INFORMATION HANDOUT

For Contract No. 02-4F58U4
At 02-Sis-5-R57.8/R58.5

Identified by
Project ID 0215000021

MATERIALS INFORMATION

Klamath River Bridges Rail Upgrade & Strengthening

Asbestos and Lead-Containing Paint Survey Report

INFORMATION HANDOUT

KLAMATH RIVER BRIDGES RAIL UPGRADE & STRENGTHENING

SIS 5 PM R57.8/R58.5

02-4F58U1

FOR CONSTRUCTION CONTRACT
IN SISKIYOU COUNTY NEAR HORNBROOK
FROM 0.3 MILE SOUTH OF KLAMATH RIVER ROAD UNDERCROSSING
TO 0.5 MILE NORTH OF KLAMATH RIVER ROAD UNDERCROSSING

ASBESTOS AND LEAD-CONTAINING PAINT SURVEY REPORT
KLAMATH RIVER BRIDGES
02-0133L/R & 02-0134L/R

Note: The following information includes the written documentation on the field survey of asbestos and lead-containing paint by GEOCON Consutants Inc under contract 03A2132, task order 70 for Caltrans dated March 7, 2016.

All information herein are as known to the State of California, Caltrans, and are to be verified by the Contractor per the Standard Specifications.

Table of Contents

INFORMATION HANDOUT

General Provisions

This information has been provided by Caltrans as notification to the contractor conducting demolition, renovation or related activities to the above noted bridges, requires compliance with Cal/OSHA asbestos standard (Title 8, CCR 1529). The structures in this contract do not have lead-containing paint on its surfaces, no samples were taken or reported.

Written notification to the U.S. EPA Region IX and the California Air Resources Board is required ten working days prior to commencement of any demolition activities. (GEOCON report no. S9805-01-70, page 4).

INDEX OF PLANS

SHEET No.	DESCRIPTION
1	TITLE AND LOCATION MAP
2	TYPICAL CROSS SECTIONS
3-7	LAYOUTS
8-11	CONSTRUCTION DETAILS
12	UTILITY PLANS
13	CONSTRUCTION AREA SIGNS
14-32	STAGE CONSTRUCTION PLANS
33	TRAFFIC HANDLING PLAN
34	DETOUR PLAN
35-44	PAVEMENT DELINEATION PLANS
45	SUMMARY OF QUANTITIES
46-48	ELECTRICAL PLANS
49-?	REVISED STANDARD PLANS
STRUCTURE PLANS	
XX-XX	STRUCTURES

THE STANDARD PLANS LIST APPLICABLE TO THIS CONTRACT IS INCLUDED IN THE NOTICE TO BIDDERS AND SPECIAL PROVISIONS BOOK.

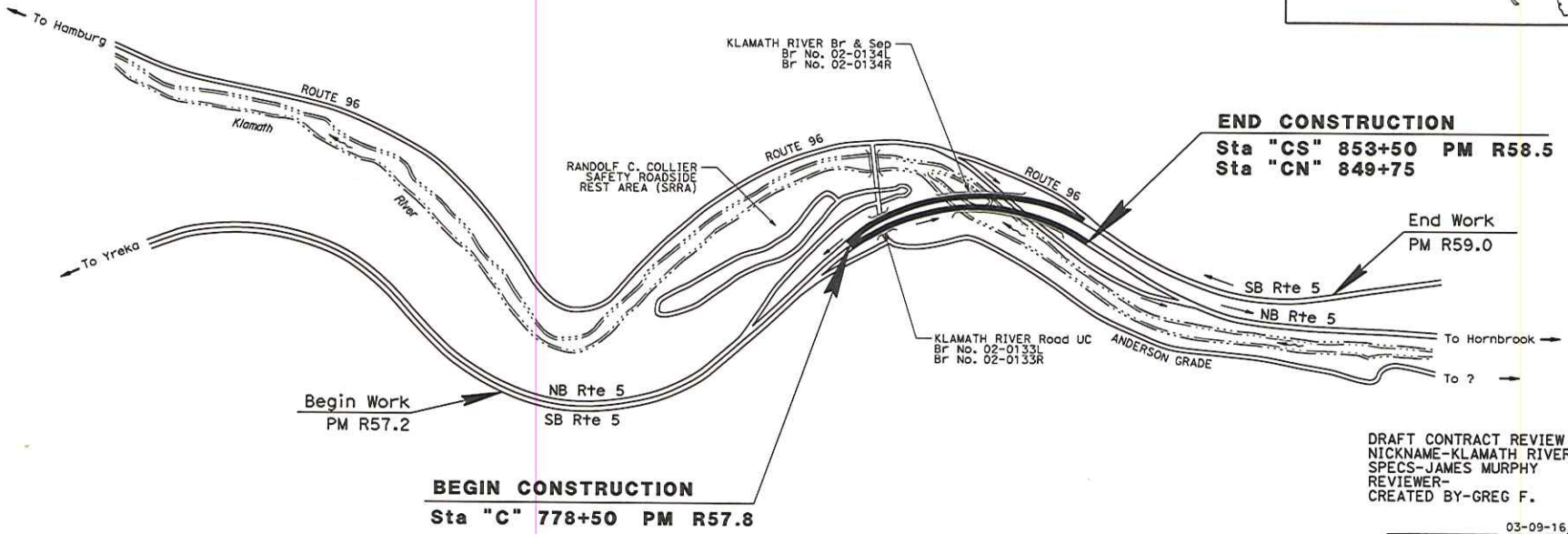
STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

PROJECT PLANS FOR CONSTRUCTION ON
STATE HIGHWAY

IN SISKIYOU COUNTY NEAR HORNBROOK FROM 0.3 MILE SOUTH OF KLAMATH RIVER ROAD UNDERCROSSING TO 0.5 MILE NORTH OF KLAMATH RIVER ROAD UNDERCROSSING

TO BE SUPPLEMENTED BY STANDARD PLANS DATED 2010

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
02	Sis	5	R57.8/R58.5	1	67



DRAFT CONTRACT REVIEW (DCR)
NICKNAME-KLAMATH RIVER BRIDGES
SPECS-JAMES MURPHY
REVIEWER-
CREATED BY-GREG F.

03-09-16
PROJECT ENGINEER DATE
REGISTERED CIVIL ENGINEER

KEN HALLIS
No. C38203
Exp. 3-31-17
CIVIL
STATE OF CALIFORNIA

?
PLANS APPROVAL DATE

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

LOCATION MAP
PAGE 3

THE CONTRACTOR SHALL POSSESS THE CLASS (OR CLASSES) OF LICENSE AS SPECIFIED IN THE "NOTICE TO BIDDERS."

NO SCALE

DESIGN MANAGER	PROJECT MANAGER
ERIC ORR	ERIC AKANA

CONTRACT No.	02-4F58U4
PROJECT ID	0215000021

LAST REVISION 02-05-16
DATE PLOTTED => 24-MAY-2016
TIME PLOTTED => 16:56

P:\proj\1\02\4f58u\design\510_Plans\24f58ub001.dgn

BORDER LAST REVISED 10/4/2013 | CALTRANS WEB SITE IS: HTTP//WWW.DOT.CA.GOV/ | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | USERNAME => s113260 DGN FILE => 24f58ub001.dgn | UNIT 0316 | PROJECT NUMBER & PHASE 02 1500 0021 1

LEGEND:

- Indicates Point of Minimum Vertical Clearance
- Indicates Existing Structure
- Indicates Bridge Removal (Portion)

NOTES:

1. Existing Type 11 Metal Railing to be removed and salvaged.
2. Existing Type 9 Concrete Barrier and Bridge Deck Overhang to be removed and replaced.
3. Concrete Barrier Type 736
4. Stucture Approach Type R(30D) and Joint Seals
5. CFRP Sheet (Exterior)
6. CFRP Sheet (Interior)
7. Paint Bridge Number and Name of Structure
8. Temporary Railing Type K, see "ROADWAY PLANS"

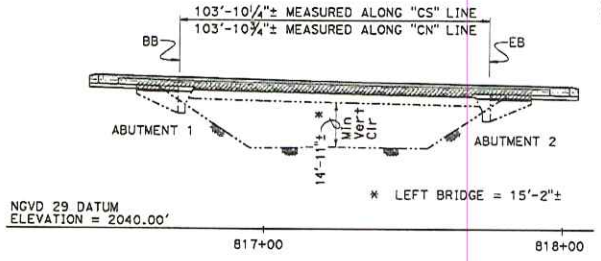
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
02	Sis	5			

REGISTERED CIVIL ENGINEER — DATE X-X-XX

PLANS APPROVAL DATE

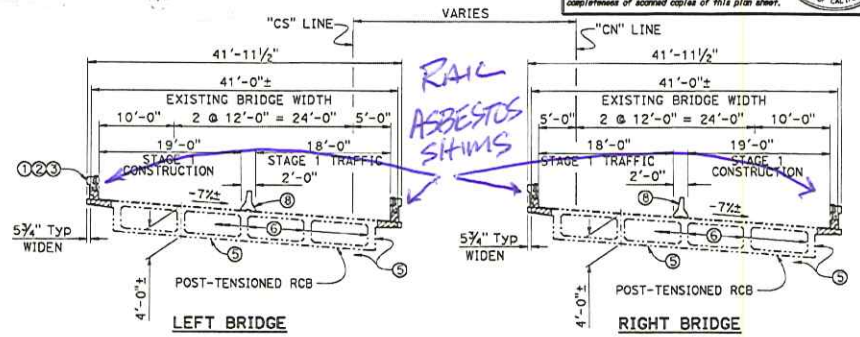
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of scanned copies of this plan sheet.

William M Addlespurger — No. 50697 — Exp. 09-30-17 — CIVIL — STATE OF CALIFORNIA — REGISTERED PROFESSIONAL ENGINEER



ELEVATION

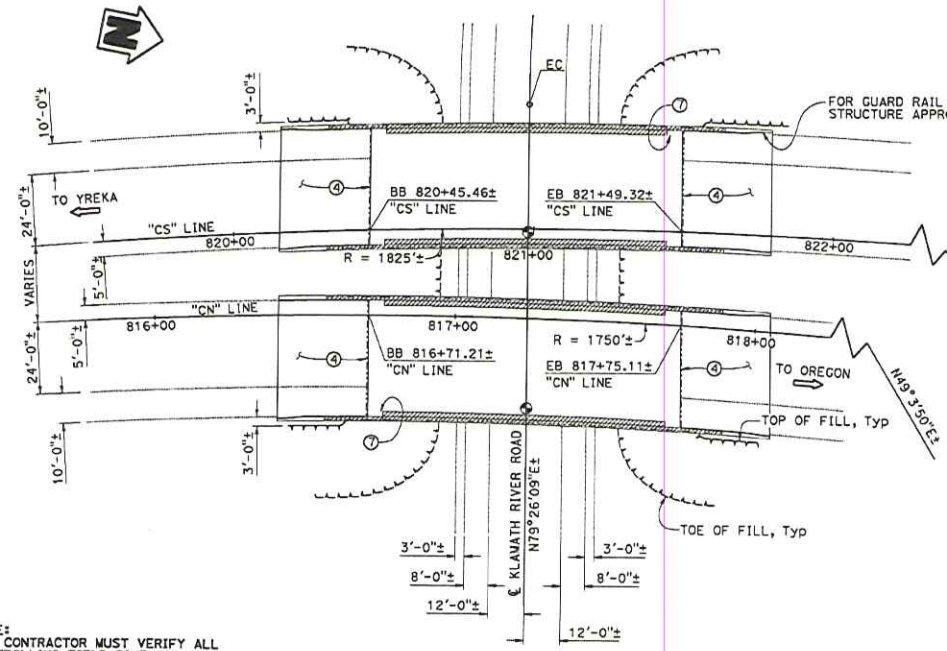
1" = 20'-0"



NOTE:
For complete staging, see "ROADWAY PLANS"

TYPICAL SECTION

⅛" = 1'-0"



PLAN

1" = 20'-0"

NOTE:
THE CONTRACTOR MUST VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

INDEX TO PLANS

STANDARD PLANS 2010

	A10A	ABBREVIATIONS (SHEET 1 OF 2)
RSP	A10B	ABBREVIATIONS (SHEET 2 OF 2)
	B0-5	BRIDGE DETAILS
	B0-13	BRIDGE DETAILS
RSP	B6-21	JOINT SEALS (MAXIMUM MOVEMENT RATING = 2")
RSP	B11-56	CONCRETE BARRIER TYPE 736

STANDARD PLAN SHEET No.

DETAIL No.

GENERAL NOTES

DESIGN:

AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 6th Edition and California Amendments, dated January 2014.

ACI 440.2R-08 Guide for the Design and Construction of Externally Bonded FRP Systems for Strengthening Concrete Structures.

AASHTO-GUIDE SPECIFICATIONS for Design of Bonded FRP Systems for Repair and Strengthening of Concrete Bridge Elements. First Edition 2012.

BARRIER LOADING: (Test Level 4)

DEAD LOAD:

Includes 12 psf for polyester overlay

REINFORCED CONCRETE:

f_y : 60 ksi

f'_c : 5 ksi deck overhangs

f'_c : 3.6 ksi Wing Walls

CARBON FIBER REINFORCED POLYMER (CFRP) NEAR SURFACE MOUNTED (NSM)

MATERIAL	TENSILE STRENGTH (ksi)	MINIMUM TENSILE MODULUS OF ELASTICITY (ksi)	ULTIMATE STRAIN (%)
WET LAYUP FIBER SHEET	390	28800	1.35

Matt Holm — DESIGN ENGINEER	DESIGN	B. Addlespurger	D. Menzmer	LOAD & RESISTANCE FACTOR DESIGN	LIVE LOADING: HL93 and PERMIT DESIGN VEHICLE		
	DETAILS	H. Mauroschodt	D. Menzmer	LAYOUT	B. Addlespurger	D. Menzmer	
	QUANTITIES	P. Mak	B. Addlespurger	SPECIFICATIONS	T. Nedelick	PLANS AND SHEETS COMPARED Y	

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS: 0 1 2 3

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
STRUCTURE DESIGN
DESIGN BRANCH 12

BRIDGE NO. 02-0133R/L
POST MILE R 58.1

KLAMATH RIVER ROAD UC
GENERAL PLAN

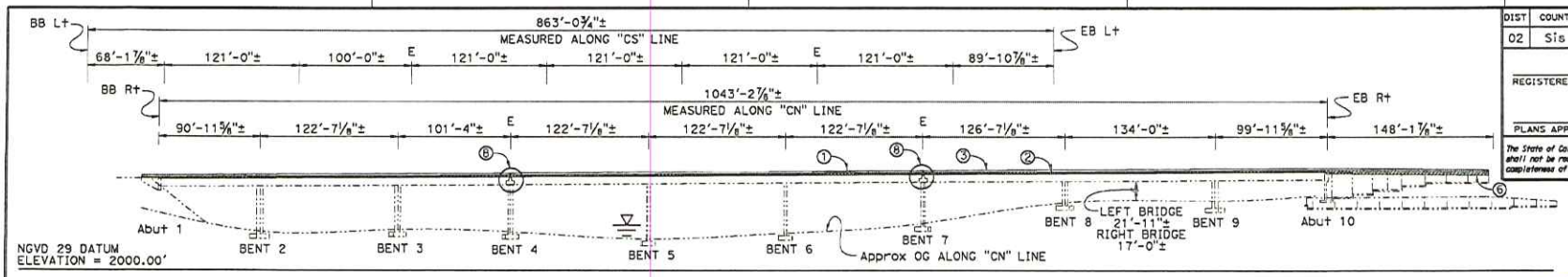
UNIT: 3606
PROJECT NUMBER & PHASE: 0215000021
CONTRACT NO.: 02-4F580

DISREGARD PRINTS BEARING EARLIER REVISION DATES

REVISION DATES: 1-20-16 | 2-26-16 | 7-7-16 | 7-19-16

SHEET 1 OF 7

BR 02-0133 L/R PAGE 4



DEVELOPED ELEVATION

1" = 50'-0"

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
02	Sis	5			

REGISTERED CIVIL ENGINEER — DATE X-X-XX

PLANS APPROVAL DATE

The State of California or its officers or agents shall not be responsible for the accuracy or completeness of scanned copies of this plan sheet.

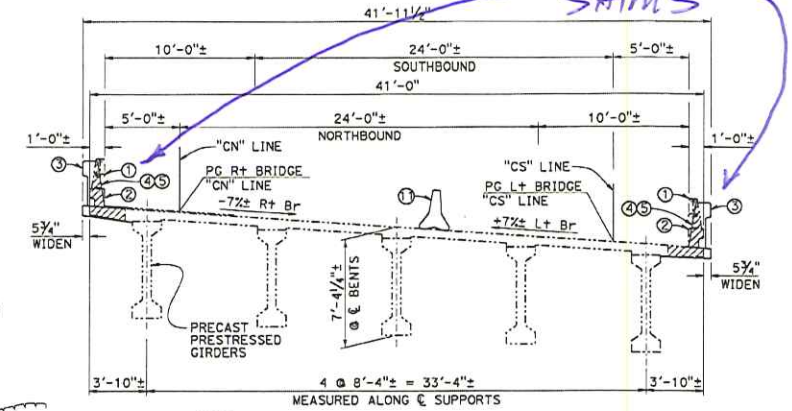
RAIL ASBETOS SHIMS

NOTES:

1. Existing Type 11 Metal Railing to be removed and salvaged.
2. Existing Type 9 Concrete Barrier and Bridge Deck Overhang to be removed and replaced.
3. Concrete Barrier Type 736
4. Paint Bridge Number and Name of Structure.
5. Paint Bent Numbers on wide shoulder side.
6. New Barrier Slab Construction
7. Structure Approach Type R (30S), and Joint Seals
8. Fabricated WABO Strip Seal
9. Clean Expansion Joint (Depth = 1'-3")
10. Neoprene Gland
11. Temporary Railing Type K, see "ROADWAY PLANS".

LEGEND:

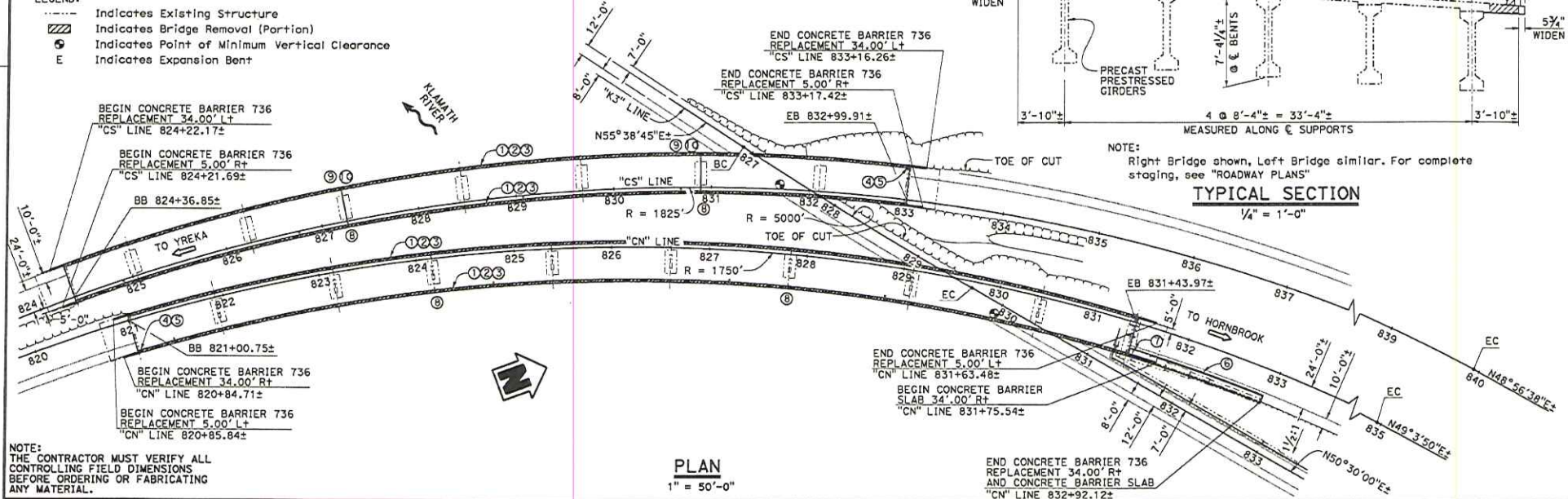
- Indicates Existing Structure
- Indicates Bridge Removal (Portion)
- Indicates Point of Minimum Vertical Clearance
- E Indicates Expansion Bent



NOTE:
Right Bridge shown, Left Bridge similar. For complete staging, see "ROADWAY PLANS"

TYPICAL SECTION

¼" = 1'-0"



NOTE:
THE CONTRACTOR MUST VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

PLAN

1" = 50'-0"

Matt Holm
DESIGN ENGINEER

	BY	CHECKED
DESIGN	B. Addlespurger	D. Menzmer
DETAILS	H. Mauroschadt	D. Menzmer
QUANTITIES	J. Wang	B. Addlespurger

LOAD & RESISTANCE FACTOR DESIGN — LOADING: EXTREME EVENT II

	BY	CHECKED
LAYOUT	B. Addlespurger	D. Menzmer
SPECIFICATIONS	T. Nedwick	PLANS AND SPECS COMPARED

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
STRUCTURE DESIGN
DESIGN BRANCH 12

BRIDGE NO. 02-0134R/L
POST MILE R 58.2

KLAMATH RIVER BRIDGE & SEPARATION
GENERAL PLAN

UNIT: 3606
PROJECT NUMBER & PHASE: 0215000021
CONTRACT NO.: 02-4F58U

DISREGARD PRINTS BEARING EARLIER REVISION DATES

REVISION DATES				SHEET	OF
				1	11

BR 02-0134 L/R

PAGE 5

Project No. S9805-01-70
March 7, 2016

Mr. Rajive Chadha
California Department of Transportation - District 3
Environmental Engineering Office
703 B Street
Marysville, California 95901

Subject: ASBESTOS AND LEAD-CONTAINING PAINT SURVEY REPORT
KLAMATH RIVER BRIDGES (02-0134L/R AND 02-0133L/R)
SISKIYOU COUNTY, CALIFORNIA
CONTRACT NO. 03A2132, E-FIS 02 1500 0021 1 (EA 02-4F58U1)
TASK ORDER NO. 70, 02-SIS-5, POST MILES 58.18 AND 58.10

Dear Mr. Chadha:

In accordance with California Department of Transportation (Caltrans) Contract No. 03A2132 and Task Order No. 70, we have performed an asbestos and lead-containing paint (LCP) survey of the subject bridges in Siskiyou County, California. Our scope of services included surveying the bridges for suspect asbestos-containing materials and LCP, collecting bulk samples, and submitting the samples to a laboratory for analysis.

PROJECT DESCRIPTION

The project consists of the Klamath River Bridge (02-0134L/R) and Klamath River Road Bridge (02-0133L/R) at Post Miles (PM) 58.18 and 58.10, respectively, on Interstate 5 in Siskiyou County, California. We performed asbestos and LCP survey activities at the project location. The bridges are depicted in the attached photographs.

GENERAL OBJECTIVES

Our scope of services included determination of the presence and quantity of asbestos and LCP at the bridges prior to improvements. 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.

BACKGROUND

Asbestos

The Code of Federal Regulations (CFR), 40 CFR 61, Subpart M, 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 California 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, California Code of Regulations (CCR) §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 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 more than 0.1% asbestos (Title 8, CCR 341.6).

Lead

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 separating from a substrate. Demolition of a deteriorated LCP component would require waste characterization and appropriate disposal. Intact LCP on a component is currently accepted by most landfills and recycling 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 concentration) 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 disturb LCP coatings during renovation or 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 disturbance of materials coated with LCP. Guidelines regarding regulatory provisions for construction work where workers may be exposed to lead are presented in Title 8, CCR, Section 1532.1.

SCOPE OF SERVICES

Mr. David Watts, a California-Certified Asbestos Consultant (CAC), certification No. 98-2404 (expiration September 16, 2016), 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, 2016), performed the asbestos and LCP survey on January 25, 2016. A total of 12 bulk asbestos samples were collected. We did not observe painted structural members on the bridges. Consequently, we collected no paint samples.

Suspect ACM were grouped into homogeneous areas with representative samples randomly collected from each. In addition, each potential ACM was evaluated for friability. Our asbestos procedures for inspection and sampling are discussed below:

- Collected bulk asbestos samples after first wetting materials with a light mist of water. The samples were then cut from the substrate and transferred to labeled containers.
- Relinquished bulk asbestos samples under chain-of-custody protocol to EMSL Analytical, Inc. (EMSL), a California-licensed laboratory, 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 5-day turnaround.

Bridge and asbestos sample identification numbers, material descriptions, approximate quantities, and friability assessments are summarized on the table below. Materials represented by the samples collected are shown in the attached photographs.

INVESTIGATIVE RESULTS

Chrysotile asbestos at a concentration of 75% was detected in samples representing nonfriable sheet packing used as barrier rail shims on the bridges. We were unable to quantify the sheet packing due to safety concerns (i.e., traffic).

No asbestos was detected in samples of the remaining suspect materials collected during our survey. Bridge and asbestos sample identification numbers, material descriptions, approximate quantities,

friability assessments, and a summary of the analytical laboratory test results for asbestos are summarized below. Reproductions of the laboratory report and chain-of-custody documentation are attached.

	Polarized Light Microscopy (PLM) - EPA Test Method 600/R-93/116				
Bridge No.	**Sample No.**	**Description of Material**	**Approximate Quantity**	**Friable**	**Asbestos Content**
0134L/R	1A and B	Concrete	NA	NA	ND
	2A and B	Asphalt	NA	NA	ND
	3A and B	Joint fill material	NA	NA	ND
	4A and B	Sheet packing	Unable to quantify	No	75%
0133L/R	1A and B	Concrete	NA	NA	ND
	2A and B	Sheet packing	Unable to quantify	No	75%

NA = Not applicable
ND = Not detected

RECOMMENDATIONS

NESHAP regulations do not require that asbestos-containing sheet packing (a Category I nonfriable/nonhazardous material) identified during our survey be removed prior to renovation or be treated as a hazardous waste. The sheet packing may also be reused or stored. However, activities causing *disturbance* of the material (i.e., cutting, abrading, sanding, grinding, etc.) would require compliance with the Cal/OSHA asbestos standard (Title 8, CCR §1529).

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

Contractors are responsible for informing landfills and recycling facilities of the contractor's intent to dispose of asbestos waste. Landfills and recycling facilities may require additional waste characterization. Contractors are responsible for segregating and characterizing waste streams prior to disposal.

Written notification to the U.S. EPA Region IX and the California Air Resources Board is required ten working days prior to commencement of *any* demolition activity (whether asbestos is present or not).

We recommend that paints at the project location (signage, traffic striping, etc.) be treated as lead-containing for purposes of determining the applicability of the Cal/OSHA lead standard during maintenance, renovation, and demolition activities. This recommendation is based on the fact that lead was a common ingredient of paints manufactured before 1978 and is still an ingredient of some paints.

Compliance and training requirements regarding construction activities where workers may be exposed to lead are presented in Title 8, CCR, § 1532.1, subsections (e) and (l), respectively. Contractors are responsible for segregating and characterizing waste streams prior to disposal.

REPORT LIMITATIONS

This survey was conducted in conformance with generally accepted standards of practice for identifying and evaluating asbestos and LCP in structures. The survey addressed only the structures and materials identified above. Due to the nature of structure surveys, asbestos and LCP use, and

laboratory analytical limitations, some ACM and/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 materials 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 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.

Please contact us should you have any 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

John E. Jahrend, PE, CEG
Project Manager

(2 + 2 CD) Addressee

Attachments: Site Photographs (1 through 9)
Analytical Laboratory Report and Chain-of-custody Documentation

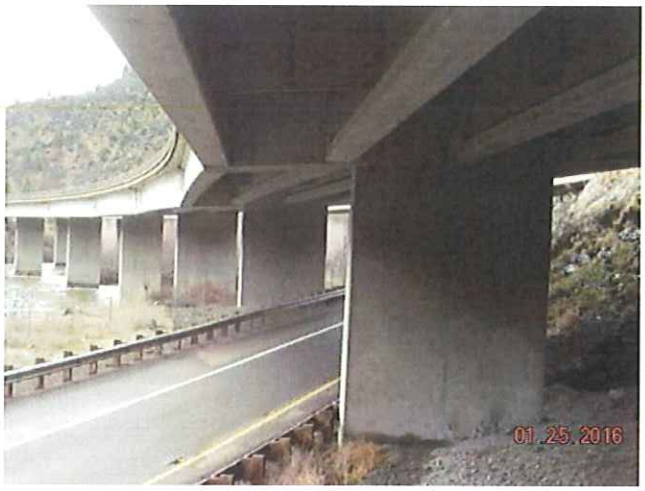


Photo 1 – Klamath River Bridge (02-0134L/R) at PM 58.18 on Interstate 5 in Siskiyou County, California

Photo 2 – Bridge deck and barriers (with asbestos sheet packing used as barrier rail shims)

Photo 3 – North abutment

GEOCON
CONSULTANTS, INC.
3160 GOLD VALLEY DR – SUITE 800 – RANCHO CORDOVA, CA 95742
PHONE 916.852.9118 – FAX 916.852.9132

PHOTOGRAPHS 1, 2, & 3		
Klamath River Bridges Siskiyou County, California		
S9805-01-70		March 2016

Photo 4 – Polyvinyl chloride (non-suspect) drainpipe

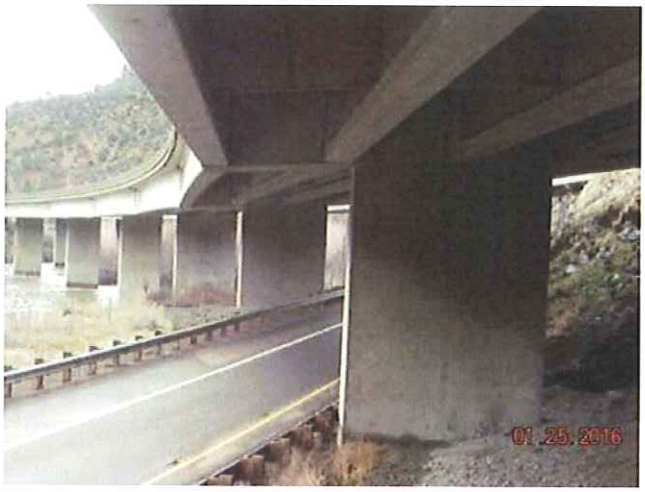


Photo 5 – Concrete girder system

Photo 6 – Southbound span

GEOCON
CONSULTANTS, INC.
3160 GOLD VALLEY DR – SUITE 800 – RANCHO CORDOVA, CA 95742
PHONE 916.852.9118 – FAX 916.852.9132

PHOTOGRAPHS 4, 5, & 6		
Klamath River Bridges Siskiyou County, California		
S9805-01-70		March 2016

Photo 7 – Klamath River Road Bridge (02-0133L/R) PM 58.10 on Interstate 5 in Siskiyou County, California

Photo 8 – Bridge deck and barriers (with asbestos sheet packing used as barrier rail shims)

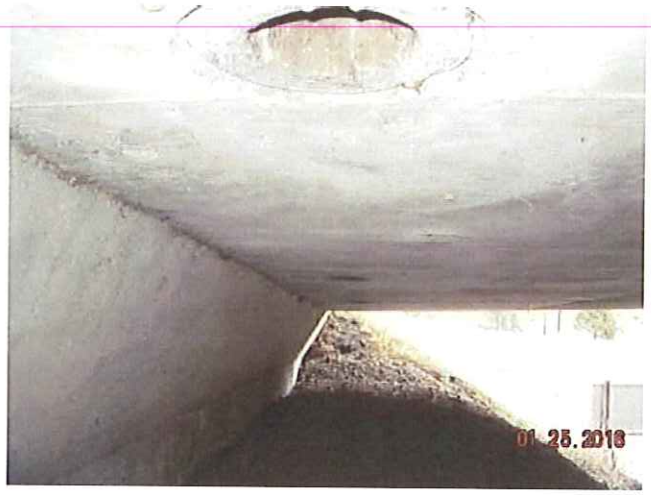


Photo 9 – South abutment

EMSL Analytical, Inc.

464 McCormick Street San Leandro, CA 94577
Tel/Fax: (510) 895-3675 / (510) 895-3680
http://www.EMSL.com / sanleandrolab@emsl.com

EMSL Order: 091601508
Customer ID: GECN21
Customer PO: 03A2132
Project ID: 03A2132

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

Project: Collier Bridges / S9805-01-07 (03A2132)

Phone: (925) 785-5340
Fax: (925) 371-5915
Received Date: 01/27/2016 12:15 PM
Analysis Date: 02/03/2016
Collected Date: 01/25/2016

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

Sample	Description	Appearance	Non-Asbestos % Fibrous	Non-Asbestos % Non-Fibrous	Asbestos % Type
0134 L/R-1A *091601508-0001*	Concrete	Gray Non-Fibrous Homogeneous		30% Quartz 30% Ca Carbonate 40% Non-fibrous (Other)	None Detected
0134 L/R-1B *091601508-0002*	Concrete	Gray Non-Fibrous Homogeneous		30% Quartz 30% Ca Carbonate 40% Non-fibrous (Other)	None Detected
0134 L/R-2A *091601508-0003*	Asphalt	Black Non-Fibrous Homogeneous		25% Quartz 70% Matrix 5% Non-fibrous (Other)	None Detected
0134 L/R-2B *091601508-0004*	Asphalt	Black Non-Fibrous Homogeneous		25% Quartz 70% Matrix 5% Non-fibrous (Other)	None Detected
0134 L/R-3A *091601508-0005*	Joint Fill Mat'L	Brown Fibrous Homogeneous	85% Cellulose	15% Non-fibrous (Other)	None Detected
0134 L/R-3B *091601508-0006*	Joint Fill Mat'L	Brown Fibrous Homogeneous	85% Cellulose	15% Non-fibrous (Other)	None Detected
0134 L/R-4A *091601508-0007*	Sheet Packing	Black Fibrous Homogeneous		25% Non-fibrous (Other)	75% Chrysotile
0134 L/R-4B *091601508-0008*	Sheet Packing				Stop Positive (Not Analyzed)
0133 L/R-1A *091601508-0009*	Concrete	Gray Non-Fibrous Homogeneous		30% Quartz 30% Ca Carbonate 40% Non-fibrous (Other)	None Detected
0133 L/R-1B *091601508-0010*	Concrete	Gray Non-Fibrous Homogeneous		30% Quartz 30% Matrix 40% Non-fibrous (Other)	None Detected
0133 L/R-2A *091601508-0011*	Sheet Packing	Black Fibrous Homogeneous		25% Non-fibrous (Other)	75% Chrysotile
0133 L/R-2B *091601508-0012*	Sheet Packing				Stop Positive (Not Analyzed)

Initial Report From: 02/03/2016 10:18:52

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EMSL Order: 091601508
Customer ID: GECN21
Customer PO: 03A2132
Project ID: 03A2132

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

Sample	Description	Appearance	Non-Asbestos % Fibrous	Non-Asbestos % Non-Fibrous	Asbestos % Type

Analyst(s)
Nonette Patron (10)

Chris Dojlidko, Laboratory Manager
or Other Approved Signatory

Initial Report From: 02/03/2016 10:18:52

OrderID: 091601508

EMSL ANALYTICAL, INC.
LABORATORY • PRODUCTS • TRAINING

Asbestos Chain of Custody

EMSL Order Number (*Lab Use Only*):

#091601508

03A2132

EMSL ANALYTICAL, INC.
464 MCCORMICK STREET
SAN LEANDRO, CA 94577
PHONE: (510) 895-3675
FAX: (510) 230-3537

Company: GEOCON		EMSL-Bill to: ☒ Same ☐ Different If Bill to is Different note instructions in Comments**	
Street: 6671 BRISA ST		*Third Party Billing requires written authorization from third party*	
City: LIVERMORE	State/Province: CA	Zip/Postal Code: 94550	Country: USA
Report To (Name): D. WATTS		Fax #: 925-371-5915	
Telephone #: 925-371-5900		Email Address: WATTS@GEOCONINC.COM	
Project Name/Number: COLLIER BRIDGE / 19805-01-70			
Please Provide Results: ☐ Fax ☒ Email	Purchase Order: 03A2132	U.S. State Samples Taken: CA	

Turnaround Time (TAT) Options* – Please Check

☐ 3 Hour ☐ 6 Hour ☐ 24 Hour ☐ 48 Hour ☐ 72 Hour ☐ 96 Hour ☒ 1 Week ☐ 2 Week

**For TEM Air 3 hr through 6 hr, please call ahead to schedule.*There is a premium charge for 3 Hour TEM AHERA or EPA Level II TAT. You will be asked to sign an authorization form for this service. Analysis completed in accordance with EMSL's Terms and Conditions located in the Analytical Price Guide.*

PCM - Air
- ☐ NIOSH 7400
- ☐ w/ OSHA 8hr. TWA

PLM - Bulk (reporting limit)
- ☒ PLM EPA 600/R-93/116 (<1%)
- ☐ PLM EPA NOB (<1%)

Point Count
- ☐ 400 (<0.25%) ☐ 1000 (<0.1%)

Point Count w/Gravimetric
- ☐ 400 (<0.25%) ☐ 1000 (<0.1%)
- ☐ NYS 198.1 (friable in NY)
- ☐ NYS 198.6 NOB (non-friable-NY)
- ☐ NIOSH 9002 (<1%)

TEM – Air ☐ 4-4.5hr TAT (AHERA only)
- ☐ AHERA 40 CFR, Part 763
- ☐ NIOSH 7402
- ☐ EPA Level II
- ☐ ISO 10312

TEM - Bulk
- ☐ TEM EPA NOB
- ☐ NYS NOB 198.4 (non-friable-NY)
- ☐ Chatfield SOP
- ☐ TEM Mass Analysis-EPA 600 sec. 2.5

TEM – Water: EPA 100.2
- Fibers >10µm ☐ Waste ☐ Drinking
- All Fiber Sizes ☐ Waste ☐ Drinking

TEM- Dust
- ☐ Microvac - ASTM D 5755
- ☐ Wipe - ASTM D6480
- ☐ Carpet Sonication (EPA 600/J-93/167)

Soil/Rock/Vermiculite
- ☐ PLM CARB 435 - A (0.25% sensitivity)
- ☐ PLM CARB 435 - B (0.1% sensitivity)
- ☐ TEM CARB 435 - B (0.1% sensitivity)
- ☐ TEM CARB 435 - C (0.01% sensitivity)
- ☐ EPA Protocol (Semi-Quantitative)
- ☐ EPA Protocol (Quantitative)

Other:
- ☐

☒ **Check For Positive Stop – Clearly Identify Homogenous Group** ANY LAYER

Samplers Name: D. WATTS **Samplers Signature:** WATTS

Sample #	Sample Description	Volume/Area (Air) HA # (Bulk)	Date/Time Sampled
0134L/R-1A/B	CONCRETE	NA	25 JAN 2016
-2A/B	ASPHALT		
-3A/B	JOINT FILL MAT'L		
-4A/B	SHEET PACKING		
0133L/R-1A/B	CONCRETE		
-2A/B	SHEET PACKING		

Client Sample # (s): - **Total # of Samples:** 12

Relinquished (Client): WATTS **Date:** 1/27/16 **Time:** 1210

Received (Lab): ZA **Date:** 1/27/16 **Time:** 12:15pm (W.I)

Comments/Special Instructions: