generally requires a very extensive sampling strategy that includes sampling of paint on each surface type (e.g., wall, ceiling, window sill, window frame, door frame, molding, etc.) in each room.*

2.0 BACKGROUND

2.1 Asbestos

The *Code of Federal Regulations (CFR),* 40 CFR 61, Subpart M, National Emissions Standards for Hazardous Air Pollutants (NESHAP) and Federal Occupational Safety and Health Administration (FED OSHA) classify asbestos-containing material (ACM) as any material or product that contains *greater than* 1% asbestos. Nonfriable ACM is classified by NESHAP as either Category I or Category II material defined as follows:

- **Category I** – asbestos-containing packings, gaskets, resilient floor coverings, and asphalt roofing products.
- **Category II** – all remaining types of nonfriable asbestos-containing material not included in Category I that when dry, cannot be crumbled, pulverized, or reduced to powder by hand pressure.

Regulated asbestos-containing material (RACM), a hazardous waste when friable, is classified as any manufactured material that contains *greater than* 1% asbestos by dry weight *and* is:

- Friable (can be crumbled, pulverized, or reduced to powder by hand pressure); or
- Category I material that has become friable; or
- Category I material that has been subjected to sanding grinding, cutting or abrading; or
- Category II nonfriable material that has a high probability of becoming crumbled, pulverized, or reduced to a powder during demolition or renovation activities.

Activities that disturb materials containing *any* amount of asbestos are subject to certain requirements of the Cal/OSHA asbestos standard contained in Title 8, CCR Section 1529. Typically, removal or disturbance of more than 100 square feet of material containing more than 0.1% asbestos must be performed by a registered asbestos abatement contractor, but associated waste labeling is not required if the material contains 1% or less asbestos. When the asbestos content of a material exceeds 1%, virtually all requirements of the standard become effective.

Materials containing greater than 1% asbestos are also subject to NESHAP regulations (40 CFR Part 61, Subpart M). RACM (friable ACM and nonfriable ACM that will become friable during demolition operations) must be removed from structures prior to demolition. Certain nonfriable ACM and materials containing 1% or less asbestos may remain in structures during demolition; however, there are waste handling/disposal issues and Cal/OSHA work requirements that must be addressed. Contractors are responsible for segregating and characterizing waste streams prior to disposal.

With respect to potential worker exposure, notification, and registration requirements, Cal/OSHA defines asbestos-containing construction material (ACCM) as construction material that contains greater than 0.1% asbestos (Title 8, CCR 341.6).

2.2 Lead Paint

Construction activities (including demolition) that disturb materials or paints containing *any* amount of lead are subject to certain requirements of the Cal/OSHA lead standard contained in Title 8, CCR, Section 1532.1. Deteriorated paint is defined by Title 17, CCR, Division 1, Chapter 8, §35022 as a surface coating that is cracking, chalking, flaking, chipping, peeling, non-intact, failed, or otherwise separated from a component. Demolition of a deteriorated LCP component would require waste characterization and appropriate disposal. Intact LCP on a component is currently accepted by most landfill facilities; however, contractors are responsible for segregating and characterizing waste streams prior to disposal.

For a solid waste containing lead, the waste is classified as California hazardous when: 1) the total lead content equals or exceeds the respective Total Threshold Limit Concentration (TTLC) of 1,000 milligrams per kilogram (mg/kg); or 2) the soluble lead content equals or exceeds the respective Soluble Threshold Limit Concentration (STLC) of 5 milligrams per liter (mg/l) based on the standard Waste Extraction Test (WET). A waste has the potential for exceeding the lead STLC when the waste's total lead content is greater than or equal to ten times the respective STLC value since the WET uses a 1:10 dilution ratio. Hence, when total lead is detected at a concentration greater than or equal to 50 mg/kg, and assuming that 100 percent of the total lead is soluble, soluble lead analysis is required. Lead-containing waste is classified as "Resource, Conservation, and Recovery Act" (RCRA) hazardous, or Federal hazardous, when the soluble lead content equals or exceeds the Federal regulatory level of 5 mg/l based on the Toxicity Characteristic Leaching Procedure (TCLP).

The above regulatory criteria are based on chemical concentrations. Wastes may also be classified as hazardous based on other criteria such as ignitability; however, for the purposes of this investigation, toxicity (i.e., lead concentrations) is the primary factor considered for waste classification since waste generated during the construction activities would not likely warrant testing for ignitability or other criteria. Waste that is classified as either California hazardous or RCRA hazardous requires management as a hazardous waste.

Potential hazards exist to workers who remove or cut through LCP coatings during demolition. Dust containing hazardous concentrations of lead may be generated during scraping or cutting materials coated with lead-containing paint. Torching of these materials may produce lead oxide fumes. Therefore, air monitoring and/or respiratory protection may be required during the demolition of materials coated with LCP. Guidelines regarding regulatory provisions for construction work where workers may be exposed to lead are presented in the Title 8, CCR, Section 1532.1.

2.3 Architectural Drawings and Previous Survey Activities

Caltrans provided bridge architectural drawings for our review. We observed no evidence of asbestos-containing products or lead-containing paints specified on the drawings reviewed. Caltrans also provided a previous survey report by National Analytical Laboratories, Inc. titled *Mokelumne River Bridge House*, dated April 26, 2005, that indicated the presence of ACCM sheetrock systems (0.25% asbestos) in the bridge control room. The report also indicated the presence of paint (used on control room interior and exterior surfaces) with total lead concentrations ranging from 56 to 273,743 mg/kg.

3.0 SCOPE OF SERVICES

Mr. David Watts, a California-Certified Asbestos Consultant (CAC), certification No. 98-2404 (expiration September 16, 2009), and Certified Lead Paint Inspector/Assessor and Project Monitor with the California Department of Public Health (DPH), certification numbers I-1734 and M-1734 (expiration December 4, 2009), performed the asbestos and LCP survey at the project location on April 21, 2009.

3.1 Asbestos

Suspect ACM were grouped into homogeneous areas with representative samples randomly collected from each. In addition, each potential ACM was evaluated for friability. A total of four bulk asbestos samples representing two material types were collected.

Our procedures for inspection and sampling in accordance with TO-73 are discussed below:

- Collected bulk asbestos samples after first wetting friable material with a light mist of water. The samples were then cut from the substrate and transferred to a labeled container. Note that when multiple samples were collected, the sampling locations were distributed throughout the homogeneous area (spaces where the material was observed).
- Relinquished bulk asbestos samples under chain-of-custody protocol to EMSL Analytical, Inc., a California-licensed and Caltrans-approved subcontractor, for asbestos analysis in accordance with United States Environmental Protection Agency (EPA) Test Method 600/R-93/116 using polarized light microscopy (PLM). EMSL Analytical, Inc. is a laboratory accredited by the National Institute of Standards and Technology National Voluntary Laboratory Accreditation Program (NIST-NVLAP) for bulk asbestos fiber analysis. The laboratory analyses were requested on a standard turn-around-time.

Sample group identification numbers, material descriptions, approximate quantities, friability assessments, and photo references are summarized on Table 1. Approximate sample locations are presented on Figure 2. Materials represented by the samples collected are shown in the attached photographs.

3.2 Lead Paint

One bulk paint sample was collected from suspect LCP observed at the project location. Our sampling procedures in accordance with TO-73 are discussed below:

- Collected the bulk sample of suspect LCP using techniques presented in HUD guidelines. In addition, the painted area was evaluated for evidence of deterioration such as flaking or cracking.
- Relinquished the bulk LCP sample under chain-of-custody protocol to Advanced Technology Laboratories, a California-licensed and Caltrans-approved subcontractor, for lead analysis in accordance with EPA Test Method 6010B. Advanced Technology Laboratories is accredited by the DPH for lead analysis. The laboratory analysis was requested on a standard turn-around-time.

The paint sample identification number, description, and photo references are summarized on Table 2. The approximate sample location is presented on Figure 2. Material represented by the sample collected is shown in the attached photographs.

4.0 INVESTIGATIVE RESULTS

4.1 Asbestos Analytical Results

No asbestos was detected in samples of the suspect materials collected during our survey. A summary of the analytical laboratory test results for asbestos is presented on Table 1. Reproductions of the laboratory report and chain-of-custody documentation are presented in Appendix A.

4.2 Paint Analytical Results

A sample representing intact gray paint observed on the bridge superstructure exhibited a total lead concentration of 140,000 mg/kg and a soluble (TCLP) lead concentration of 1.8 mg/l.

A summary of the analytical laboratory test results for paint is presented on Table 2. Reproductions of the laboratory reports and chain-of-custody documentation are presented in Appendix A.

5.0 RECOMMENDATIONS

Based on our findings, we recommend the following:

5.1 Asbestos

NESHAP regulations do not require that the asbestos-containing sheetrock systems identified in the National Analytical Laboratories, Inc. report be removed prior to renovation activities or treated as hazardous waste. However, the disturbance of this material is still covered by the Cal/OSHA asbestos standard (Title 8, CCR Section 1529). Geocon recommends that a licensed and certified asbestos abatement contractor perform activities that would disturb the asbestos-containing sheetrock systems. Contractors are responsible for informing the landfill of the contractor's intent to dispose of asbestos-containing waste. Some landfills may require additional waste characterization. Contractors are responsible for segregating and characterizing waste streams prior to disposal.

We also recommend written notification to contractors (that will be conducting renovation or related activities) and bridge control room employees of the presence of asbestos (i.e., provide the contractor[s] and employees with a copy of this report and a list of asbestos removed by a licensed contractor[s] registered with Cal/OSHA for asbestos-related work during subsequent abatement activities). Contractors not trained for asbestos work should be instructed not to disturb asbestos.

In accordance with the San Joaquin Valley Unified Air Pollution Control District, Rule 4002, written notification is required ten working days prior to commencement of *any* demolition activity (whether asbestos is present or not). In accordance with Title 8, CCR 341.9, written notification to the nearest Cal/OSHA district office is required at least 24 hours prior to certain asbestos-related work.

5.2 Lead Paint

Gray LCP identified on the bridge would be considered a California hazardous waste if stripped, blasted, or otherwise separated from the substrate.

The Cal/OSHA lead standard will apply to any maintenance, renovation, or demolition activity that disturbs LCP identified at the project location. In accordance with Title 8, CCR, Section 1532.1(p), written notification to the nearest Cal/OSHA district office is required at least 24 hours prior to certain lead-related work.

6.0 REPORT LIMITATIONS

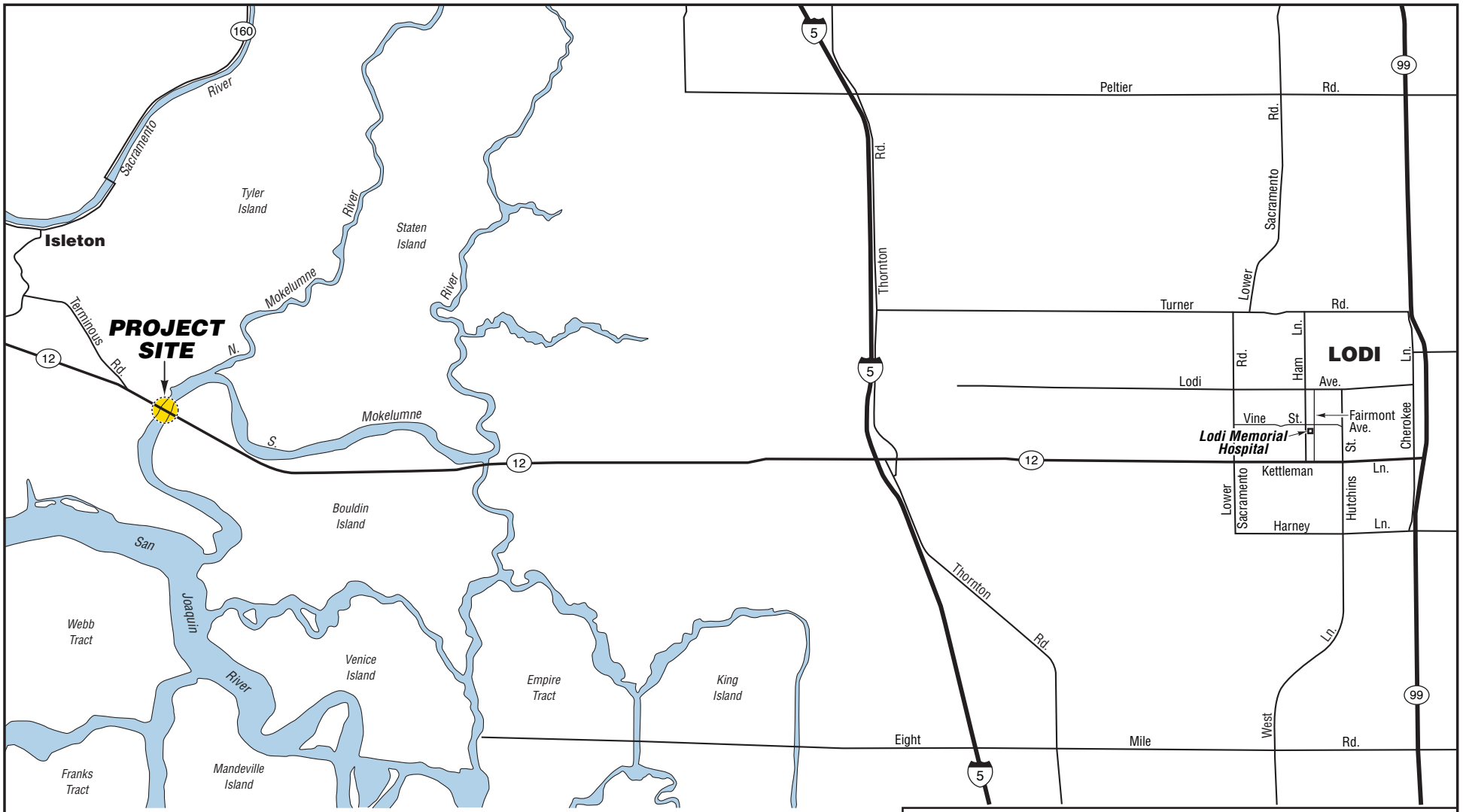
This asbestos and LCP survey was conducted in conformance with generally accepted standards of practice for identifying and evaluating asbestos and LCP in structures. The survey addressed only those structures identified in Section 1.1. Due to the nature of structure surveys, asbestos and LCP use, and laboratory analytical limitations, some ACM or LCP at the project location may not have been identified. Spaces such as cavities, voids, crawlspaces, and pipe chases may have been concealed to our investigator. Previous renovation work may have concealed or covered spaces or materials or may have partially demolished materials and left debris in inaccessible areas. Additionally, renovation activities may have partially replaced ACM with indistinguishable non-ACM. Asbestos and/or LCP may exist in areas of the structures that were not accessible or sampled in conjunction with this TO.

During renovation or demolition operations, suspect materials may be uncovered which are different from those accessible for sampling during this assessment. Personnel in charge of renovation/demolition should be alerted to note materials uncovered during such activities that differ substantially from those included in this or previous assessment reports. If suspect ACM and/or LCP are found, additional sampling and analysis should be performed to determine if the materials contain asbestos or lead.

This report has been prepared exclusively for Caltrans. The information contained herein is only valid as of the date of the report and will require an update to reflect additional information obtained.

This report is not a comprehensive site characterization and should not be construed as such. The findings as presented in this report are predicated on the results of the limited sampling and laboratory testing performed. In addition, the information obtained is not intended to address potential impacts related to sources other than those specified herein. Therefore, the report should be deemed conclusive with respect to only the information obtained. We make no warranty, express or implied, with respect to the content of this report or any subsequent reports, correspondence or consultation. Geocon strived to perform the services summarized herein in accordance with the local standard of care in the geographic region at the time the services were rendered.

The contents of this report reflect the views of the author who is responsible for the facts and accuracy of the data presented herein. The contents do not necessarily reflect the official views or policies of the State of California or the Federal Highway Administration. This report does not constitute a standard, specification or regulation.



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Scale in Miles

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PHONE 916 852-9118 – FAX 916 852-9132

Mokelumne River Bridge

San Joaquin County, California

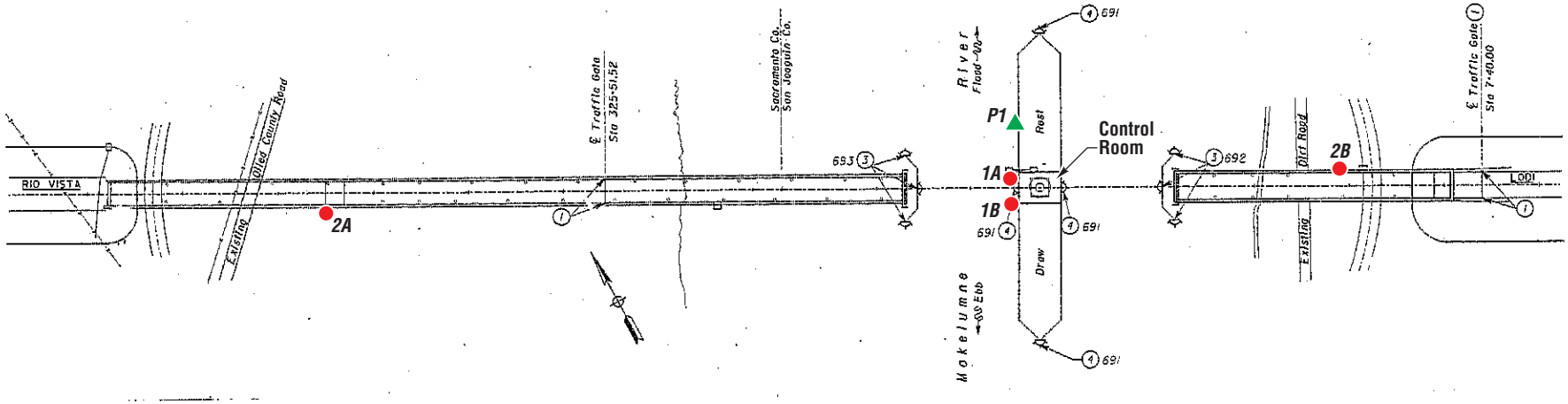
GEOCON Proj. No. S9200-06-73

Task Order No. 73

VICINITY MAP

May 2009

Figure 1



LEGEND:

- ● Approximate Asbestos Sample Location
- ▲ Approximate Paint Sample Location

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Mokelumne River Bridge		
San Joaquin County, California	**SITE PLAN**	
GEOCON Proj. No. S9200-06-73		
Task Order No. 73	May 2009	Figure 2

Photo 1 – Mokelumne River Bridge

Photo 2 – Deck joint seal (non-suspect)

Photo 3 – Abutment and drainpipe (non-suspect)

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PHOTOGRAPHS 1, 2, & 3		
Mokelumne River Bridge San Joaquin County, California		
S9200-06-73		May 2009

Photo 4 – Underside of east bridge approach

Photo 5 – Bridge deck

Photo 6 – Non-slip epoxy applied to stairs

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PHOTOGRAPHS 4, 5, & 6		
Mokelumne River Bridge San Joaquin County, California		
S9200-06-73		May 2009

Photo 7 – Deck drain (non-suspect)

Photo 8 – Expansion joint fill material

Photo 9 – Underside of west bridge approach

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PHOTOGRAPHS 7, 8, & 9		
Mokelumne River Bridge San Joaquin County, California		
S9200-06-73		May 2009

TABLE 1
SUMMARY OF ASBESTOS ANALYTICAL RESULTS
MOKELUMNE RIVER BRIDGE
CALTRANS CONTRACT 06A1141, TASK ORDER NO. 73, EA 10-0K0700
SAN JOAQUIN COUNTY, CALIFORNIA

Polarized Light Microscopy (PLM) - EPA Test Method 600/R-93/116

Sample No.	Description of Material	Approximate Quantity	Friable	Site Photos	Asbestos Content
1A	Non-slip epoxy texturing applied to paint	NA	NA	6	ND
1B					ND
2A	Expansion joint fill material	NA	NA	8	ND
2B					ND

Notes:

NA = Not applicable (no asbestos detected)

ND = Not detected

TABLE 2
SUMMARY OF PAINT ANALYTICAL RESULTS - TOTAL AND SOLUBLE LEAD
MOKELUMNE RIVER BRIDGE
CALTRANS CONTRACT 06A1141, TASK ORDER NO. 73, EA 10-0K0700
SAN JOAQUIN COUNTY, CALIFORNIA

Paint Sample No.	Paint Description	Approximate Quantity Peeling/Flaking	Site Photos	Total Lead (mg/kg)	TCLP Lead (mg/l)
P1	Gray (bridge superstructure)	Intact	1, 5, and 6	140,000	1.8

Notes:

mg/kg = milligrams per kilogram (EPA Test Method 6010)
TCLP = Toxicity Characteristic Leaching Procedure (EPA Test Method 1311)
mg/l = milligrams per liter

APPENDIX A

EMSL Analytical, Inc
2235 Polvorosa Ave , Suite 230, San Leandro, CA 94577
Phone: (510) 895-3675 Fax: (510) 895-3680 Email: milpitaslab@emsl.com

Attn: **David Watts**
Geocon Consultants
6671 Brisa Street
Livermore, CA 94550

Fax: (925) 371-5915 Phone: (925) 371-5900
Project: **S9200-06-73, Moke Lumne BR., San Joaquin County, CA**

Customer ID:	GECN21
Customer PO:	S9200-06-73
Received:	04/22/09 10:00 AM
EMSL Order:	090902953
EMSL Proj:	S9200-06-**
Analysis Date:	4/26/2009
Report Date:	4/27/2009

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

			Non-Asbestos				Asbestos
Sample	**Location**	**Appearance**	**%**	**Fibrous**	**%**	**Non-Fibrous**	**% Type**
1A-Non-slip Textured Paint *090902953-0001*		Red Non-Fibrous Heterogeneous			100%	Non-fibrous (other)	**None Detected**
1B-Non-slip textured Paint *090902953-0002*		Red Non-Fibrous Heterogeneous			100%	Non-fibrous (other)	**None Detected**
2A-Joint Fill Material *090902953-0003*		Brown/Gray Fibrous Heterogeneous	75%	Cellulose	25%	Non-fibrous (other)	**None Detected**
2B-Joint Fill Material *090902953-0004*		Brown/Gray Fibrous Heterogeneous	75%	Cellulose	25%	Non-fibrous (other)	**None Detected**

Analyst(s)

Alan Tahran (4)

Baojia Ke, Laboratory Manager
or other approved signatory

Due to magnification limitations inherent in PLM, asbestos fibers in dimensions below the resolution capability of PLM may not be detected. Samples reported as <1% or none detected may require additional testing by TEM to confirm asbestos quantities. The above test report relates only to the items tested and may not be reproduced in any form without the express written approval of EMSL Analytical, Inc. EMSL's liability is limited to the cost of analysis. EMSL bears no responsibility for sample collection activities or analytical method limitations. Interpretation and use of test results are the responsibility of the client.Samples received in good condition unless otherwise noted.
NVLAP Lab Code 101048-3

THIS IS THE LAST PAGE OF THE REPORT.

0909092953

Chain of C[illegible]ly Form

Analyze sample sets until posi[illegible] ☐ Yes ☒ No

Project No.: $9200-06-73 Client Name: GEDCON

Report Results to: D. WATTS Office Location: LIVERMORE, CA Analytical Fee (per sample): $ flm Date(s) Inspected: 21 APR 2009

Consultants Ph. #: (925) 371-5900 Consultants Fax #: (925) 371-5915 Other Comments: STD TAT

Site Name: MOKELUMNE BR. Building No. — Site Address: SAN JOAQUIN CO., CA

Material Code	Sample Number: Site No.	Sample Number: Bldg. No.	Sample Number: Material Link No.	A	B	C	D	E	F	G	H	I	J	K	Not Sampled	Material Description
			1	X	X											NON-SLIP / TEXTURED PAINT
			2	X	X											JOINT FILL MATERIAL

Relinquished by: Print Name: D. WATTS Signature: WATTS Date/Time: 21 APR 2009 1530 Received by: Print Name: Signature: UPS Date/Time: 21 APR 2009 1530

Relinquished by: Print Name: Signature: Date/Time: Received by: Print Name: Signature: SBrewer Date/Time: 4/[illegible]/09 @ 10:10 d/o

Flooring
- CFT = Ceramic floor tile grout/mastic (M)
- F = Floor material-Generic(M)
- FMAS = Floor mastic(M)
- FT = Vinyl composite tile floor (M)
- FS = Vinyl composite sheet floor (M)
- FLC = Floor leveling compound (M)
- TERR = Terrazzo flooring (M)

Wall/Ceiling/Other
- ACOU = Textured acoustical (sprayed) (S)
- BBM = Baseboard mastic (M)
- CM = Ceiling (unspecified type) (M)
- CS = Ceiling (unspecified type) (S)
- CP = Ceiling panel - Lay-in (M)
- CMAS = Ceiling mastic (M)
- CT = Ceiling tile - Splined or nailed (M)
- CTG = Ceiling tile - Glued (M)
- CWT = Ceramic wall tile grout & mastic(M)
- DEBM = Debris (unspecified) (M)
- DEBS = Debris (unspecified) (S)
- DEBT = Debris (unspecified) (TSI)
- DOOR = Door core insulation - Fire door (M)
- OFM = Other friable material (M)
- OFS = Other friable material (S)
- ONFM = Other nonfriable material (M)
- ONFS = Other nonfriable materials (S)
- PL = Plaster (wall or ceiling) (S)
- SHR = Sheetrock (no joint compound) (M)
- SHRJC = Sheetrock with joint compound (M)
- STUC = Stucco (S)
- FP = Structural fireproofing (S)
- TRAN = Transite panel (M)
- TX = Surface texturing on walls/ceiling (S)
- WM = Wall (unspecified type) (M)
- WS = Wall (unspecified type) (S)
- WT = Wall tile - Splined or nailed (M)
- WTG = Wall tile - Glued on (M)

Piping/TSI
- FI = Fitting insulation (type not specified) (TSI)
- FICHW = Fitting - Chilled water system (TSI)
- FICON = Fitting - Condensate (TSI)
- FIDCW = Fitting - Domestic cold water (TSI)
- FIDHW = Fitting - Domestic hot water (TSI)
- FIHHW = Fitting - Heating hot water (TSI)
- FISTM = Fitting - Steam (TSI)
- DI = Duct insulation (TSI)
- DTAPE = HVAC - Duct joint tape/compound (M)
- DFLEX = HVAC - Flexible duct/flex duct joint (M)
- DFLUE = Mech. equipment - Flue insulation (TSI)
- MGSKT = Mech. equipment-Gasket (M)
- MTANK = Mech. equipment-Tank insulation (TSI)
- PI = Pipe insulation (type not specified) (TSI)
- PICHW = Pipe insulation-Chilled water system (TSI)
- PICON = Pipe insulation-Condensate (TSI)
- PIDCW = Pipe insulation-Domestic cold water (TSI)
- PIDHW = Pipe insulation-Domestic hot water (TSI)
- PIHHW = Pipe insulation-Heating hot water (TSI)
- PISTM = Pipe insulation-Steam (TSI)
- PTRAN = Pipe-Transite (M)

Roofing
- RF = Roofing material (M)
- RFAG = Asphalt and gravel (M)
- RFAT = Asphalt roof tile (M)
- RFFLS = Flashing (M)
- RFFLT = Felt material (M)
- RFMAS = Penetration mastic (M)
- RFROL = Rolled sheet type (M)
- RTRAN = Transite shingle (M)

(M) = Miscellaneous material
(S) = Surfacing material
(TSI) = Thermal System Insulation

4

0909092953

April 29, 2009

ELAP No.: 1838
NELAP No.: 02107CA
NEVADA.: CA-401
CSDLAC No.: 10196

Workorder No.: 105160

Dave Watts
Geocon Consultants, Inc.
6671 Brisa Street
Livermore, CA 94550

TEL: (925) 371-5900
FAX: (925) 371-5915

RE: MOKELUMNE BRIDGE, S9200-06-73

Attention: Dave Watts

Enclosed are the results for sample(s) received on April 22, 2009 by Advanced Technology Laboratories . The sample(s) are tested for the parameters as indicated in the enclosed chain of custody in accordance with the applicable laboratory certifications.

Thank you for the opportunity to service the needs of your company.

Please feel free to call me at (562)989-4045 if I can be of further assistance to your company.

Sincerely,

Eddie F. Rodriguez
Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and cannot be reproduced in part or in its entirety without written permission from the client and Advanced Technology Laboratories.

Advanced Technology Laboratories
3275 Walnut Avenue Signal Hill, CA 90755 Tel: 562 989-4045 Fax: 562 989-4040

CLIENT: Geocon Consultants, Inc.
Project: MOKELUMNE BRIDGE, S9200-06-73
Lab Order: 105160

CASE NARRATIVE

Analytical Comments for Method 6010

Dilution was necessary for sample 105160-001A, due to high concentration of target analyte.

RPD for Duplicate (DUP) is outside criteria for sample 105260-001ADUP; however, the Laboratory Control Sample (LCS) validated the analytical batch.

Advanced Technology Laboratories
3275 Walnut Avenue, Signal Hill, CA 90755 Tel: 562. 989.4045 Fax: 562.989.4040

Advanced Technology Laboratories

ANALYTICAL RESULTS

Print Date: *29-Apr-09*

CLIENT:	Geocon Consultants, Inc.	**Client Sample ID:**	P1
Lab Order:	105160	**Collection Date:**	4/21/2009 12:11:00 PM
Project:	MOKELUMNE BRIDGE, S9200-06-73	**Matrix:**	PAINTCHIPS
Lab ID:	105160-001A		

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
ICP METALS						
	EPA 3050B			**EPA 6010B**		
RunID: ICP8_090428E	QC Batch: 55030			PrepDate:	4/28/2009	Analyst: **CL**
Lead	140000	200		mg/Kg	50	4/28/2009 04:56 PM

Qualifiers:				
	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
	S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
	DO	Surrogate Diluted Out		

Advanced Technology Laboratories

3275 Walnut Avenue, Signal Hill, CA 90755 Tel: 562. 989.4045 Fax: 562.989.4040

CLIENT: Geocon Consultants, Inc.
Work Order: 105160
Project: MOKELUMNE BRIDGE, S9200-06-73

ANALYTICAL QC SUMMARY REPORT

TestCode: 6010_S

Sample ID: **MB-55030** SampType: **MBLK** TestCode: **6010_S** Units: **mg/Kg** Prep Date: **4/28/2009** RunNo: **108574**
Client ID: **PBS** Batch ID: **55030** TestNo: **EPA 6010B** **EPA 3050B** Analysis Date: **4/28/2009** SeqNo: **1703895**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	ND	1.0									

Sample ID: **LCS-55030** SampType: **LCS** TestCode: **6010_S** Units: **mg/Kg** Prep Date: **4/28/2009** RunNo: **108574**
Client ID: **LCSS** Batch ID: **55030** TestNo: **EPA 6010B** **EPA 3050B** Analysis Date: **4/28/2009** SeqNo: **1703896**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	50.284	1.0	50.00	0	101	80	120				

Sample ID: **105260-001ADUP** SampType: **DUP** TestCode: **6010_S** Units: **mg/Kg** Prep Date: **4/28/2009** RunNo: **108574**
Client ID: **ZZZZZZ** Batch ID: **55030** TestNo: **EPA 6010B** **EPA 3050B** Analysis Date: **4/28/2009** SeqNo: **1703902**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	4.363	1.0						5.689	26.4	20	R

Sample ID: **105260-001AMS** SampType: **MS** TestCode: **6010_S** Units: **mg/Kg** Prep Date: **4/28/2009** RunNo: **108574**
Client ID: **ZZZZZZ** Batch ID: **55030** TestNo: **EPA 6010B** **EPA 3050B** Analysis Date: **4/28/2009** SeqNo: **1703903**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	112.566	1.0	125.0	5.689	85.5	33	120				

Sample ID: **105260-001AMSD** SampType: **MSD** TestCode: **6010_S** Units: **mg/Kg** Prep Date: **4/28/2009** RunNo: **108574**
Client ID: **ZZZZZZ** Batch ID: **55030** TestNo: **EPA 6010B** **EPA 3050B** Analysis Date: **4/28/2009** SeqNo: **1703904**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	109.852	1.0	125.0	5.689	83.3	33	120	112.6	2.44	20	

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

Advanced Technology Laboratories
3275 Walnut Avenue, Signal Hill, CA 90755 Tel: 562. 989.4045 Fax: 562.989.4040

CHAIN OF CUSTODY RECORD

Advanced Technology Laboratories
3275 Walnut Avenue
Signal Hill, CA 90755
(562) 989-4045 • Fax (562) 989-4040

FOR LABORATORY USE ONLY:

P.O.#:

Logged By: [signature] Date: 4/22/09

Method of Transport: Client ☐ ATL ☐ CA OverN ☐ FEDEX ☐ Other: UPS

Sample Condition Upon Receipt:
1. CHILLED Y☐ N☑
2. HEADSPACE (VOA) Y☐ N☐ NA
3. CONTAINER INTACT Y☑ N☐
4. SEALED Y☐ N☑
5. # OF SPLS MATCH COC Y☑ N☐
6. PRESERVED Y☐ N☑

Client: GEOCON
Attn: D. WATTS
Address: 6671 BRISA St
City: LIVERMORE State: CA Zip Code: 94550
TEL: (925) 371-5900
FAX: (") " 5915

Project Name: MOKELUMNE BRIDGE Project #: 59200-06-73 Sampler: (Printed Name) D WATTS (Signature) [signature]

Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:
[signature]	21APR2009	1530	UPS	21APR2009	1530
			Margo [signature]	4/22/09	10:00

I hereby authorize ATL to perform the work indicated below:
Project Mgr/Submitter: D. WATTS 21APR09
Print Name Date
[signature]
Signature

Send Report To:
Attn:
Co: SEE "CLIENT"
Address
City State Zip

Bill To:
Attn:
Co:
Address
City State Zip

Special Instructions/Comments:
ANTICIPATE SOLUBLE REQUESTS

Sample/Records - Archival & Disposal
Unless otherwise requested by client, all samples will be disposed 45 days after receipt and records will be disposed 1 year after submittal of final report.

Storage Fees (applies when storage is requested):
- Sample : $2.00 / sample / mo (after 45 days)
- Records : $1.00 / ATL workorder / mo (after 1 year)

Circle or Add Analysis(es) Requested

SPECIFY APPROPRIATE MATRIX

ITEM	LAB USE ONLY: Batch #: Lab No.	Sample Description: Sample I.D. / Location	Date	Time	8081A (Pesticides)	8082 (PCB)	8260B (Volatiles)	8270C (BNA)	6010B (Total Metal) Pb	8015B (GRO) / 8020 (BTEX)	8015B (DRO)	8021 (BTEX)	TITLE 22 / CAM 17 (6010 / 7000)	SOIL	WATER	GROUND WATER	WASTEWATER	PAINT CHIPS	TAT	Container(s) #	Container(s) Type	PRESERVATION	QA/QC: RTNE ☐ CT ☒ SWRCB ☐ Logcode ___ OTHER ___ REMARKS
	105160-001	P1	4/21/09	1211					X									X	STD	1	Bg P		SUPER-STRUCTURE

• TAT starts 8 a.m. following day if samples received after 3 p.m.

TAT: A= Overnight ≤ 24 hr B= Emergency Next workday C= Critical 2 Workdays D= Urgent 3 Workdays E= Routine 7 Workdays

Container Types: T=Tube V=VOA L=Liter P=Pint J=Jar B=Tedlar G=Glass P=Plastic M=Metal

Preservatives: H=Hcl N=HNO_3 S=H_2SO_4 C=4°C Z=$Zn(AC)_2$ O=NaOH T=$Na_2S_2O_3$

DISTRIBUTION: **White** with report, **Yellow** to folder, **Pink** to submitter.

May 06, 2009

ELAP No.: 1838
NELAP No.: 02107CA
NEVADA.: CA-401
CSDLAC No.: 10196

Workorder No.: 105160

Dave Watts
Geocon Consultants, Inc.
6671 Brisa Street
Livermore, CA 94550

TEL: (925) 371-5900
FAX: (925) 371-5915

RE: MOKELUMNE BRIDGE, S9200-06-73

Attention: Dave Watts

Enclosed are the results for sample(s) received on April 22, 2009 by Advanced Technology Laboratories . The sample(s) are tested for the parameters as indicated in the enclosed chain of custody in accordance with the applicable laboratory certifications.

This is an addendum report. Please incorporate with documentation previously submitted.

Thank you for the opportunity to service the needs of your company.

Please feel free to call me at (562)989-4045 if I can be of further assistance to your company.

Sincerely,

Eddie F. Rodriguez
Laboratory Director

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Advanced Technology Laboratories
3275 Walnut Avenue Signal Hill, CA 90755 Tel: 562 989-4045 Fax: 562 989-4040

Advanced Technology Laboratories

Date: 5/6/2009

ANALYTICAL RESULTS

LEAD BY ATOMIC ABSORPTION (TCLP)
EPA 1311/ 7420

CLIENT:	Geocon Consultants, Inc.	**Lab Order:**	105160
Project:	MOKELUMNE BRIDGE, S9200-06-73	**Date Received**	4/22/2009 10:00:00 AM
Project No:		**Matrix:**	Paintchips
Analyte:	Lead	**Analyst:**	RQ

Laboratory ID	Client Sample ID	Results	Units	QC Batch	PQL	DF	Date Collected	Date Analyzed
105160-001A	P1	1.8	mg/L	55164	1.2	1	4/21/2009	5/5/2009

Qualifiers:				
	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
	S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
	DO	Surrogate Diluted Out		

Advanced Technology Laboratories

3275 Walnut Avenue, Signal Hill, CA 90755 Tel: 562. 989.4045 Fax: 562.989.4040

CLIENT: Geocon Consultants, Inc.
Work Order: 105160
Project: MOKELUMNE BRIDGE, S9200-06-73

ANALYTICAL QC SUMMARY REPORT

TestCode: 7420_TC

Sample ID: **MB-55164** SampType: **MBLK** TestCode: **7420_TC** Units: **mg/L** Prep Date: **5/5/2009** RunNo: **108750**
Client ID: **PBS** Batch ID: **55164** TestNo: **EPA 1311/ 74 EPA3010A** Analysis Date: **5/5/2009** SeqNo: **1706497**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	ND	0.25									

Sample ID: **LCS-55164** SampType: **LCS** TestCode: **7420_TC** Units: **mg/L** Prep Date: **5/5/2009** RunNo: **108750**
Client ID: **LCSS** Batch ID: **55164** TestNo: **EPA 1311/ 74 EPA3010A** Analysis Date: **5/5/2009** SeqNo: **1706498**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	1.088	0.25	1.000	0	109	80	120				

Sample ID: **LCSD-55164** SampType: **LCSD** TestCode: **7420_TC** Units: **mg/L** Prep Date: **5/5/2009** RunNo: **108750**
Client ID: **LCSS02** Batch ID: **55164** TestNo: **EPA 1311/ 74 EPA3010A** Analysis Date: **5/5/2009** SeqNo: **1706499**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	1.019	0.25	1.000	0	102	80	120	1.088	6.56	20	

Sample ID: **MB-55151 TCLP** SampType: **MBLK** TestCode: **7420_TC** Units: **mg/L** Prep Date: **5/5/2009** RunNo: **108750**
Client ID: **PBS** Batch ID: **55164** TestNo: **EPA 1311/ 74 EPA3010A** Analysis Date: **5/5/2009** SeqNo: **1706500**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	ND	0.25									

Sample ID: **MB-55164-MS** SampType: **MS** TestCode: **7420_TC** Units: **mg/L** Prep Date: **5/5/2009** RunNo: **108750**
Client ID: **ZZZZZZ** Batch ID: **55164** TestNo: **EPA 1311/ 74 EPA3010A** Analysis Date: **5/5/2009** SeqNo: **1706501**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	2.861	0.25	2.500	0	114	70	130				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

Advanced Technology Laboratories
3275 Walnut Avenue, Signal Hill, CA 90755 Tel: 562. 989.4045 Fax: 562.989.4040

CLIENT: Geocon Consultants, Inc.
Work Order: 105160
Project: MOKELUMNE BRIDGE, S9200-06-73

ANALYTICAL QC SUMMARY REPORT

TestCode: 7420_TC

Sample ID: **MB-55164-MSD** SampType: **MSD** TestCode: **7420_TC** Units: **mg/L** Prep Date: **5/5/2009** RunNo: **108750**
Client ID: **ZZZZZZ** Batch ID: **55164** TestNo: **EPA 1311/ 74 EPA3010A** Analysis Date: **5/5/2009** SeqNo: **1706502**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	2.754	0.25	2.500	0	110	70	130	2.861	3.84	20	

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

Advanced Technology Laboratories
3275 Walnut Avenue, Signal Hill, CA 90755 Tel: 562. 989.4045 Fax: 562.989.4040

Diane Galvan

From: David Watts [watts@geoconinc.com]
Sent: Wednesday, April 29, 2009 5:20 PM
To: Diane Galvan
Subject: RE: Results/EDD - MOKELUMNE BRIDGE (105160)

Tclp please…std tat…thanks.

LIMITED ASBESTOS SURVEY

CONTROL ROOM (CEILING CAVITY)
MOKELUMNE RIVER SWING BRIDGE
SAN JOAQUIN COUNTY, CALIFORNIA

PREPARED FOR:
CALIFORNIA DEPARTMENT OF TRANSPORTATION
3402 NORTH BLACKSTONE AVENUE, SUITE 201
FRESNO, CALIFORNIA

PREPARED BY:
GEOCON CONSULTANTS, INC.
6671 BRISA STREET
LIVERMORE, CALIFORNIA

CALTRANS CONTRACT 43A0199
TASK ORDER No. 57
EA No. 10-0C1504
GEOCON PROJECT No. E8415-06-57

DECEMBER 2008

GEOCON
CONSULTANTS, INC.
GEOTECHNICAL ■ ENVIRONMENTAL ■ MATERIALS

Project No. E8415-06-57
December 29, 2008

Mr. Clemens Goewert
California Department of Transportation
3402 North Blackstone Avenue, Suite 201
Fresno, California 93726

Subject: LIMITED ASBESTOS SURVEY REPORT
MOKELUMNE RIVER SWING BRIDGE CONTROL ROOM (CEILING CAVITY)
HIGHWAY 12 (POST MILE 0.001) IN SAN JOAQUIN COUNTY, CALIFORNIA
CONTRACT NO. 43A0199
AUTHORIZATION NO. 10-2007-07, EA NO. 10-0C1504

Dear Mr. Goewert:

In accordance with California Department of Transportation Contract No. 43A0199 and Authorization No. 10-2007-07, we have performed a limited asbestos survey at the project location in San Joaquin County, California. The scope of services included surveying the Mokelumne River Swing Bridge (Bridge 29-0043) control room ceiling cavity at the project location for suspect asbestos-containing materials, collecting bulk samples, and submitting the samples to a laboratory for analyses.

The accompanying report summarizes the services performed and laboratory analysis.

The contents of this report reflect the views of Geocon Consultants, Inc., who are responsible for the facts and accuracy of the data presented herein. The contents do not necessarily reflect the official views or policies of the State of California or the Federal Highway Administration. This report does not constitute a standard, specification, or regulation.

Please contact us if you have questions concerning the contents of this report or if we may be of further service.

Sincerely,

GEOCON CONSULTANTS, INC.

David A. Watts, CAC
Senior Project Scientist

Chris Giuntoli, CAC
Senior Project Scientist

DAW:CGG:lms

(5 + 2 CD) Addressee

6671 Brisa Street ■ Livermore, CA 94550-2505 ■ Telephone (925) 371-5900 ■ Fax (925) 371-5915

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FIGURES
1. Vicinity Map
2. Site Plan

PHOTOGRAPHS (1 through 3)

TABLE
1. Summary of Analytical Laboratory Test Results - Asbestos

APPENDIX
A. Analytical Laboratory Report and Chain-of-Custody Documentation

LIMITED ASBESTOS SURVEY REPORT

1.0 INTRODUCTION

This limited asbestos survey report was prepared by Geocon Consultants, Inc. under Caltrans Contract No. 43A0199 and Authorization No. 10-2007-07.

1.1 Project Description

We performed a limited asbestos survey of the Mokelumne River Swing Bridge (Bridge 29-0043) control room ceiling cavity on Highway 12 (Post Mile 0.001) in San Joaquin County, California. The project location is depicted on the Vicinity Map, Figure 1, and Site Plan, Figure 2.

1.2 General Objectives

The purpose of our scope of services was to determine the presence and quantity of asbestos at the project location prior to renovation activities. Caltrans will use the information obtained from this investigation for waste profiling, determining California Occupational Safety and Health Administration (Cal/OSHA) applicability, and coordinating asbestos disturbance activities.

2.0 BACKGROUND

The *Code of Federal Regulations (CFR),* 40 CFR 61, Subpart M, National Emissions Standards for Hazardous Air Pollutants (NESHAP) and Federal Occupational Safety and Health Administration (FED OSHA) classify asbestos-containing material (ACM) as any material or product that contains *greater than* 1% asbestos. Nonfriable ACM is classified by NESHAP as either Category I or Category II material defined as follows:

- **Category I** – asbestos-containing packings, gaskets, resilient floor coverings, and asphalt roofing products.
- **Category II** – all remaining types of nonfriable asbestos-containing material not included in Category I that when dry, cannot be crumbled, pulverized, or reduced to powder by hand pressure.

Regulated asbestos-containing material (RACM), a hazardous waste when friable, is classified as any manufactured material that contains *greater than* 1% asbestos by dry weight *and* is:

- Friable (can be crumbled, pulverized, or reduced to powder by hand pressure); or
- Category I material that has become friable; or
- Category I material that has been subjected to sanding grinding, cutting or abrading; or
- Category II nonfriable material that has a high probability of becoming crumbled, pulverized, or reduced to a powder during demolition or renovation activities.

Activities that disturb materials containing *any* amount of asbestos are subject to certain requirements of the Cal/OSHA asbestos standard contained in Title 8, CCR Section 1529. Typically, removal or disturbance of more than 100 square feet of material containing more than 0.1% asbestos must be performed by a registered asbestos abatement contractor, but associated waste labeling is not required if the material contains 1% or less asbestos. When the asbestos content of a material exceeds 1%, virtually all requirements of the standard become effective.

Materials containing more than 1% asbestos are also subject to NESHAP regulations (40 CFR Part 61, Subpart M). RACM (friable ACM and nonfriable ACM that will become friable during demolition operations) must be removed from structures prior to demolition. Certain nonfriable ACM and materials containing 1% or less asbestos may remain in structures during demolition; however, there are waste handling/disposal issues and Cal/OSHA work requirements that may make it cost ineffective to do so. Contractors are responsible for segregating and characterizing waste streams prior to disposal.

With respect to potential worker exposure, notification, and registration requirements, Cal/OSHA defines asbestos-containing construction material (ACCM) as construction material that contains more than 0.1% asbestos (Title 8, CCR 341.6).

Caltrans provided Geocon with a survey report by National Analytical Laboratories, Inc. titled *Mokelumne River Bridge House*, dated April 26, 2005, that indicated the presence of ACCM sheetrock systems (0.25% asbestos) in the bridge control room. The report also indicated the presence of paint (used on control room interior and exterior surfaces) with total lead concentrations ranging from 56 milligrams per kilogram (mg/kg) to 273,743 mg/kg.

3.0 SCOPE OF SERVICES

Mr. David Watts, a California-Certified Asbestos Consultant (CAC), certification No. 98-2404 (expiration September 16, 2009), performed the limited asbestos survey at the project location on December 11, 2008.

Suspect ACM were grouped into homogeneous areas with representative samples randomly collected from each. In addition, each potential ACM was evaluated for condition (evidence of deterioration, physical damage, and water damage) and friability. A total of five bulk asbestos samples of suspect building materials (ceiling cavity insulation and flues) were collected.

Our procedures for inspection and sampling are discussed below:

- Collected bulk asbestos samples after first wetting friable material with a light mist of water. The bulk samples were then cut from the substrate and transferred to a labeled container. Note that when multiple samples were collected, the sampling locations were distributed throughout the homogeneous area (spaces where the material was observed).
- Relinquished bulk asbestos samples to EMSL Analytical, Inc., a California-licensed and Caltrans-approved subcontractor, for asbestos analysis in accordance with United States Environmental Protection Agency (EPA) Test Method 600/R-93/116 using polarized light microscopy (PLM) under chain-of-custody protocol. EMSL Analytical, Inc. is a laboratory accredited by the National Institute of Standards and Technology National Voluntary Laboratory Accreditation Program (NIST-NVLAP) for bulk asbestos fiber analysis. The laboratory analyses were requested on a 48-hour turn-around-time.

Sample identification numbers, material descriptions, approximate quantities, friability assessments, and photo references are summarized on Table 1. Approximate sample locations are presented on Figure 2. Materials represented by the samples collected are shown in the attached photographs.

4.0 INVESTIGATIVE RESULTS

No asbestos fibers were observed in samples of suspect materials collected at the project location. A summary of the analytical laboratory test results for asbestos is presented on the attached table.

5.0 RECOMMENDATIONS

Based on our findings, we recommend the following:

5.1 Asbestos

The Cal/OSHA asbestos standard would not apply for activities disturbing suspect materials (control room ceiling cavity insulation and flues) sampled during our survey. In addition, suspect materials sampled during our survey would not be considered a California hazardous waste based on asbestos content.

Based on the findings of the National Analytical Laboratories, Inc. April 26, 2005 report, asbestos-containing sheetrock systems identified in the control room would not require treatment as a hazardous waste. However, the disturbance of the sheetrock systems would still be covered by the Cal/OSHA asbestos standard (Title 8, CCR Section 1529). We recommend that the sheetrock systems be removed and disposed of by a licensed and certified asbestos abatement contractor prior to demolition or other activities that would disturb the material. Contractors are responsible for informing the landfill of the contractor's intent to dispose of asbestos-containing waste. Some landfills may require additional waste characterization. Contractors are responsible for segregating and characterizing waste streams prior to disposal.

We also recommend the notification of contractors (that will be conducting demolition, renovation, or related activities) and bridge house employees of the presence of asbestos in their work areas (i.e., provide the bridge house employees and contractor[s] with a copy of this and previous reports, and a list of asbestos removed during subsequent activities). Contractors and bridge house employees should be instructed not to disturb asbestos during their work.

In accordance with the San Joaquin Valley Unified Air Pollution Control District, Rule 4002, written notification is required ten working days prior to commencement of *any* demolition activity (whether asbestos is present or not) and for certain renovation activities. In accordance with Title 8, CCR 341.9, written notification to the nearest Cal/OSHA district office is required at least 24 hours prior to certain asbestos-related work.

5.2 Lead Paint

We recommend that paints at the project location be treated as lead-containing for purposes of determining the applicability of the Cal/OSHA lead standard during any future maintenance, renovation, and demolition activities. This recommendation is based on the results of previous sampling and the fact that lead was a common ingredient of paints manufactured before 1978 and is still an ingredient of some industrial paints. Construction activities (including demolition) that disturb materials containing *any* amount of lead are subject to certain requirements of the Cal/OSHA lead

standard contained in Title 8, CCR Section 1532.1. We recommend the use of personnel who have lead-related construction certification as supervisors or workers, as appropriate, from the California DPH for personnel performing “trigger tasks” as defined in Title 8 CCR Section 1532.1(d). Common trigger tasks include manual scraping or sanding, heat gun applications, power tool cleaning, spray painting with lead paint, abrasive blasting, welding, cutting, grinding, and torch burning. Contractors should consult the Cal/OSHA lead standard for additional guidance.

Contractors are responsible for informing the landfill of the contractor’s intent to dispose of Federal and/or California hazardous waste, or architectural components containing intact LCP. Some landfills may require additional waste characterization. Contractors are responsible for segregating and characterizing waste streams prior to disposal.

In accordance with Title 8, CCR, Section 1532.1(p), written notification to the nearest Cal/OSHA district office is required at least 24 hours prior to certain lead-related work.

6.0 REPORT LIMITATIONS

This limited asbestos survey was conducted in conformance with generally accepted standards of practice for identifying and evaluating asbestos in structures. The survey addressed only the structure identified in Section 1.1. Due to the nature of structure surveys, asbestos use, and laboratory analytical limitations, some asbestos at the project location may not have been identified. Spaces such as cavities, voids, crawlspaces, and pipe chases, may have been concealed to our investigator. Previous renovation work may have concealed or covered spaces or materials, or may have partially demolished materials and left debris in inaccessible areas. Additionally, renovation activities may have partially replaced ACM with indistinguishable non-ACM. Asbestos may exist in areas of the structure that were not accessible or sampled in conjunction with our scope of services.

During renovation or demolition operations, suspect materials may be uncovered which are different from those accessible for sampling during this assessment. Personnel in charge of renovation/demolition should be alerted to note materials uncovered during such activities that differ substantially from those included in this or previous assessment reports. If additional suspect materials are found, sampling and analysis should be performed to determine if the materials contain asbestos.

This report has been prepared exclusively for Caltrans. The information contained herein is only valid as of the date of the report, and will require an update to reflect additional information obtained.

This report is not a comprehensive site characterization and should not be construed as such. The findings as presented in this report are predicated on the results of the limited sampling and laboratory testing performed. In addition, the information obtained is not intended to address potential impacts related to sources other than those specified herein. Therefore, the report should be deemed conclusive with respect to only the information obtained. We make no warranty, express or implied, with respect to the content of this report or any subsequent reports, correspondence or consultation. Geocon strived to perform the services summarized herein in accordance with the local standard of care in the geographic region at the time the services were rendered.

The contents of this report reflect the views of the author who is responsible for the facts and accuracy of the data presented herein. The contents do not necessarily reflect the official views or policies of the State of California or the Federal Highway Administration. This report does not constitute a standard, specification, or regulation.

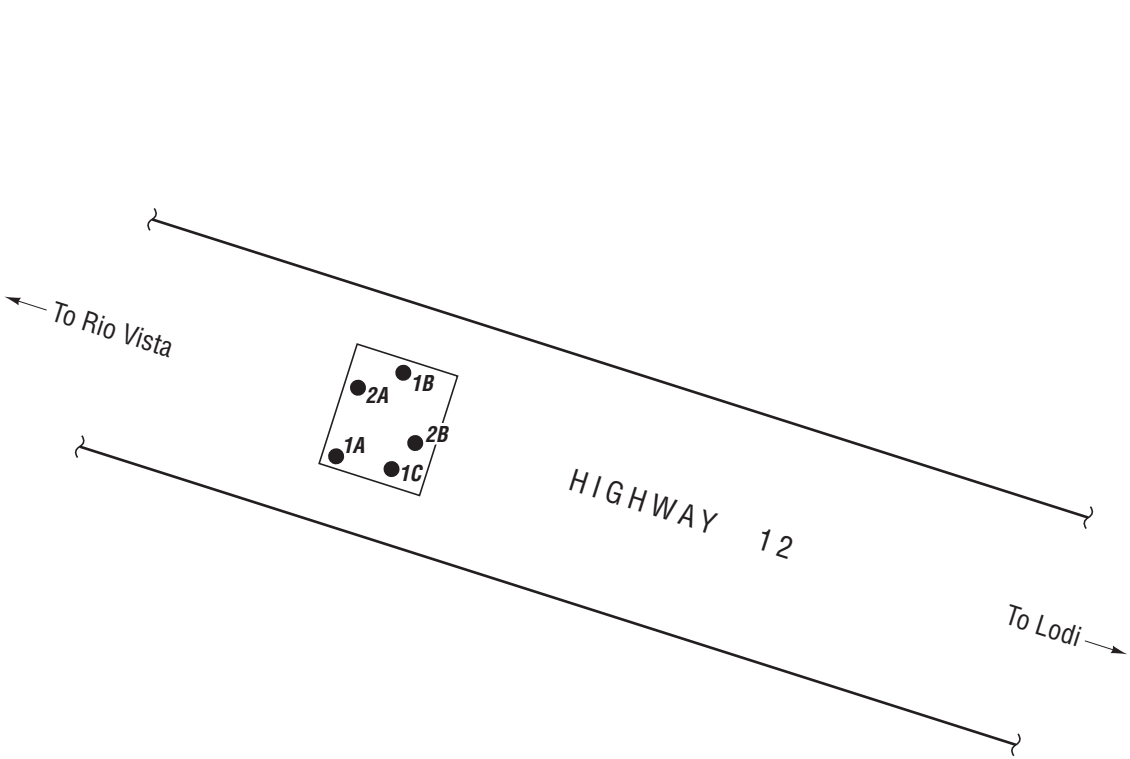
GEOCON
CONSULTANTS INC.
6671 BRISA STREET, LIVERMORE, CALIFORNIA, 94550
PHONE 925 371-5900 - FAX 925 371-5915

VICINITY MAP

Mokelumne River Bridge Control Room
Highway 12, San Joaquin County, California

GEOCON Proj. No. E8415-06-57	December 2008	Figure 1

SITE1208



LEGEND:

- Approximate Asbestos Sample Location

NOT TO SCALE

GEOCON
CONSULTANTS, INC.
3160 GOLD VALLEY DR. – SUITE 800 - RANCHO CORDOVA, CA. 95742
PHONE 916 852-9118 – FAX 916 852-9132

Mokelumne River Bridge Control Room		
Highway 12 San Joaquin County, California	**SITE PLAN**	
GEOCON Proj. No. E8415-06-57		
Task Order No. 57	December 2008	Figure 2

Photo 1 – Bridge control room

Photo 2 – Bridge control room ceiling cavity access

Photo 3 – Bridge control room ceiling cavity

GEOCON
CONSULTANTS, INC.

6671 Brisa Street
Livermore, CA 94550
TEL 925 371-5900 – FAX 925 371-5915

PHOTOGRAPHS 1, 2, & 3		
Mokelumne River Swing Bridge Control Room (Ceiling Cavity) San Joaquin County, California		
E8415-06-57		December 2008

TABLE 1
SUMMARY OF ANALYTICAL LABORATORY TEST RESULTS - ASBESTOS
MOKELUMNE RIVER SWING BRIDGE CONTROL ROOM (CEILING CAVITY)
HIGHWAY 12 IN SAN JOAQUIN COUNTY, CALIFORNIA

Polarized Light Microscopy (PLM) - EPA Test Method 600/R-93/116

Sample ID	Description of Suspect Material	Approximate Quantity	Friable	Site Photo	Asbestos Content
1A					ND
1B	Ceiling cavity insulation	NA	NA	3	ND
1C					ND
2A	Flues	NA	NA	3	ND
2B					ND

Notes:

NA = Not applicable

ND = No asbestos fibers detected

APPENDIX A

EMSL Analytical, Inc
2235 Polvorosa Ave , Suite 230, San Leandro, CA 94577
Phone: (510) 895-3675 Fax: (510) 895-3680 Email: milpitaslab@emsl.com

Attn: **David Watts**
Geocon Consultants
6671 Brisa Street
Livermore, CA 94550

Fax: (925) 371-5915 Phone: (925) 371-5900
Project: **E8415-06-57, Mokelumne River BR.**

Customer ID:	GECN21
Customer PO:	E8415-06-57
Received:	12/12/08 9:45 AM
EMSL Order:	090809629
EMSL Proj:	E8415-06-**
Analysis Date:	12/14/2008
Report Date:	12/15/2008

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

			Non-Asbestos				Asbestos
Sample	**Location**	**Appearance**	**%**	**Fibrous**	**%**	**Non-Fibrous**	**% Type**
1A, Ceiling *090809629-0001*	Cavity Ins.	Brown Fibrous Homogeneous	10% 80%	Cellulose Min. Wool	10%	Non-fibrous (other)	**None Detected**
1B, Ceiling *090809629-0002*	Cavity Ins.	Brown Fibrous Homogeneous	10% 80%	Cellulose Min. Wool	10%	Non-fibrous (other)	**None Detected**
1C, Ceiling *090809629-0003*	Cavity Ins.	Brown Fibrous Homogeneous	10% 80%	Cellulose Min. Wool	10%	Non-fibrous (other)	**None Detected**
2A, Flue *090809629-0004*		Brown Non-Fibrous Homogeneous			100%	Non-fibrous (other)	**None Detected**
2B, Flue *090809629-0005*		Brown Non-Fibrous Homogeneous			100%	Non-fibrous (other)	**None Detected**

Analyst(s)

Alan Tahran (5)

Baojia Ke, Laboratory Manager
or other approved signatory

Due to magnification limitations inherent in PLM, asbestos fibers in dimensions below the resolution capability of PLM may not be detected. Samples reported as <1% or none detected may require additional testing by TEM to confirm asbestos quantities. The above test report relates only to the items tested and may not be reproduced in any form without the express written approval of EMSL Analytical, Inc. EMSL's liability is limited to the cost of analysis. EMSL bears no responsibility for sample collection activities or analytical method limitations. Interpretation and use of test results are the responsibility of the client.Samples received in good condition unless otherwise noted.
NVLAP Lab Code 101048-3

THIS IS THE LAST PAGE OF THE REPORT.

090809629

EMSL ANALYTICAL, INC.

EMSL – San Leandro ◆ 2235 Polvorosa Ave, Suite 230, San Leandro, CA 94577

(888) 455-3675 ◆ Phone (510) 895-3675 ◆ Fax (510) 895-3680 ◆ sanleandrolab@emsl.com

EMSL Rep: D. Kocher
Company: GEOCON
Contact: D. WATTS
Address: 6671 BRISA St.
City & State: LIVERMORE CA Zip 94550
Phone: 925-371-5900
☒ Email Results D. WATTS
Project Name or Number: E8415-06-57 (MOKELUMNE RIVER BR.)

Third Party Billing — *requires written authorization from third party*
EMSL-Bill to:
Contact:
Address:
City & State: Zip
Fax:
☐ Fax results
Purchase Order Number:

TURNAROUND TIME

☐ 3 Hours	☐ 6 Hours	☐ 24 Hours	☒ 48 Hours	☐ 72 Hours	☐ 5 Days	☐ 10 Days

SAMPLE MATRIX

☐ Air	☒ Bulk	☐ Soil	☐ Wipe	☐ Micro-Vac	☐ Drinking Water	☐ Wastewater	☐ Chips	☐ Other

ASBESTOS ANALYSIS

PCM - Air
☐ NIOSH 7400 (A) Issue 2: August 1994
☐ OSHA w/ Time Weighted Average

TEM AIR
☐ AHERA 40 CFR, Part 763 Subpart E
☐ NIOSH 7402 Issue 2
☐ EPA Level II

PLM - Bulk
☒ EPA 600/R-93/116
☐ + Add Gravimetric Reduction (EPA NOB)
PLM CARB 435 Level: ☐ A (0.25%) ☐ B (0.1%)
☐ NIOSH 9002
☐ EPA Point Count (400 Points)
☐ + Add Gravimetric Reduction (EPA NOB)
☐ EPA Point Count (1,000 Points)
☐ + Add Gravimetric Reduction (EPA NOB)
☐ Standard Addition Point Count

SOILS
PLM CARB 435 Level: ☐ A (0.25%) ☐ B (0.1%)
TEM CARB 435 Level: ☐ B (0.1%) ☐ C (0.01%) ☐ D (0.001%) ☐ E (0.0005%) ☐ F (0.0001%)
☐ EMSL MSD 9000 Method fibers/gram
☐ Superfund EPA 540-R097-028 (dust generation)
EPA Protocol ☐ Qualitative ☐ Quantitative

TEM BULK
☐ TEM EPA NOB, EPA 600/R-93/116 Section 2.5.5.1 (TEM % by VAE)
☐ Chatfield SOP-1988-02
☐ TEM EPA 600/R-93/116 Section 2.5.5.2 (TEM % by Mass)

TEM MICROVAC
☐ ASTM D 5755 (Quantitative)

TEM WIPE
☐ ASTM D-6480 (Quantitative)

TEM WATER
☐ EPA 100.2 (≥ 10 microns)
☐ Modified EPA 100.2 (≥ 0.5 microns)
OTHER:

LEAD ANALYSIS

Flame Atomic Absorption
☐ Wipe, SW846-7420 ☐ ASTM ☐ non ASTM
☐ Soil, SW846-7420
☐ Air, NIOSH 7082
☐ Chips, SW846-7420 or AOAC 5.009 (974.02)
☐ Wastewater, SW 846-7420

☐ TCLP LEAD SW846-1311/7420

Graphite Furnace Atomic Absorption
☐ Air, NIOSH 7105
☐ Wastewater, SW846-7421
☐ Soil, SW846-7421
☐ Drinking Water, EPA 239.2

ICP – Inductively Coupled Plasma
☐ Wipe, SW846-6010 ☐ ASTM ☐ non ASTM
☐ Soil, SW846-6010
☐ Air, NIOSH 7300

MATERIALS ANALYSIS

☐ Particle Identification
☐ Full Particle Identification
☐ Dust Mites and Insect Fragments
☐ Particle Size & Distribution
☐ Product Comparison
☐ Paint Characterization
☐ Failure Analysis
☐ Corrosion Analysis
☐ Glove Box Containment Study
☐ Petrographic Examination of Concrete
☐ Portland Cement in Workplace Atmospheres (OSHA ID-143)
☐ Man Made Vitrous Fibers – MMVF's
☐ Synthetic Fiber Identification
☐ Other:

MICROBIAL ANALYSIS

Air Samples
☐ Mold & Fungi by Air O Cell
☐ Mold & Fungi by Agar Plate count & id
☐ Bacterial Count and Gram Stain
☐ Bacterial Count and Identification

Water Samples
☐ Total Coliforms, Fecal Coliforms
☐ Escherichia Coli, Fecal Streptococcus
☐ Legionella
☐ Salmonella
☐ Giardia and Cryptosporidium

Wipe and Bulk Samples
☐ Mold & Fungi – Direct Examination
☐ Mold & Fungi – (Culture follow up to direct examination if necessary)
☐ Mold & Fungi – Culture (Count & ID)
☐ Mold & Fungi – Culture (Count only)
☐ Bacterial Count & Gram Stain
☐ Bacterial Count & Identification (3 most prominent types)
☐ Other:

IAQ ANALYSIS

☐ Nuisance Dust (NIOSH 0500 & 0600)
☐ Airborne Dust (PM10, TSP)
☐ Silica Analysis by XRD ☐ NIOSH 7500
☐ HVAC Efficiency
☐ Carbon Black
☐ Airborne Oil Mist
☐ Other:

Relinquished:	[illegible]	Date:	11 DEC 2008	Time:	1600
Received:	UPS	Date:	11 DEC 2008	Time:	1600
Relinquished:		Date:		Time:	
Received:	M. Edwards	Date:	12/12/08	Time:	9:45 AM

090809629

EMSL ANALYTICAL, INC.

EMSL – San Leandro ◆ 2235 Polvorosa Ave, Suite 230, San Leandro, CA 94577

	SAMPLE NUMBER	SAMPLE DESCRIPTION	LOCATION	VOLUME Air (L) Area (Inches sq.)
1	1A	CEILING CAVITY INS.	NA	NA
2	1B	" " "		
3	1C	" " "		
4	2A	FLUE		
5	2B	"		
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				

Client Sample # (S) _____ - _____ TOTAL SAMPLE # 5

Relinquished: _____ Date: _____ Time: _____
Received: _____ Date: _____ Time: _____
Relinquished: _____ Date: _____ Time: _____
Received: _____ Date: _____ Time: _____

Asbestos, Lead & Mold
Building Inspection
Report For:

Mokelumne River Bridge House

Highway 12
San Joaquin County

Presented To:

Margaret Lawrence,
Environmental Planner

Department of Transportation
Environmental MPS Branch
1976 E. Street
Stockton, California 95201

By:

Anthony M. De Arcos
Certified Asbestos Consultant

National Analytical Laboratories, Inc.
11622 Fair Oaks Blvd. Suite 111
Fair Oaks, California 95628
(916) 965-0555 Fax: (916) 965-0549
E-Mail: NAL1@NAL1.com Web Page: www.NAL1.com

National Analytical Laboratories, Inc.

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Fair Oaks, CA 95628
T – 916-965-0555
F – 916-965-0549
E-Mail – nal1@nal1.com

April 11, 2005
Revised April 26, 2005

Margaret Lawrence, Environmental Planner
Environmental MPS Branch
Department of Transportation
1976 E. Street
Stockton, California 95201

RE: Asbestos, Lead & Mold Site Inspection – Mokelumne River Bridge House

Dear Ms. Lawrence,

This report is in regards to the asbestos, lead and mold site investigation conducted at the Mokelumne River Bridge House, Highway 12, San Joaquin County. Of the four (4) suspected asbestos containing samples collected one (1) was found to contain asbestos containing construction materials (ACCM). The Sheetrock-Joint Compound sample, collected from the site was found to contain a Trace, <1% amount of Chrysotile asbestos and the item will be tested utilizing the Point Count Method to determine if the amount of ACCM is less than or greater than 1%. NAL has instructed KSL to re-analyze the samples utilizing the Point Count Method. Of the seven (7) suspected lead containing samples collected, all were found to be contain Lead Containing Material (LCM). The Tape Lift sampling was conducted, in order to determine the presence of mold at the site, specifically, the Northeast Storage Room, North wall below the Window sill. Based on the result of the Tape Lift sample there is mold present in this area.

Anthony M. De Arcos, Certified Asbestos Consultant (CAC), Certified Lead Building Inspector/Assessor and Registered Environmental Assessor (REA) for NAL, conducted the site investigation. The following is a report of our findings.

Margaret Lawrence, of the Department of Transportation, retained National Analytical Laboratories, Inc. (NAL) to collect suspect asbestos and lead containing samples from the site. The building inspection was completed on April 7, 2005 in preparation for the renovation of the building. During the site investigation the following suspect ACCM samples were collected; Sheetrock-Joint Compound, 8" Flue Vent Pipe and Window Glazing Compound. The building inspection was conducted according to the EPA's Asbestos Containing Building Materials (ACBM). In-Schools Rule; 40 CFR 763.85 (Inspection and Re-Inspection). Currently, EPA regulations classify ACBM as materials containing more that 1-percent (1%) of asbestos. Cal-OSHA currently regulates asbestos to 1/10th of 1% (0.1%) and requires that a certified asbestos worker conduct this work.

The sheetrock-joint compound was found to contain ACCM. Based on the result of the sample the material shall be removed prior to the renovation/demolition work being completed at the site.

The lead suspect samples were collected according to HUD Guidelines, the Environmental Protection Agency (EPA) and Department of Health Services (DHS) who regulate and require the abatement or in-place management of LCM hazards equal to or greater than 1.0 milligram per square centimeter (1.0 mg/cm^2) of lead or more than 0.5% by weight. Because OSHA considers all surfaces to contain lead, this regulation, OSHA's 29 CFR 1926.62, California Occupational Safety and Health Standard, Title 8 (Cal/OSHA 8 CCR 1532.1) shall be adhered to. Suspect LCM samples were collected from the following surfaces: Suspect LCM samples were collected from the following surfaces: Metal, Wood and Concrete.

All the painted surfaces were found to contain LCM. Based on the results of the samples the materials shall be abated, have in-place management and/or paint stabilization conducted on the above items by a certified lead worker.

KSL Environmental Laboratories, located in Jackson, California analyzed the suspect asbestos and lead bulk samples utilizing the Polarized Light Microscopy (PLM) and SW-846-7420 Methods. National Voluntary Laboratory Accreditation Program certifies KSL Laboratories, Inc. MicroTest™ Laboratory, Inc. located in Fair Oaks, California analyzed the tape lift for Stachybotrys screening and fungi identification.

SECTION I – Asbestos Building Inspection

Federal and state regulations require that anyone disturbing asbestos containing materials be properly trained and have the required respiratory protection and medical surveillance.

Although not all the materials were sampled, the like materials that were tested and their results will be treated as homogeneous and the materials will be treated as containing ACCM at the site.

The location and results of the sampling found to contain ACCM are as follows:

Sample ID#	Material	Location	Results
MBH-1	Sheetrock-Joint Compound (~1,200 sf)	Mokelumne River Bridge House, Various Areas	Trace <1% Chrysotile

The sheetrock-joint compound was found to contain a trace (<1%) amount of ACCM and because the regulatory requirements by the National Emission Standards for Hazardous Air Pollutants (NESHAP), Regulation 40 CFR, Part 61, Subpart M, states that the following must occur "If the asbestos content is less than 10 percent, verification shall be made using the point counting method specified in Appendix A, Subpart F, 40 CFR Part 763, Section 1.7.2.4, Polarized Light Microscopy, Qualification of Asbestos Content" the composite samples were Point Counted.

The Point Count criteria, taken from the Environmental Protection Agencies (EPA-600/MA-82-020 December 1982), Test Method, Interim Method for the Determination of Asbestos in Bulk Insulation Samples. The information was taken from Section 1, Polarized Light Microscopy (PLM), Sub-section 1.7.2.4 Quanitation of Asbestos Content.

The results of the Point Count tests are as follows:

Sample #	Description/Location	Percent Asbestos
MBH-1PC	Sheetrock-Joint Compound, Mokelumne River Bridge House, Various Areas	.25%

The sample was point counted by KSL Laboratories, Inc. in Jackson, California. The National Voluntary Laboratory Accreditation Program (NVLAP #200442-0) certifies KSL Laboratories, Inc.

Although, neither the EPA or the San Joaquin Valley Air Pollution Control District (SJVAPCD) regulate materials at the <1% level, it does fall under the jurisdiction of OSHA, in regards to worker protection. A certified asbestos contractor shall complete any renovation/demolition work completed at the site.

Once the removal work is completed the abatement contractor shall dispose of the debris from the site utilizing following protocol:

- Waste bin, dump truck or high side trailer will have "Asbestos Hazard" signs posted around the perimeter;
- Upon the completion of the loading of the debris the Waste bin, dump truck or high side trailer will be covered with a tarp;
- The signs will be removed; and
- The debris will be disposed of as general construction material at a non-regulated waste facility.

RECOMMENDATION:

NAL recommends that a certified asbestos abatement contractor be retained to remove the Trace amount materials prior to any renovation/demolition work being completed the site. On-site observation conducted by an NAL's, CAC or SST, should be completed to verify that the specification is being followed and to confirm that during the abatement work no asbestos airborne fibers have migrated to the outside of the work area(s).

Upon completion of the abatement work, air clearance sampling should be completed in order for the general contractor to reoccupy the work area(s) without concern for exposure to asbestos airborne fibers to their employees. Once a certified asbestos contractor has removed the ACCM, following EPA and OSHA requirements and air clearance sampling has been completed and cleared, the renovation or demolition work can be completed by the general contractor.

The following samples were found to be non-asbestos containing material:

Sample ID#	Material	Location	Results
MBH-2	8" Flue Vent Pipe	Mokelumne River Bridge House, Attic Area	None Detected
MBH-3	Glazing Compound	Mokelumne River Bridge House, Exterior, South Window	None Detected
MBH-4	Glazing Compound	Mokelumne River Bridge House, Exterior Northwest Window	None Detected

RECOMMENDATION:

NAL recommends that a certified asbestos abatement contractor be retained to remove the Trace amount materials prior to any renovation/demolition work being completed the site. On-site observation conducted by an NAL's, CAC or SST, should be completed to verify that the specification is being followed and to confirm that during the abatement work no asbestos airborne fibers have migrated to the outside of the work area(s).
Upon completion of the abatement work, air clearance sampling should be completed in order for the general contractor to reoccupy the work area(s) without concern for exposure to asbestos airborne fibers to their employees. Once a certified asbestos contractor has removed the ACCM, following EPA and OSHA requirements and air clearance sampling has been completed and cleared, the renovation or demolition work can be completed by the general contractor.

SECTION II – Lead building Inspection

Since the laboratory results are reported by weight percent, during the collection of the suspect LCM samples the paint must be removed down to, but not including, the bare substrate (wood, metal, etc.). Inclusion of the any amount of the substrate material in the paint sample will dilute the sample result(s).

Once the determination is made on where the LCM is located, the In-place Management or the Abatement of the LCM can commence. If the In-Place Management method is to be used, prior to the repainting of the effected surface areas, the loose flaky paint must be removed until the remaining paint adheres smoothly to the substrate. Once this task is completed, the surface area can be repainted without the possibility of paint being dislodged and falling to the floor or ground areas. If the Abatement of all surfaces is to be completed then the debris and any loose flaky paint must be bagged or burrito wrapped prior to the removal of the debris from the work area(s) and subsequently the site. Because the paint samples listed below were found to contain LCM, all areas where the Lead Containing Material will be disturbed will require abatement, encapsulation, and/or prep work by a certified lead worker.

Although not all the materials were sampled, the like materials that were tested and their results will be treated as homogeneous and the materials will be treated as containing LCM at the site.

The location and results of the suspect samples found to be Lead Containing Material are as follows:

Sample ID#	**Material**	**Location**	**Paint Condition**	**Lead Concentration mg/kg (ppm)**	**Weight by %**
MBH-1L	White Paint	Interior, East Wall, Baseboard/Window Components	Good-Fair	18,197	1.820%
MBH-2L	Tan-Green Paint	Interior, East Wall	Fair	56	0.006%
MBH-3L	Gray Paint	Interior, North Concrete Floor	Good	621	0.062%
MBH-4L	White-Blue-Tan Paint	Interior, Northwest Storage Room, West Wall	Fair-Poor	268	0.027%
MBH-5L	Orange Paint	Interior, Attic Area, Metal Truss	Good-Fair	273,743	27.374%
MBH-6L	Green-Orange	Exterior, Metal Siding, Various Areas	Fair-Poor	59,307	5.931%

Sample ID#	Material	Location	Paint Condition	Lead Concentration mg/kg (ppm)	Weight by %
MBH-7L	White Paint	Exterior, East Side, Bottom Window Sill	Poor	697	0.070%

The location and results of the *retested* suspect sample found to be Lead Containing Material is as follows:

Sample ID#	Material	Location	Paint Condition	Lead Concentration mg/kg (ppm)	Weight by %
MBH-SCH 4L	White-Blue-Tan Paint	Interior, Northwest Storage Room, West Wall	Fair-Poor	225.2	0.041%

Once the renovation/demolition work is completed the Health and Safety Code 25157.8 (AB 2784 National Resources) requires that all lead debris will be sampled for Waste Characterization. This will assist the Contractor in making a determination of whether or not the material is to be considered Hazardous or Non-Hazardous Lead waste or general construction debris. The sequence of testing to be completed by the Contractor is as follows:

- Total Threshold Limit concentration (TTLC) with a result of 50 mg/kg or more of lead must be retested using Soluble Threshold Limit concentration (STLC) method;
- A STLC result of 5.0 mg/l or more must be retested using Total Characteristic Leaching Procedure (TCLP);
- A TCLP result of 5.0 mg/l or more deems the waste as RCRA;
- A TCLP result of <5mg/l is categorized as State Hazardous Waste (Class 1); and
- All waste with total lead greater than 350 ppm (mg/kg); but less than 1,000 ppm (mg/kg) disposed of in California, must be disposed of at a Class 1 Hazardous waste landfill, or at other landfills that have specific permits as non-hazardous waste unless the waste has been deemed hazardous for another reason.

The California hazardous waste threshold for total lead is 1,000 ppm and the soluble threshold concentration (STLC) for lead is 5ppm. A TCLP test shall be completed on the waste to determine if it is lead hazardous waste or lead waste that must be sent to a certified waste facility or general construction waste facility.

RECOMMENDATION:

NAL recommends that the overall surface areas at the site have in place management and/or prep work conducted by Lead Certified Workers, where needed, to help stabilize the current painted surfaces. Once the in-place management and/or prep work is completed and the areas are re-painted the existing surfaces will be in good condition and not create a health or safety concern to the workers conducting the general construction work at the site. In areas where materials are to be removed (i.e. paneling, windows, door jambs, doors, etc.) this work shall be conducted by lead certified workers.

SECTION III– Mold Investigation

During the inspection conducted at the site water damage and staining was discovered in the Northeast Storage Room, North wall below the Windowsill. Upon the completion of the visual inspection, a tape lift sample was collected from the affected area at the site. The tape lift sample was collected from the structure utilizing the following criteria:

- The Tape Lift sample was collected by touching a piece of clear celluloid tape to a specific surface, thus capturing a sample of spores in settled dust or actual mold growth. The Tape Lift sample was collected from the above listed area at the site. The sample was placed into new double plastic Ziplock bags for shipment to the laboratory. Typically, mold growth in a dwelling indicates an excess moisture condition.

The tape lift sample was found to have problematic mold spores. The sample collected from the Northeast Storage Room, North wall was found to contain 1+ Alternaria sp., Rare Cladosporium sp., Rare Penicillium/Aspergillus sp. and 3+ Ulocladium sp.

RECOMMENDATION

Based on the sample result there is a minor mold problem associated with the previous water intrusion that has occurred at the site. During the investigation of the site visible signs of mold growth are present in the areas where the water had migrated into the affected area. The molds present at the site are consistent with excessive water damage to cellulose products such that occurred at the site. NAL recommends that a remediation and cleaning in the wall cavity be completed in the storage room during the scheduled renovation work slated for the site. As a preventative maintenance the area should be sprayed with a Kilz Primer paint to assist in the encapsulation of the affected area at this time. NAL advises that the mold remediation procedures be conducted in a timely manner to assist in keeping the mold contamination in the structure to its present state.

Because asbestos, lead and mold were found to be present at the site, a certified asbestos, and lead contractor must complete the removal of the ACCM and LCM in conjunction with the mold remediation work required at the site.

If should have any questions regarding this report or if I can be of further assistance, please contact me at my office.

Sincerely,

Anthony M. De Arcos

CERTIFIED ASBESTOS CONSULTANT
ANTHONY M. DE ARCOS
No. 92-0261
Exp. 080605
STATE OF CALIFORNIA

Registered Environmental Assessor I
ANTHONY DE ARCOS
REA I-07904
Expires: 063005
STATE OF CALIFORNIA

Anthony M. De Arcos
Certified Lead Building Inspector/Assessor
& Project Monitor
DHS #2406

National Analytical Laboratories, Inc.

Login #: 24236

Cal Trans Shop 4
P.O. Box 2048
Stockton, CA 95201
Phone # (209) 942-6025
Fax #: (209) 608-8863

Attention: Margaret Lawrence
Email:

Job Site:
Mokelumnee River Bridge House
Hwy 12
Stockton, California

Job Number
MBH-040605

Date Samples Taken: 4/6/2005
Date Report Submitted: 4/26/2005
NAL ID # / Lot #: 3662 / 5
Lab Tracking #: 33730
Total Samples: 1

LEAD BULK BUILDING INSPECTION

Samples ID #	Material	Location	Results uG/M3
Sample ID #: MBH-1L **NAL ID:** 3662-5-1	White-Blue-Tan Paint	Northwest Storage Wall	0.041

KEY: *Samples above the California OSHA Threshold Level of 0.06% or 600 ppm's are considered hazardous.

Reviewed by: [signature]

KSL Environmental Laboratories in Jackson, California using the NIOSH 7082 Method analyzed the suspect air samples.

Referred By:
Login Number: 24786
O N O E

Name Margaret Lawrence
Company Caltrans
Address P.O. Box 2048
Stockton, CA 95201

Phone: 209-942-6025
Fax: 209-608-8863
E-Mail:

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National Analytical Laboratories, Inc.

11622 Fair Oaks Blvd, Ste. 111
Fair Oaks, CA 95628
(916) 965-0555 Fax (916) 965-0549

Office Only: O PAID Chk#_____ Credit:_____
O BILL
O VERBAL Date_____ Time_____ Initials_____

Collected By Anthony De Arcos
Job Site Mokelumne River Bridge House Hwy 12
Job Number MBH-040605
# of Samples 1
Contact Margaret Lawrence

TYPE OF WORK	PCM/TEM	PLM	LEAD	MOLD	OTHER
● Laboratory Work	O PCM O TEM	O Rush	O Air ● Bulk	O Tape Lift	O Water
O Consulting	O Clearances		● Rush	O Bulk	O 24 Hrs
	O Rush		O Clearance Wipes	O Air	O 2-5 days
	O Clearances			O Rush	O 3-10 days
				O 3 Days	

Fibers/ CC	Sample Date	Sample Number	Time On	Time Off	Total Minutes	Liters Per Minute On	Liters Per Minute Off	Liters Per Minute Aver	Total Volume	Area/ Personal	Location/Description
	4/6	MBH - 1L									NW Storage Wall / White - Blue - tan Paint

Special Instructions

Chain of Custody

Relinquished By:	Date/Time	Received By:	Date/Time	Relinquished By:	Date/Time	Received By:	Date/Time
Anthony M. DeArcos	8:15 4-7-05	Jena Nelson	4-7-05 8:30				

TYPICAL CONDITIONS IMPOSED BY THE COAST GUARD DURING BRIDGE PROJECTS
(This is not an approval to perform work)

The Coast Guard (USCG), Bridge Office must be provided with the contractors proposed method of construction, via the bridge owner, at least 30 days prior to beginning to allow proper review and coordination prior to official Coast Guard approval. Once approved, we will provide appropriate notices to the mariners concerning work schedules and location of equipment.

a. The work shall be performed such that waterway traffic and navigational clearances are not affected and the navigable depths are not impaired.

b. All flame-producing, spark-producing, welding or other hazardous operations shall be halted while vessels are passing through the bridge.

c. Nothing may interfere with proper display of required bridge navigational lighting or other navigational signals and bridge markings.

d. If temporary obstructions to navigation such as containment or floating equipment become necessary, the proposal for such obstruction shall be provided to the Eleventh Coast Guard District Bridge Office at least 30 days in advance for review and approval.

e. Floating equipment located in the channel shall move when requested for safe passage of waterway traffic. A good quality marine radio shall be present at the jobsite and properly employed to facilitate reliable communications between the contractor and approaching waterway traffic. The marine radio installed on the bridge, work tug or safety boat is considered adequate for this purpose.

f. Floating equipment shall not be located in the channel unless actively engaged in working on the bridge. When not working, floating equipment shall be located in approved anchorages or mooring areas outside the navigation channel.

g. The bridge owner must provide anchor plans for USCG review and approval.

h. Moored or stationary obstructions, including scaffolding, barges, falsework, etc., shall be lighted at night with steady burning red lights, visible at 2,000 yards from approaching vessels. The USCG Bridge Office will provide details of location and color of lighting when the contractors' proposal is reviewed.

i. Proposals to close the waterway will require USCG Captain of the Port authorization. At least 30 days advance notice is required to allow proper review and approval with the USCG Captain of the Port and waterway users.

j. Nothing may fall from the bridge or be deposited into the water. If anything is accidentally dropped into the water, immediate action shall be taken to remove it, and the waterway shall be cleared to the satisfaction of the Corps of Engineers.

k. The Federal Water Pollution Control Act prohibits the discharge of oil, including oil based paints, into the navigable waters of the United States. In the event of discharge the responsible party shall immediately take action to halt the discharge and notify the National Response Center, U.S. Coast Guard by calling (800) 424-8802. Failure to report such discharge may result in substantial fines, imprisonment or both. The responsible party will be responsible for clean up costs, if any.

l. The bridge owner must establish and maintain an adequate communications plan with the designated USCG Vessel Traffic Service. Initial contact may be established with the USCG Bridge Office by telephone at (510) 437-3515. (Actual telephone numbers will be provided in the official USCG letter of approval.

m. When performing hazardous operations in or over the channel, the bridge owner shall provide boats and flagmen as necessary, to stop vessels from entering the work zone.

n. Additional conditions may be imposed depending upon the specific project and the proposed work.

U.S. Department of Homeland Security
United States Coast Guard

Commander
District Eleven

U.S. Coast Guard Island, Bldg 50-2
Alameda, CA 94501-5100
Staff Symbol: (dpw)
Phone: (510) 437-3514
Fax: (510) 437-5836

2008 SEP 29 AM 10 54

16593
Mokelumne River (3.0)
September 25, 2008

California Department of Transportation
Attn: Mr. Subhash Johar, P.E.
1976 E. Charter Way
Stockton, CA 95205

Dear Mr. Johar:

We have completed our review of your proposal dated September 15, 2008, for planned modifications and upgrades to the restroom and electrical components of the CA Rte 12 drawbridge, mile 3.0 Mokelumne River.

The subject bridge is a legally permitted structure on a navigable waterway. As proposed this project will not change the appearance or the existing vertical and horizontal navigational clearances of the bridge. Therefore, a Coast Guard Bridge Permit will not be required.

Please review the enclosed copies of pertinent governing bridge regulations found in Title 33, Code of Federal Regulations, Part 117.

Proposals to perform work that may temporarily impact the normal operation of the drawbridge must be submitted at least 30 days in advance, or earlier, to avoid delays to your project.

I can be contacted by telephone at (510) 437-3516 if additional information is needed.

Sincerely,

DAVID H. SULOUFF
Chief, Bridge Section
Eleventh Coast Guard District
By direction of the District Commander

Enclosure: 33 CFR 117.35 & 33 CFR 117.175

§ 117.35 Temporary change to a drawbridge operating schedule.
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(a) For any temporary change to the operating schedule of a drawbridge, lasting less than or equal to 180 days, the District Commander may issue a deviation approval letter to the bridge owner and publish a "Notice of deviation from drawbridge regulation" in the Federal Register.

(b) If the time period for a temporary change to the operating schedule of a drawbridge will be greater then 180 days, the District Commander will follow appropriate rulemaking procedures and publish a temporary rule in the Federal Register prior to the start of the action.

(c) Request for change. (1) To temporarily change the drawbridge-operating requirements the bridge owner must submit a written request to the District Commander for approval of the change.

(2) The request must describe the reason for the closure and the dates and times scheduled for the start and end of the change.

(3) Requests should be submitted as early as possible, preferably 90 days before the start of the action. District Commanders have discretion to accept requests submitted less than 90 days before a needed change if those requests can be processed before the date of the needed change.

(d) Determination. The District Commander's determination to allow the schedule change is normally forwarded to the bridge owner within ten working days after receipt of the request. If the request is denied, the reasons for the denial will be set out in the District Commander's decision letter.

(e) The drawbridge must return to its regular operating schedule immediately at the end of the designated time period.

(f) If the authorized closure period for an event is broken into separate time periods on the same day or on consecutive days, the drawbridge must provide openings for navigation between the authorized closures.

(g) The District Commander will also announce the change to the operating schedule in the Local Notice to Mariners and other appropriate local media.

[USCG-2001-10881, 71 FR 70308, Dec. 4, 2006]

§ 117.175 Mokelumne River.
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(a) The draw of the California Department of Transportation highway bridge, the Mokelumne River Bridge, mile 3.0, at East Isleton shall open upon signal as follows:

(1) From November 1 through April 30 from 9 a.m. to 5 p.m.

(2) From May 1 through October 31 from 6 a.m. to 10 p.m., except that during

the following periods the draw need only open for recreational vessels on the hour, 20 minutes past the hour, and 40 minutes past the hour:

Saturdays 10 a.m. until 2 p.m.

Sundays 11 a.m. until 6 p.m.

Memorial Day; 4th of July; and Labor Day 11 a.m. until 6 p.m.

(3) At all other times the draw shall open on signal if at least 4 hours notice is given to the drawtender at Rio Vista bridge over the Sacramento River, mile 12.8.

(4) Emergency vessels of the United States, state or commercial vessels engaged in rescue or emergency salvage operations, and vessels in distress shall be passed as soon as possible but no later than one hour after notice is given.

(b) The draw of the Sacramento and San Joaquin Counties (Millers Ferry) highway bridge, mile 12.1 over the North Fork of the Mokelumne River near Walnut Grove, shall open on signal from May 1 through October 31 from 9 a.m. to 5 p.m. At all other times, the draw shall open on signal if at least 12 hours notice is given to the San Joaquin County Department of Public Works at Stockton.

(c) The removable span of the San Joaquin County highway bridge over the South Fork of the Mokelumne River, mile 18.0 at New Hope Landing, shall be removed as soon as possible upon notification by the District Commander that an emergency exists which requires the removal.

(d) The draws of the bridges above New Hope Landing need not be opened for the passage of vessels.

[CGD 82-025, 49 FR 17452, Apr. 24, 1984, as amended by CGD 11-92-10, 58 FR 33339, June 17, 1993]