

INFORMATION HANDOUT

For Contract No. 02-2E8004

At 02-Sis-5-R7.2

Identified by

Project ID 0200000603

MATERIALS INFORMATION

Onsite Review Instructions dated August 18, 2015

Foundation Report dated December 30, 2013

Asbestos and Lead-Containing Paint Survey Report dated February 27, 2014

Asbestos and Lead-Containing Paint Survey Report dated December 29, 2006

Conceptual Construction Sequence, dated January 28, 2015

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Onsite Review Instructions

Onsite review of the Dunsmuir Commercial Vehicle Enforcement Facility (CVEF) is only available by appointment during the advertisement period. Do not contact the Dunsmuir CVEF or the California Highway Patrol to schedule an appointment.

To schedule an appointment for an onsite review call Jeff Pizzi at (530) 225-3035.

Appointments are available between 12:00 PM to 4:00 PM every Tuesday and Thursday (except on observed holidays) during the advertisement period.

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Memorandum

*Flex your power!
Be energy efficient!*

To: JOE ESFANDIARY
Chief, Design Branch 1
Office of Transportation Architecture

Attention: Gang Hong

Date: December 30, 2013

File: 02-SIS-5-PM R7.2
02-2E800, 0200000603
Dunsmuir Grade Truck
Inspection Facility Upgrade

From: DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING SERVICES
GEOTECHNICAL SERVICES – MS 5

Subject: Foundation Report

INTRODUCTION

General

As requested, the Office of Geotechnical Design North (OGDN) is providing this Foundation Report (FR) for the construction of a new office building, material storage building and a water tank. The Dunsmuir Grade Commercial Vehicle Enforcement Facility (CVEF) is located near the town of the same name along Route 5 in Siskiyou County (See Plate 1).

Project Description and Proposed Improvements

The improvements to the CVEF from which our Office will be involved include a new 6500 square foot office building, a new 1200 square foot electrical and mechanical building, and a new water tank located on the northwest corner of the facility. The proposed building will be supported by strip footings and column isolated footings. Plate No. 2 provides a general summary of the extent of the proposed improvements of the CVEF. The plan provided in Plate No. 2 is part of the Foundation Report Request, dated August 7, 2013, (Reference No. 8) provided by Structural Design Branch 1 of the Office of Transportation Architecture Structure Design Services and Earthquake Engineering.

Scope of Work

The scope of work included performing a literature and historical review in an effort to obtain geological and geotechnical data pertaining to the subject site that could provide insight into the design and construction of the proposed building and water tank

foundations. A site investigation for the project included (see Subsurface Exploration and Laboratory Testing Program section) three exploratory borings and sample collections to characterize the subsurface conditions. Laboratory testing of selected samples was performed, followed by engineering analysis and preparation of this report summarizing our findings, conclusions and recommendations.

Subsurface Exploration and Laboratory Testing

Exploratory Borings

Our Office performed a subsurface investigation that included three exploratory borings from August 20, 2013 to August 21, 2013. The subsurface investigation consisted of three vertical 4.5 inch diameter mud rotary borings (designated as RC-13-01 through RC-13-03). Equipment used for the subsurface investigation consisted of a B-47 mobile drill rig equipped with a manual hammer with an efficiency of 57 percent (Reference No. 6). All mud rotary borings were advanced with a self-casing wire line drilling method, and were placed at the locations shown on Plate No. 2, attached. The following Table No. 1 presents a summary of the borings performed.

Table No. 1: Summary of Boring Exploration

Boring Number ⁽¹⁾	Station (ft)	Offset from "R1" Line (ft)	Top Elevation (ft)	Depth (ft)	Bottom Elevation (ft)
RC-13-01	5 + 21	59.0 Lt	3258.5	36.5	3222.0
RC-13-02	2 + 22	22.0 Rt	3257.0	36.5	3220.5
RC-13-03	0 + 64	14.0 Rt	3257.0	5.0	3255.0

Notes: (1) Borings with prefix "RC" used mud rotary wash method with continuous sampling.

Sampling was achieved by utilizing rock core barrel in all borings and intermittently performed Standard Penetration Tests (SPT). The SPT was utilized to characterize soil materials at the proposed new building and water tank locations. Representative samples were selected for subsequent laboratory testing.

Site Description

The overall project site is located between the cities of Dunsmuir and Mount Shasta, adjacent to southbound I-5 at PM R7.2. Caltrans owns the facility, but contracts with the CHP for its operation and minor maintenance. The facility consisted of a permanent scale house, a standby generator building, an office building with attached enclosed inspection bays, a boiler room for heating the inspection bays. The whole facility is paved with AC pavement to provide temporary parking and internal vehicular traffic. The existing building will be replaced with a larger one in the same location to add extra

office space, a meeting room, evidence room, “intox” room, boiler room, and ADA compliance. A water tank will be constructed on the northwest corner of the lot beyond the pavement edge. An existing leach field is located at the northern section of a wooded area, located at the western section of the facility. This leach field will be replaced with a larger system sized to meet the building requirements. Adjacent to the septic leach field is a culvert that drains into a ravine. Our Office will not be involved with the construction of the new leach field.

According to the web-based Caltrans Postmile Query Tool (Reference No. 7), the subject site is located at latitude and longitude coordinates of 41.273866° North and - 122.284068° West, respectively; these coordinates are the basis for obtaining data in this report available through GIS related information sources. Adjacent to the project site, Interstate Route 5 is a four-lane highway paved with asphalt concrete (AC) with paved shoulders. The facility is accessed through a two-lane off and on ramp with paved shoulders.

While performing our site visit, we observed numerous indications of underground utilities around and between the existing buildings.

Regional Geology

The project site is located in the Cascade Range geomorphic province which is a 500-mile-long chain of young volcanic mountains from British Columbia to the northernmost part of California. The volcanoes that make up California’s Cascade geomorphic province are the result of active subduction of the Gorda and Juan de Fuca Plates beneath the North America Plate. The exposed rocks of the California Cascades are mainly volcanic of great variety and form. Some lake deposits including freshwater diatomite, some water-laid tuff and ash, and a few glacial morainal deposits occur on Mount Shasta. The project site is at the southwestern edge of the Cascade geomorphic province, bordered to the west by the Eastern Klamath terrane of the Klamath Mountains geomorphic province of California. The sedimentary and volcanic rocks of the Eastern Klamath terrane rest on older ultramafic rock, known as the Trinity peridotite (Reference No. 2). According to a published geologic map of the region (Reference No. 1), ultramafic rocks are near the project site and belong to the Trinity peridotite. These ultramafic rocks form the largest exposed body of ultramafic rocks in a North America (Reference No. 2). Although the project site is near the eastern edge of these ultramafic rock outcrops, no material similar to these rocks was encountered during our field investigations.

Site Geologic Conditions

According to the Geologic Map of the Weed Quadrangle, California (1987) (Reference No. 1), the materials that underlay the project site are mainly Holocene glacial morainal deposits and outwash consisting of boulders, cobbles, and gravels of volcanic origin in a sandy matrix. The outcrops exposed within project limits compare favorably with those described above (See Plates Nos. 3 and 4).

Subsurface Conditions

Based upon borings performed, the near-surface materials consist of 2 to 3 feet of fill, except within the area designated for the water tank where the fill is absent. These near-surface materials are underlain by morainal deposits consisting of irregular lenses and layers of very dense to medium dense silty sand with gravel and cobble deposits. A more detailed description of the materials encountered in borings is presented on the Logs of Test Borings (LOTBs) attached in Appendix A.

Groundwater

A static groundwater table was not measured when the exploratory borings were performed due to the use of mud rotary method. However, an attempt to measure the water level following the completion of the first exploratory boring (RC-13-01) did not indicate the presence of ground water in the exploratory boring. During our field visits to the project site, the grounds of the facility appeared absent of seeps and springs.

It is anticipated that groundwater should not significantly affect the proposed construction. However, localized groundwater may be encountered.

Naturally Occurring Asbestos (NOA)

The Caltrans Map “Areas Likely to Contain Naturally Occurring Asbestos – District 2” (Reference No. 4) states:

Natural occurrences of asbestos are more likely to be encountered in, and immediately adjacent to, areas of ultramafic rocks including landslide deposits or soils originating from ultramafic rock sources.

The referenced Caltrans map depicts an area likely to contain Naturally Occurring Asbestos (NOA) immediately adjacent to the project limits, but separated by a canyon that has been eroded by Big Canyon Creek. This topographic depression may have precluded the project site area from being contaminated by ultramafic rocks, because no rock of this type were observed or found during our site visits or the subsurface

investigation (See Plate Nos: 5 and 6). Furthermore, in review of available published geologic mapping (Reference No. 1), and the aforementioned NOA mapping, the project area is just outside of NOA area or ultramafic rocks (designated as “serpentinized ultramafic rocks”). Based on the geologic and topographic conditions the potential for the presence of ultramafic rocks within the project area is considered very low.

Soil and Rock Laboratory Testing and Results

Laboratory tests were performed to assess corrosivity and engineering properties of the near-surface soils. These tests included grain size analysis (ASTM D 422), Atterberg Limits (AASHTO T89 and T90) and corrosion testing (CTM 643, CTM 471 and CTM 422).

Laboratory test results for samples collected from borings performed for the new building and water tank site are presented in Appendix B.

Corrosion Evaluation

A composite soil sample was collected from borings RC-13-01 and RC-13-02 during the 2013 subsurface exploration. The Office of Testing and Technology Services, Corrosive Technology Branch tested the composite sample for corrosion potential. The Caltrans Corrosion Guidelines (Reference No. 3) states that:

“A site is considered corrosive if one or more of the following conditions exist for the representative soil and/or water sample taken at the site: Chloride concentration is 550 ppm or greater, sulfate concentration is 2000 ppm or greater, or the pH is 5.5 or less.”

The minimum resistivity serves only as an indicator parameter for the possible presence of soluble salts and is not included to define a corrosive site. If the minimum resistivity of the sample is greater than 1000 ohm-cm, the sample is considered to be non-corrosive and testing to determine the sulfate and chloride content is not performed.

The results of the laboratory tests determined that the composite sample collected at this site is non-corrosive. Refer to Table No. 2 below for the specific test results.

Table No. 2: Corrosion Test Summary

SIC Corrosion Number	Boring Number	Sample Depth (feet)	pH	Minimum Resistivity (ohm-cm)	Sulfate Content (ppm)	Chloride Content (ppm)
CR20130342	RC-13-01	0.0 – 2.5	6.72	5164	N/A	N/A
CR20130343	RC-13-02	1.4 - 5.0	6.56	32130	N/A	N/A

Seismicity

Based on the Caltrans ARS Online Tool (Version 2.3.06) (Reference No. 9), the nearest active fault for the site is the Cedar Mountain fault system Cedar Mountain section-west (Fault ID No. 12) with MMax of 7.0. The fault is located northeast of the project site. The closest distance to the rupture plane is 26.3 miles (See Plate No. 7).

Based on the Log of Test Borings (LOTB), a V_{s30} (the weighted shear wave velocity for the top 100 feet of foundation materials) of 900 feet per second is considered to be applicable to the foundation materials.

The potential for soil liquefaction is considered to be insignificant.

The potential for surface rupture at the site due to fault movement is considered insignificant since there are no known faults projecting towards or passing directly through the project site.

Conclusions and Recommendations

Based on analyses results and findings, the proposed building and water tank foundations are suitable for the site. The frost depth is estimated to be 10 inches as shown in NAVFAC-7.01, 1986. Following the demolition and clearing operations, all depressions extending below final grade resulting from the removal of deleterious materials or soft/loose soils, root systems, and above and below ground facilities should be processed properly and backfilled in accordance with Caltrans Standard Specifications 2010.

For the water tank foundation site, remove two feet of the insitu material beneath the foundation slab and backfill in accordance with Caltrans Standard Specifications 2010.

Moisture Penetration Resistance

To reduce the potential for water and water vapor transmission upward through concrete slab-on-grade, the concrete slab should be constructed on a minimum 4 inch thick layer of capillary break material covered with a vapor retarder. The capillary break material should be a free-draining material complying with Class 1, Type B Permeable Material of the Caltrans Standard Specifications 2010 (Section 68).

The vapor retarder should be at least 10 mil in thickness and should meet the material requirements in ASTM Standard Specification E-1745. The design and selection of the vapor retarder Class (per ASTM E-1745) should be based on the standard practices presented in ASTM E 1643. These standard practices include the ability to withstand tear and puncture damage based on the anticipated construction operations (such as vehicle

traffic), and on the properties of the material directly beneath the vapor retarder. If angular crushed stone is used for the capillary material and/or heavy construction vehicle traffic is expected directly on the vapor retarder, it is recommended that the vapor retarder should be at least 15 mm thickness and have a minimum puncture resistance meeting or exceeding that of the ASTM E 1745 "A" Performance Class.

Installation of the vapor retarder should also meet the standard practices of ASTM E 1643, in addition to the manufacturer's specifications. The ASTM E 1643 standard practices for installation include overlapping seams by at least 6 inches, taping seams, and sealing penetrations in the vapor retarder. These standard practices also include protection measures during construction, such as utilizing rebar supports with base sections that minimize the potential for puncture of the vapor retarder (such as plastic rebar chairs with a large round base support).

The American Concrete Institute (ACI) Committee document ACI 302.2R-06 (Reference No. 12) provides guidelines for reducing moisture migration through slabs-on-grade. This document recommends that concrete slabs be cast directly on the vapor retarder (ACI 302.2R-06, Section 9.3) and provides guidelines for selecting vapor permeation, tensile strength and puncture resistance. As an option, a "blotter" layer consisting of 2 inches of sand could be placed on top of the vapor retarder membrane to aid in proper curing of the slab concrete. However, the potential exists for trapping of moisture in the sand layer above the vapor retarder membrane from water sources such as rainfall, saw cutting operations, and excessive concrete bleed-water. The benefits of proper concrete curing would have to be weighed against efforts to reduce slab moisture vapor transmission.

If relatively higher loading on the floor slab is anticipated (exceeding 250 psf), the capillary break material should be replaced with compacted Caltrans Class 2 aggregate base. The Class 2 aggregate base will not serve as an effective capillary break; hence, a moisture-protection specialist should approve this slab support prior to final design. The use of blotter sand beneath relatively higher loaded slab is not recommended as a considerable reduction in the effective subgrade support can occur.

The recommendations contained in this report concerning foundation and floor slab design are presented as minimum requirements, in respect to geotechnical engineering only. Use of the capillary break material and vapor retarder is not considered to "moisture proof" the slab, nor does it assure that slab moisture transmission levels will prevent damage to floor coverings or other building components. It is emphasized that OGDN does not provide slab moisture proofing or moisture protection expertise. If increase concrete moisture proofing protection is desired, a concrete moisture protection specialist should be consulted.

Seismic Design

Based on the subsurface conditions encountered at the site, and a V_{s30} of 900 feet per second, a Site Class “D” is recommended in accordance with Section 1613 of the 2010 California Building Code (CBC) (Reference No. 5). Table No. 3 provides the Spectral Response Acceleration Parameters.

Table No. 3: Recommended Seismic Ground Motion Values

Period (seconds)	Spectral Response Acceleration (g)
0.2	$S_s = 0.71$
1.0	$S_1 = 0.26$

Note: Spectral response accelerations are obtained from USGS Ground Motion Parameter Calculator website (Reference No. 13).

Foundations

Based on the information from Caltrans Mechanical Engineering, the water tank is a pre-manufactured 15 feet high tank with a 30 feet diameter bottom that will sit on a slab that will sit on the ground surface.

Based on the information from Caltrans Structural Design Branch 1, Office of Transportation Architecture, the proposed building will be founded on continuous strip 2 feet wide footings and 3 feet by 3 feet square column isolated footings. The bottom of footing for the continuous strip and square column footings will be 2 feet below finish grade. The allowable vertical bearing stress is governed by the elastic settlements of 0.25 inch and 0.5 inch for the building and water tank, respectively.

Table No. 4 below presents the requested information for the various foundations.

Table No. 4: Foundation Analysis Results

Location/Footing	Footing Depth D_f (ft)	Allowable Vertical Bearing Stress (kips/ft ²)	Subgrade Modulus K (lb/in ³)	Allowable Lateral Bearing Stress (lb/ft ²)	Lateral Sliding Resistance Coefficient of Friction ⁽¹⁾
Building/Strip	2	5	1000	500	0.35
Building/Column	2	10	1000	500	0.35
Water Tank/Slab	0	2.5	1000	-	0.35

Note: (1) Coefficient of friction is based on 2010 CBC Table 1806A.2.

Construction Considerations

Groundwater is not anticipated to significantly affect the proposed construction but localized groundwater may be encountered.

All footing excavations are to be inspected and approved by this Office or a representative of the Office of Structure Construction before footing concrete placement.

Project Information

Caltrans SSP S5-280, "Project Information", discloses to bidders and contractors a list of pertinent information available for their inspection prior to bid opening. The following is an excerpt from SSP S5-280 disclosing information originating from Geotechnical Services. Items listed to be included in the Information Handout will be provided in Acrobat (.pdf) format to the addressee(s) of this report via electronic mail.

Data and information attached with the project plans are:

- A. *Log of Test Borings, dated 1/2/2014.*

Data and information included in the Information Handout provided to the bidders and contractors are:

- A. *Foundation Report for the Dunsmuir Grade Truck Inspection Facility Upgrade, dated 12/30/2013 by Caltrans Division of Engineering Services, Office of Geotechnical Design North.*

Data and information available for inspection at the District Office:

- B. *None*

If you have any questions or comments, please call Luis Paredes-Mejia at (916) 227-1047, Luke Leong at (916) 227-1081, or Reid Buell at (916) 227-1012.



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Derek O Willis D02- Proj. Mgmt.
Structure Construction RE Pending File
DES OE, Office of PS&E
GEODOG
DME D1

ATTACHMENTS

REFERENCES

- Plate No. 1. Vicinity Map
- Plate No. 2. Project Site Plan
- Plate No. 3. Geologic Map
- Plate No. 4. Geologic Map Legend
- Plate No. 5. Naturally Occurring Asbestos Plan
- Plate No. 6. Naturally Occurring Asbestos Area
- Plate No. 7. Fault Map

APPENDIX A: LOG OF TEST BORINGS (LOTB)

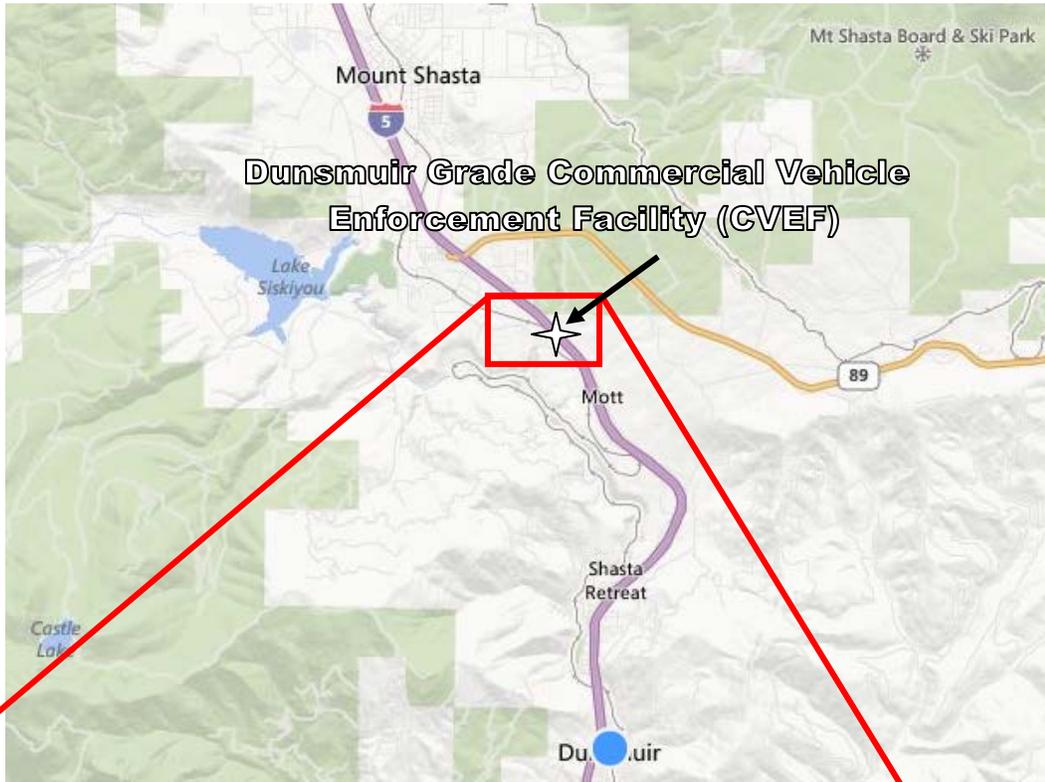
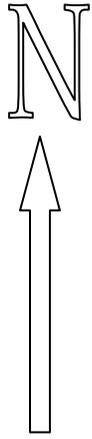
Log of Test Borings 1 To 4

APPENDIX B: LABORATORY TESTS RESULTS

- Plate No. B-1. Soil Grain Size Test Results
- Plate No. B-2. Corrosion Tests Results

REFERENCES

1. CDMG (1987) “Geologic Map of California, Weed Quadrangle, California” by D. L. Wagner and G.J. Saucedo, Scale 1: 250,000 (1987).
2. Harden, Deborah R., (1998) “California Geology”, Prentice-Hall, Inc.
3. Caltrans (2003) “Corrosion Guidelines”, Corrosion Technology Branch, Materials Engineering and Testing Services, Caltrans, Version 1.0, September 2003.
4. Caltrans (2005) “Areas Likely to Contain Naturally Occurring Asbestos – Caltrans District 2”, mapping prepared by the Division of Maintenance GIS in coordination with the Division of Environmental Analysis, 2005 at:
<http://onramp.dot.ca.gov/hq/maint/roadway/gis/noa.shtml>.
5. CBC (2010), “California Building Code” , California Code of Regulations, Title 24, Part 2, Volume 2.
6. Caltrans (2012) “Standard Penetration Test (SPT) Hammer Efficiencies For Caltrans Drill Rigs”, Foundation Testing Branch, Caltrans Geotechnical Services, dated February 2012, from:
http://www.dot.ca.gov/hq/esc/geotech/requests/logging_manual/02_12_spt_het_summary.pdf.
7. Caltrans (2012) “Postmile Query Tool”, based on Google Maps, provided by the Caltrans GIS Services Branch at:
<http://svhqgisapp1.dot.ca.gov/postmilewebclient/PostmileQueryTool.html>.
8. Caltrans (2013) “Foundation Investigation Report Request for Dunsmuir Grade Truck Inspection Facility Upgrade” prepared by Structural Design Branch 1, Office of Transportation Architecture Structure Design Services and Earthquake Engineering, dated August 7, 2013.
9. Caltrans (2013), ARS Online Tool (v2.3.06), by GeoResearch Group, at:
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10. ASTM (2009) “Standard Practice for Selection, Design, Installation, and Inspection of Water Vapor Retarders Used in Contact with Earth or Granular Fill Under Concrete Slabs”, ASTM Designation E 1643-09, approved February 15, 2009.
11. ASTM (2009) “Standard Specification for Plastic Water Vapor Retarders Used in Contact with Soil or Granular Fill under Concrete Slabs”, ASTM Designation E 1745-09, approved February 15, 2009.
12. ACI (2006) “Guide for Concrete Slabs that Receive Moisture Sensitive Flooring Materials”, report by the ACI Committee 302, ACI 302.2R-06, effective August 15, 2006.
13. USGS Earthquake Hazards Program, Java Ground Motion Parameter Calculator, at:
<http://earthquake.usgs.gov/hazards/designmaps/grdmotion.php>.



No Scale



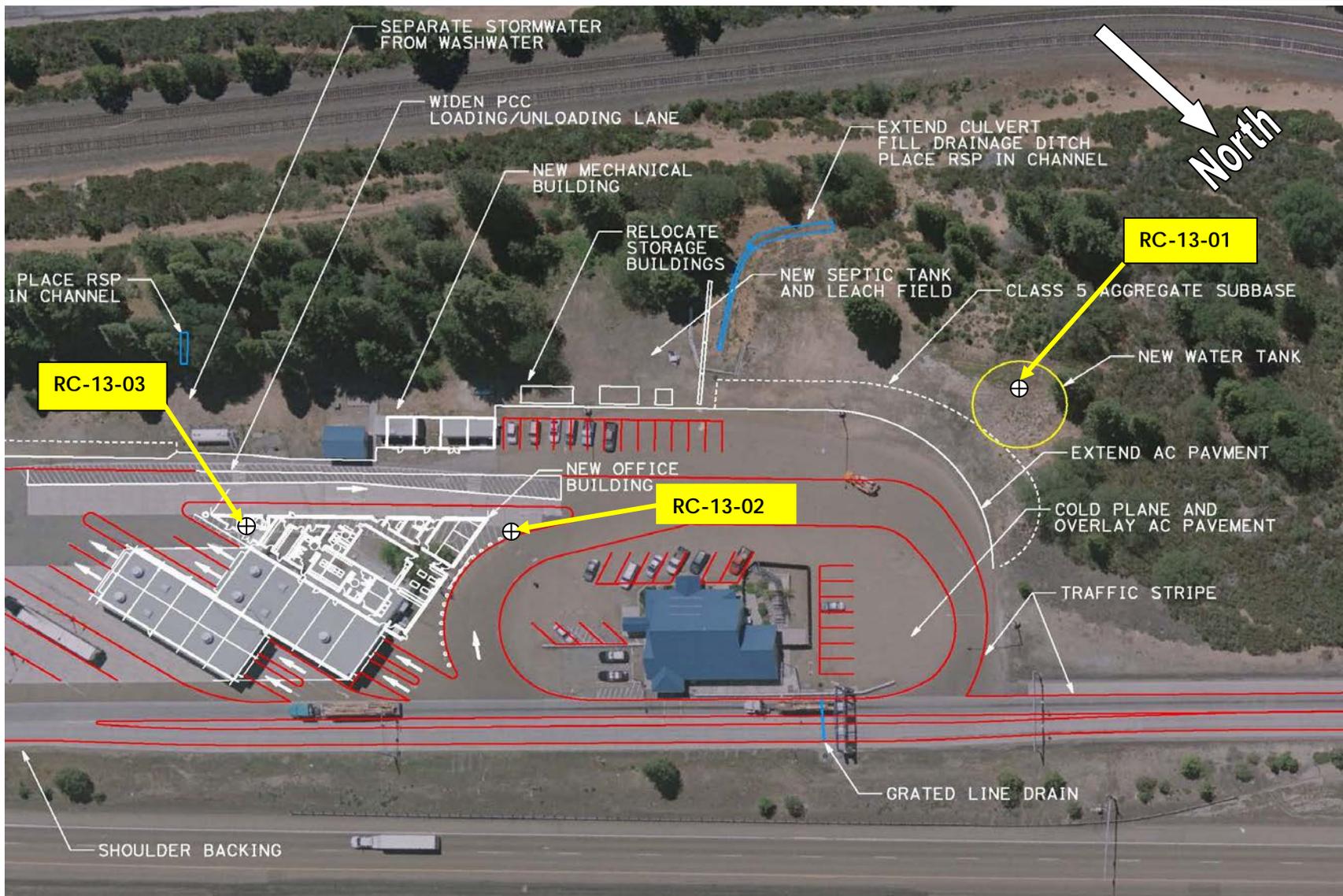
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Geotechnical Design – North

EA: 02-2E800
Date: December 2013

VICINITY MAP

02-SIS-59-PM R7.2
Dunsmuir Grade Truck Inspection Facility Upgrade

Plate No.
1



NO SCALE



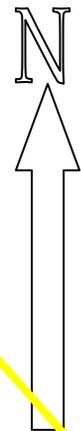
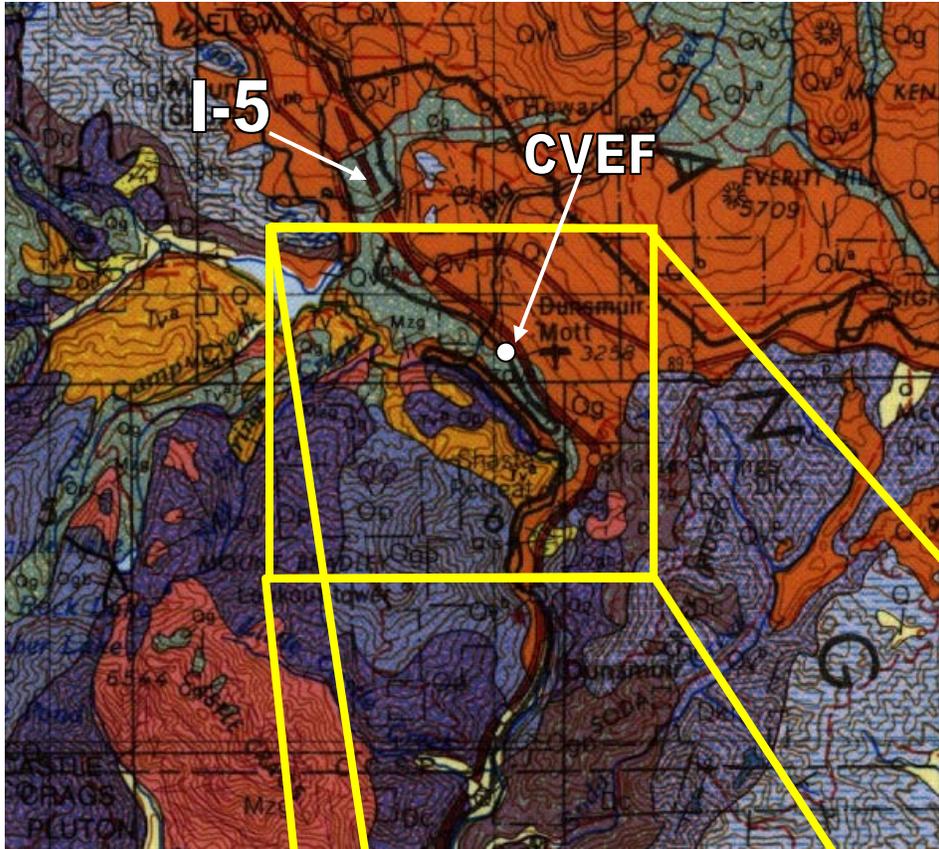
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**Subsurface
 Investigation Plan**

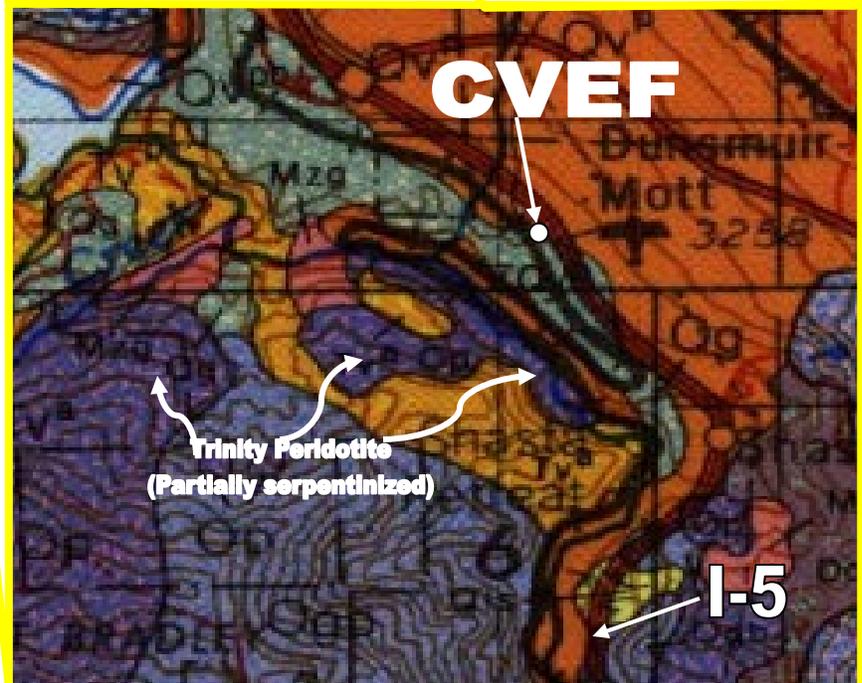
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Plate No.
 2



NO SCALE

See Plate 5B for Explanations



From Wagner, D.L., and Saucedo, G.J., 1987, Geologic map of the Weed quadrangle, California, CDMG, Regional Map 4A, scale 1:250,000



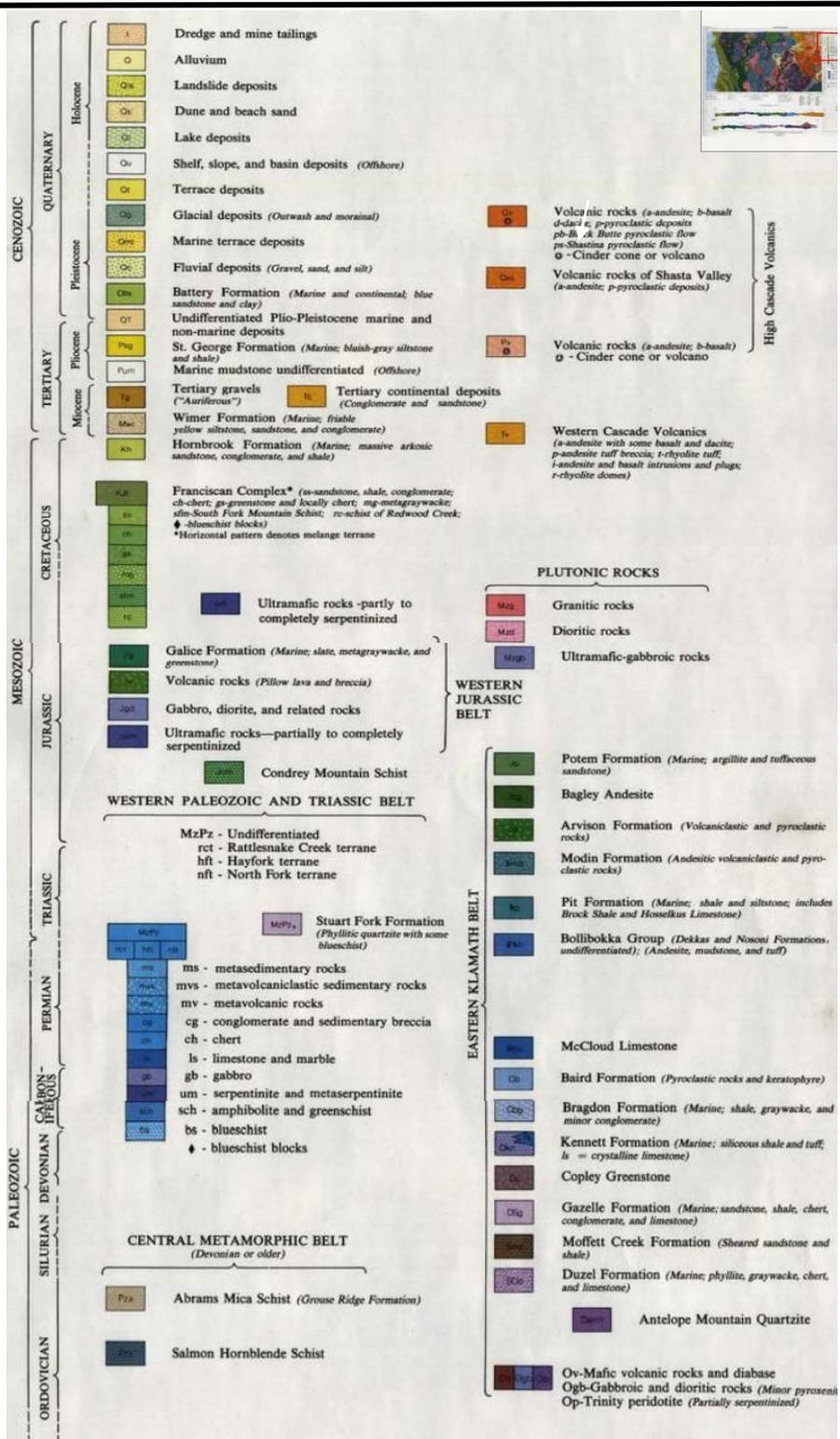
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GEOLOGIC MAP

02-SIS-5-PM R7.4
 Dunsmuir Grade Truck Inspection Facility Upgrade

Plate No.
 3



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 Date: December 2013

**GEOLOGIC MAP
 LEGEND**

02-SIS-5-PM R7.4
 Dunsmuir Grade Truck Inspection Facility Upgrade

Plate No.
 4

MAP PURPOSE

This map shows the areas likely to contain natural occurrences of asbestos in Caltrans District 2. Its purpose is to provide Caltrans personnel with information about areas where naturally occurring asbestos might be encountered during highway construction, routine maintenance, or any operation involving ground disturbance. Natural occurrences of asbestos are more likely to be encountered in, and immediately adjacent to, areas of ultramafic rocks including lamprophyre deposits or soils originating from ultramafic rock sources. The general location of these rocks is shown on the map. While geologic conditions are more likely for asbestos occurrence in or near these areas, its presence is not certain. The only way to establish the presence or absence of asbestos at a specific location is through a detailed site examination by a qualified geologist.

EXPLANATION OF ULTRAMAFIC ROCK UNITS

Ultramafic rocks are dark, peridotite, pyroxenite, and less common in California, hornblende. These igneous rocks contain 90 percent or more of the dark colored iron-magnesium silicate minerals olivine, augite, hypersthene, or less commonly hornblende. Ultramafic rocks form in high temperature environments well below the surface of the earth. By the time they are exposed at the surface by uplift and erosion, the ultramafic rocks may be partially to completely altered to serpentinite, a type of metamorphic rock. Sometimes the metamorphic conditions are right for the formation of chrysotile asbestos or tremolite-actinolite asbestos in bodies of ultramafic rock or along their boundaries.

Note - occurrences of non-ultramafic rock types, such as gabbro or diorite, may be included within some of the ultramafic rock areas shown on this map. Asbestos is much less likely to be associated with these non-ultramafic rock types.

MAP USAGE AND LIMITATIONS

The small scale of this map precludes showing detailed boundaries of ultramafic rock units and small occurrences of ultramafic rocks. It should be used only as a general guide to the presence of ultramafic rocks that may contain asbestos. This map is derived from the California Geological Survey 1:250,000 scale Geological Atlas series maps.

In addition to association with ultramafic rock and serpentinite, asbestos minerals are also known to occur in association with some faults in particular geologic settings, certain non-ultramafic related metamorphic rock types, and magnesium rich carbonate rocks such as dolomite. These asbestos occurrences are much less common and their locations are less well known than for ultramafic rocks. Consequently, such occurrences are not shown on the map.

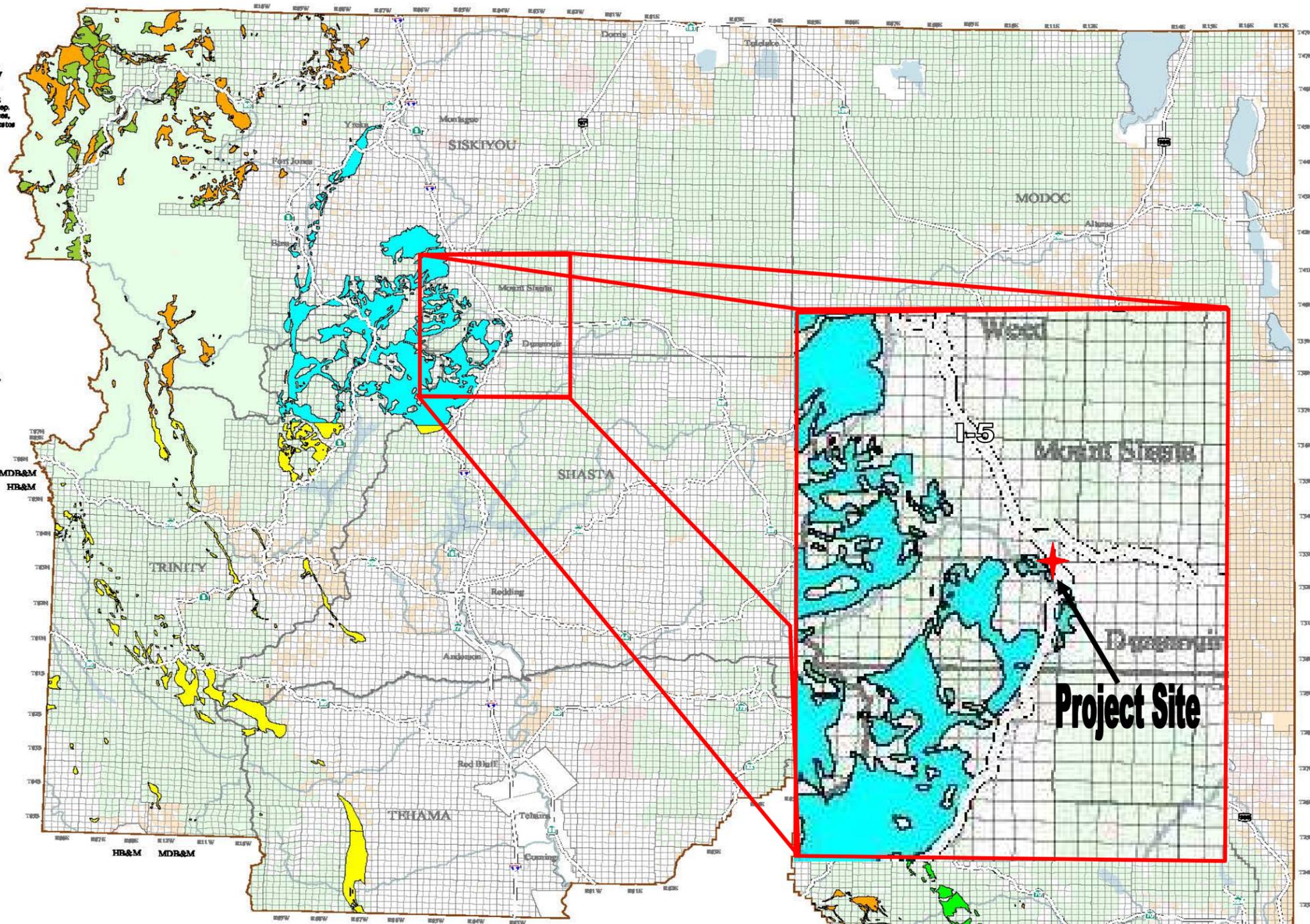
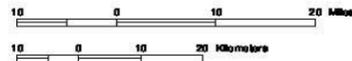
This map should not be used to determine whether bedrock or soil on a particular parcel of land is or adjacent to areas identified as ultramafic rocks contains asbestos. A site-specific investigation would be required to make such a determination.

DEFINITIONS

Asbestos - Asbestos is the generic term for the naturally occurring fibrous (serpentine) varieties of six silicate minerals. These minerals are chrysotile, tremolite (when fibrous), actinolite (when fibrous), crocidolite (fibrous riebeckite), anthophyllite (when fibrous), and amosite (fibrous cummingtonite-grunerite). Chrysotile is the most common asbestos mineral in California and belongs to the serpentine mineral group. The remaining asbestos minerals belong to the amphibole mineral group. Asbestos also refers to an industrial product obtained by mining and processing deposits of the asbestos minerals listed above.

Serpentine - The serpentine group minerals are hydrous magnesium silicate minerals, of which lizardite, antigorite, and chrysotile are most common. Chrysotile forms crystals that are naturally fibrous. These fibers occur in serpentinite in small veins, where the fibers are oriented perpendicular to the vein walls (cross-fiber veins) or parallel to the vein walls (rip-fiber veins). Chrysotile fibers are one type of asbestos. The other serpentine minerals usually do not occur as fibrous crystals and are not asbestos minerals. Although the term serpentine is commonly used to refer to the rock serpentinite, it is actually the name of the group of minerals that makes up the rock serpentinite.

Serpentinite - Serpentinite is a rock consisting almost entirely of one or more serpentine minerals. Serpentinite is not identified as a separate rock unit on this map but is likely to be found within areas of ultramafic rock shown on the map. This rock type has a gray or waxy appearance and may be dark to light green, brown, yellow or white. In addition to serpentine minerals, small amounts of other minerals such as magnetite, chromite, talc, brucite, and tremolite-actinolite may be present. Small amounts of chrysotile asbestos are common in serpentinite because chrysotile is one of the serpentine group minerals. Tremolite-actinolite asbestos (amphibole asbestos) may also occur with serpentinite, but such occurrences are less common than chrysotile asbestos.



Legend:

- District Boundary
- Ogs: Thinly/Patchily - Partially Serpentinized
- Qlc: Quaternary Landslide Deposits
- um: Ultramafic Rocks - Partly to Completely Serpentinized
- dtc: Mesozoic Ultrabasic Igneous Rocks * Older than equivalent to ultramafic
- Psg: Peridotite - Meliocras Patch Zone
- Urban Area
- County Boundary
- Transverse State Highway
- Interstate Highway Shield
- California State Highway Shield
- U.S. Highway Shield
- Major River
- Lake
- Land Ownership:**
- U.S. Forest Service
- Bureau of Land Management
- Other Government (Bureau of Reclamation, State Lands Commission, Fish and Game, Parks and Recreation, Bureau of Indian Affairs, National Park Service)
- Public Land Surveying System (PLSS)

See: NOA_hwy_limits.pdf for tabulated postmile segments of State Highway potentially affected by Naturally Occurring Asbestos.



Data provided by the Department of Conservation, California Geological Survey (CGS) under Interagency Agreement No. 03A0105. Mapping prepared by the Division of Maintenance GIS in coordination with the Division of Environmental Analysis.

Areas Likely to Contain Naturally Occurring Asbestos Caltrans District 2

DISCLAIMER
The State of California (State) and the California Department of Transportation (Department) make no representation or warranty as to the actual presence or absence of naturally occurring asbestos at specific sites within or near the ultramafic rock areas shown on this map. Further, the State and the Department make no representation or warranty regarding the accuracy of the data shown on the map. Neither the State nor the Department shall be liable under any circumstances for any direct, indirect, special, incidental or consequential damages with respect to any claim by any user or any third party on account of or arising from the use of this map.

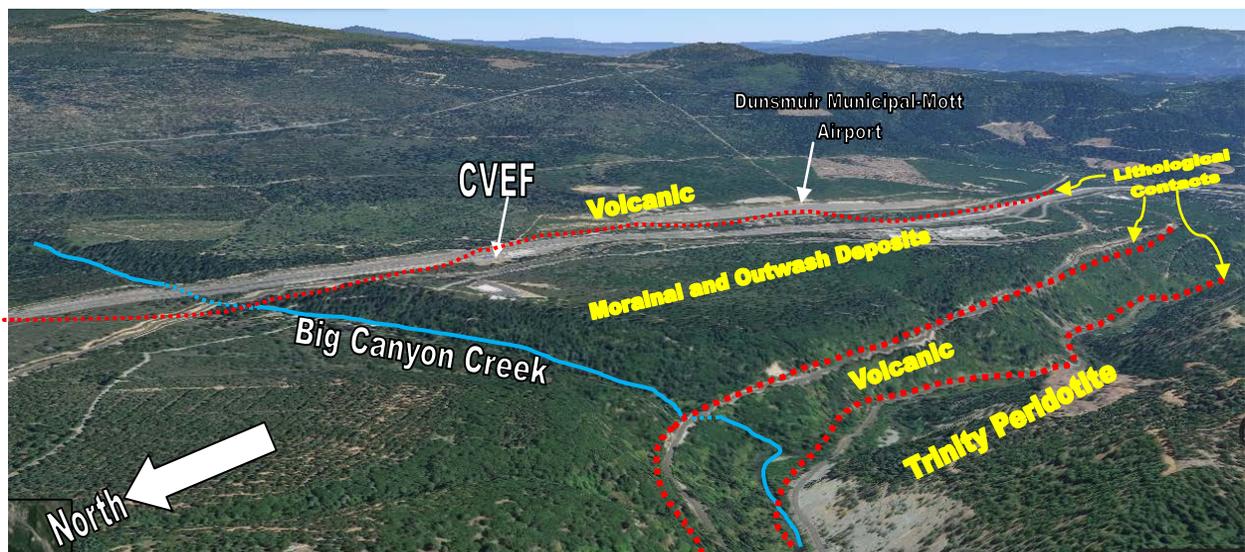
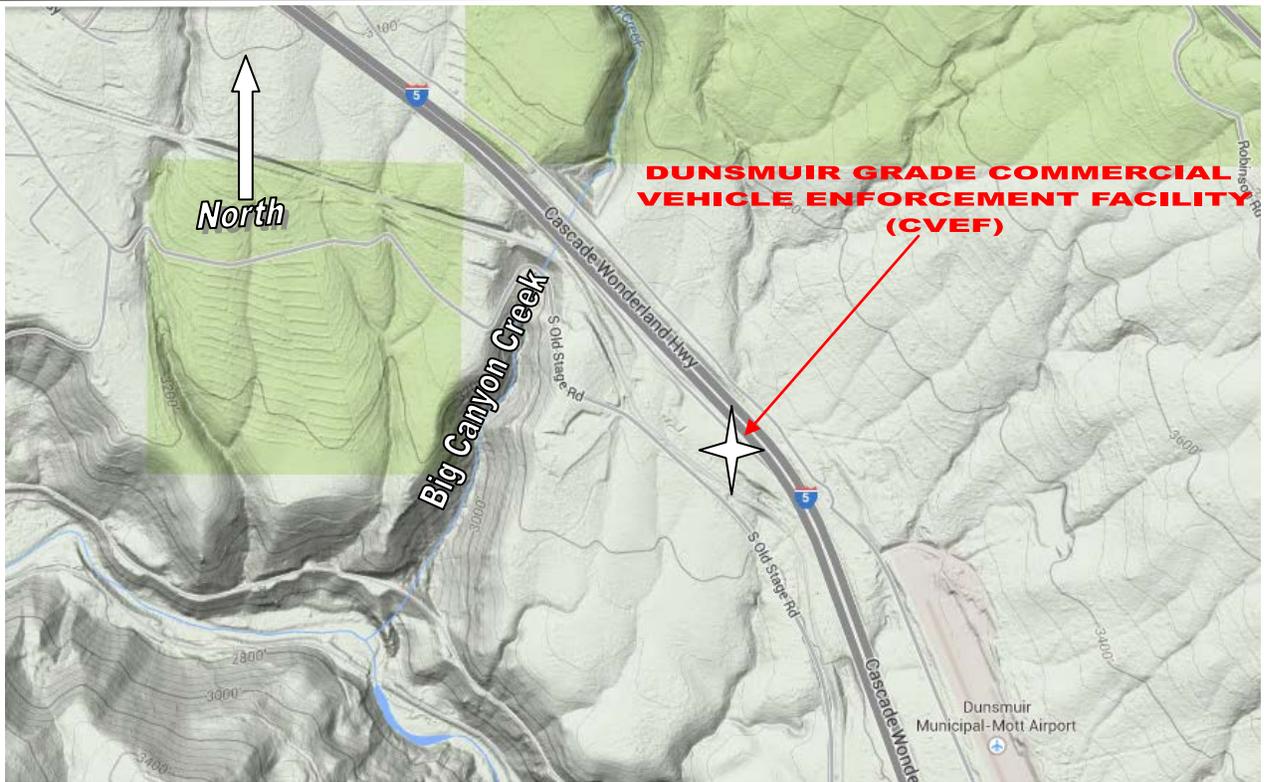


CALTRANS
Division of Engineering Services
Geotechnical Services
Office of Geotechnical Design - North

EA: 02-2E800
Date: December 2013

NATURALLY OCCURRING ASBESTOS PLAN

02-SIS-5-PMR7.4
Dunsmuir Grade Truck Inspection Facility Upgrade



CALTRANS
 Division of Engineering
 Services
 Geotechnical Services
 Geotechnical Design – North

EA: 02-2E800
 Date: December 2013

**Topographic and
 Oblique View**

02-SIS-5-PM R7.4
 Dunsmuir Grade Truck Inspection Facility Upgrade

Plate No.
 6



NO SCALE



CALTRANS
 Division of Engineering Services
 Geotechnical Services
 Geotechnical Design – North

EA: 02-2E800
 Date: December 2013

FAULT MAP

02-SIS-5-PM R7.4
 Dunsmuir Grade Truck Inspection Facility Upgrade

Plate No.
 7

APPENDIX A

Log-Of-Test-Borings (LOTB)

BENCH MARK

CM 6.97
 SUHV 10697
 N 2,346,218.733
 E 6,484,445.724
 Elev 3256.593
 NAVD83

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
06	Fre	180			

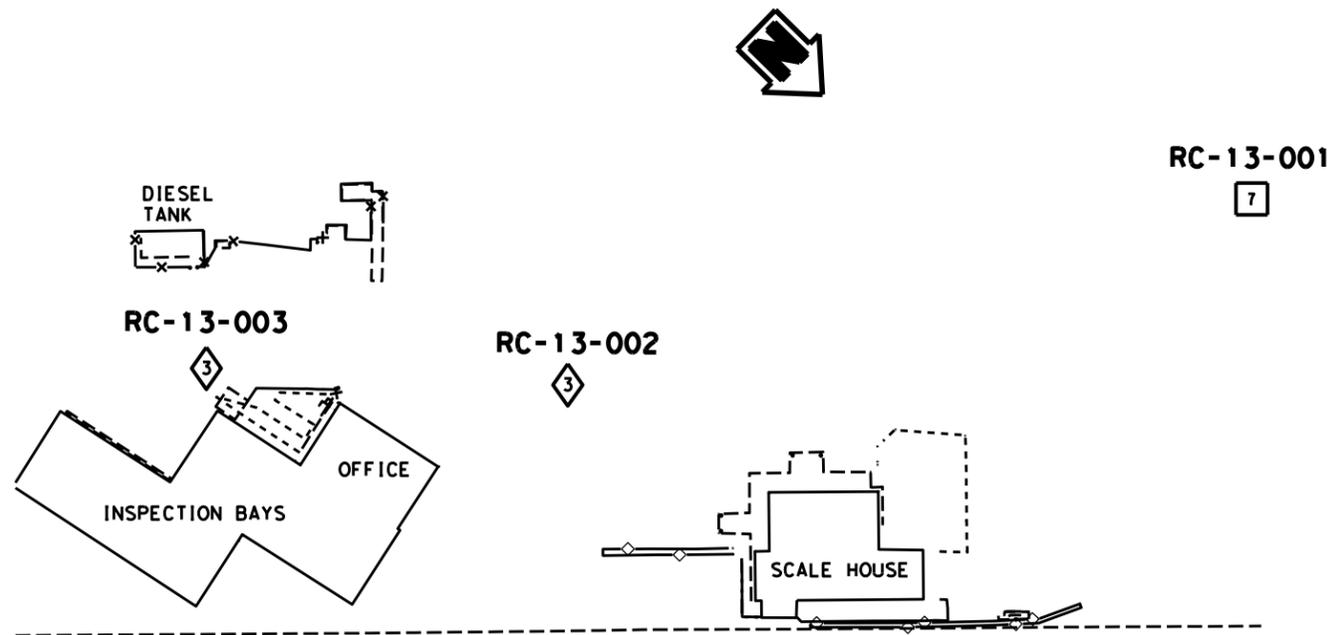
1-2-14

CERTIFIED ENGINEERING GEOLOGIST

Luis Paredes-Mejia
 No. 2329
 Exp. 1-31-14
 CERTIFIED ENGINEERING GEOLOGIST
 STATE OF CALIFORNIA

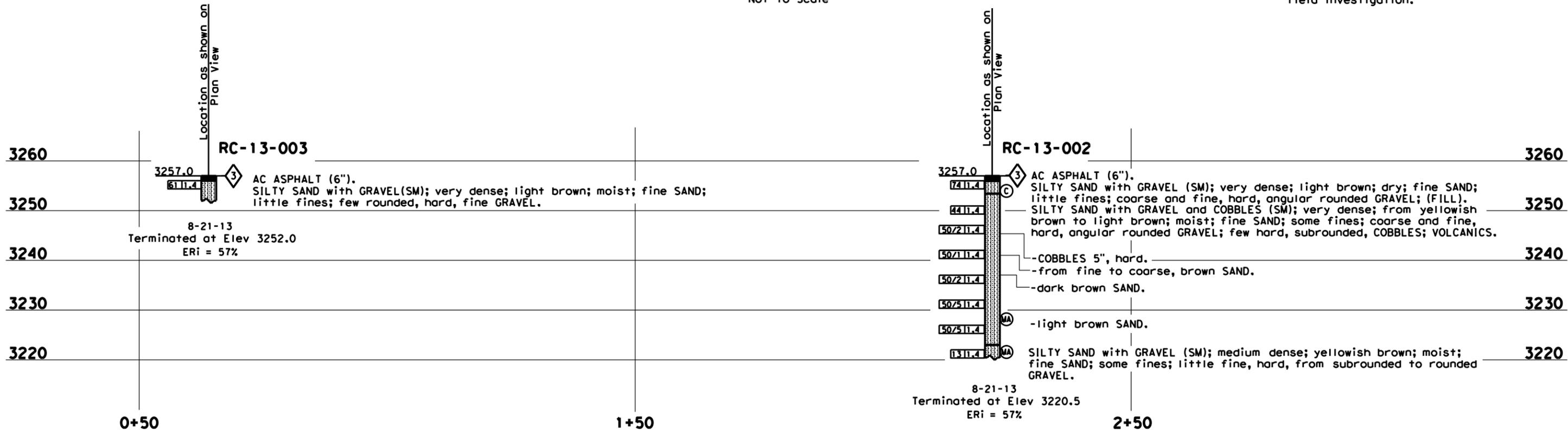
PLANS APPROVAL DATE

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



PLAN
 Not To Scale

Note: No ground water encountered during field investigation.



PROFILE
 Horiz: 1" = 10'
 Vert: 1" = 10'

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
06	Fre	180			

1-2-14
CERTIFIED ENGINEERING GEOLOGIST

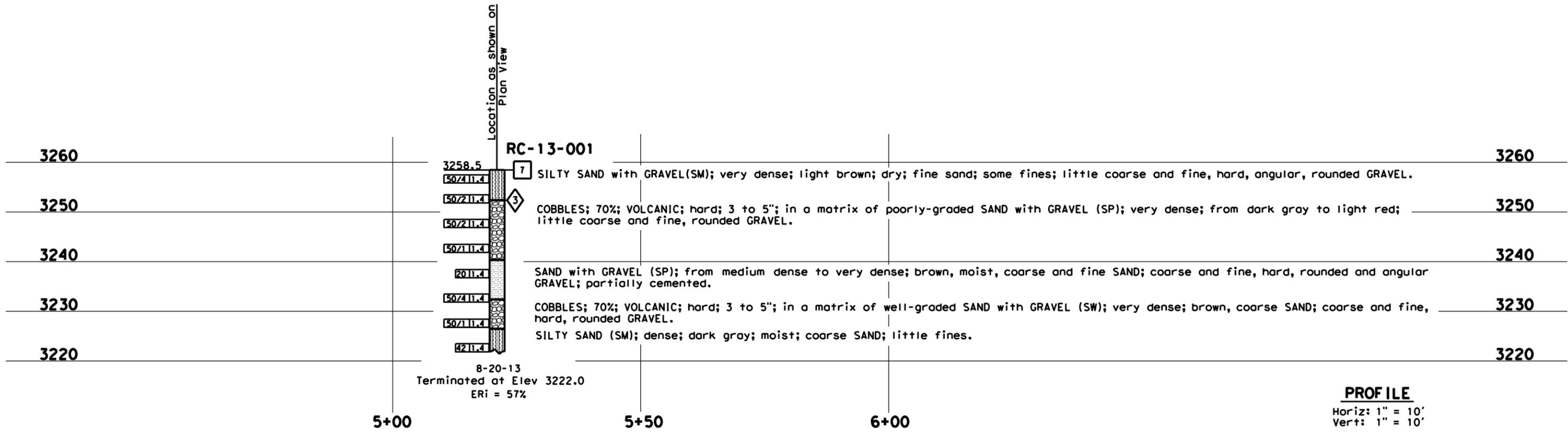
PROFESSIONAL GEOLOGIST
 Luis Paredes-Mejia
 No. 2329
 Exp. 1-31-14
 CERTIFIED ENGINEERING GEOLOGIST
 STATE OF CALIFORNIA

PLANS APPROVAL DATE _____

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

This LOTB sheet was prepared in accordance with the Caltrans Soil & Rock Logging, Classification, & Presentation Manual (2010 Edition).
 See 2010 Standard Plans A10F and A10G for Soil Legend, and A10H for Rock Legend.

FOR PIAN VIEW, SEE
 "LOG OF TEST BORINGS 1 OF 2"



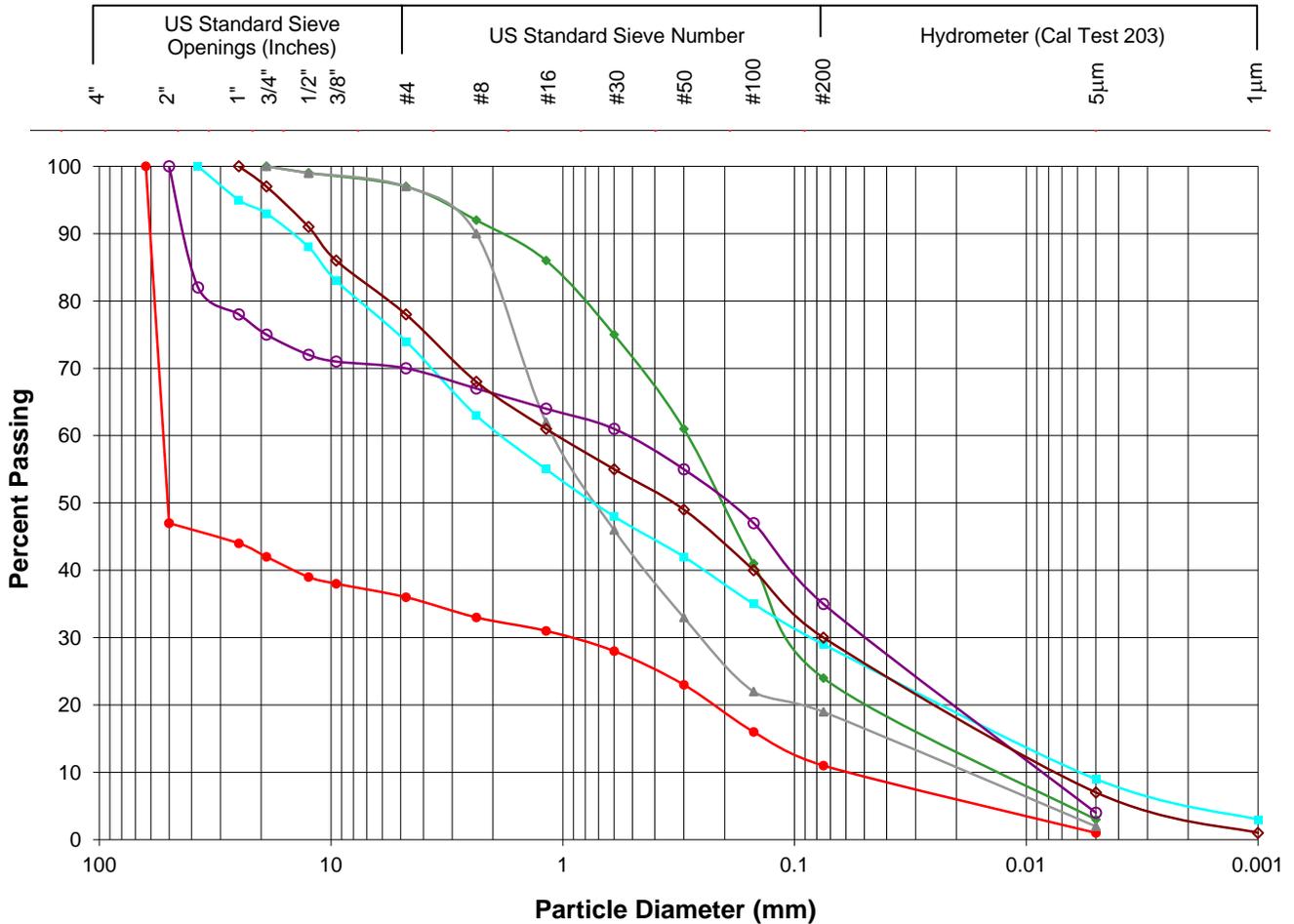
PROFILE
 Horiz: 1" = 10'
 Vert: 1" = 10'

ENGINEERING SERVICES		MATERIALS AND GEOTECHNICAL SERVICES		STATE OF CALIFORNIA	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN	BRIDGE NO. R7.2	DUNSMUIR CHP STATION	
FUNCTIONAL SUPERVISOR NAME: T. Song	DRAWN BY: W. Tang 11/13 CHECKED BY: A. Barrie	FIELD INVESTIGATION BY: L. Paredes-Mejia		DEPARTMENT OF TRANSPORTATION	DESIGN BRANCH X		LOG OF TEST BORINGS 2 OF 2	
005 CIVIL LOG OF TEST BORINGS SHEET				ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	UNIT: 3643 PROJECT NUMBER & PHASE: 02000006031	CONTRACT NO.: 02-2E8001	DISREGARD PRINTS BEARING EARLIER REVISION DATES	
							REVISION DATES	SHEET OF
							12-12-13 12-30-13	X X

APPENDIX B

Laboratory Test Results

Gradation Analysis Test Results



GRAVELS		SANDS			SILT	CLAY
Coarse	Fine	Coarse	Medium	Fine		

Sample ID:	● RC-13-01_05	◆ RC-13-01_10	▲ RC-13-01_16
	■ RC-13-02_1&2	○ RC-13-02_15	◇ RC-13-03_01
	— — —	— + —	— × —



Division of Engineering Service
 Geotechnical Services
 Office of Geotechnical Design - North

Soil Grain Size Test Results	
Dec. 2013	EA: 02-2E800
Dunsmuir Grade Truck Inspection Facility Upgrade	
Plate No. B-1	

Results sent to: LUIS PAREDES

Division of Engineering Services
Materials Engineering and Testing Services
Corrosion and Structural Concrete Field Investigation Branch

Report Date: 10/2/2013
Reported by Michael Mifkovic

CORROSION TEST SUMMARY REPORT - SOIL

EA **02-2E800**

EFIS: **0200000603**

Dist/Co/Rte/PM **02 / SIS /005/R / 7.2 PM**

CORROSION LAB #	TL101 #	BORE #	DEPTH (FT)		MINIMUM RESISTIVITY ¹ (ohm-cm)	pH ¹	CHLORIDE CONTENT ² (ppm)	SULFATE CONTENT ³ (ppm)	IS SAMPLE CORROSIVE?
			START	END					
SOIL SAMPLE FROM: DUNSMUIR CHP STATION (BUILDING)									
CR20130343	C875077	RC-13-002	0	2.5	5164	6.72			NO
SOIL SAMPLE FROM: DUNSMUIR CHP STATION (WATER TANK)									
CR20130342	C875076	RC-13-001	1.4	5	32130	6.56			NO

This site is **not** corrosive to foundation elements (see note below).

Note: For Structural Elements, the Department considers a site corrosive if one or more of the following conditions exist: pH is 5.5 or less, chloride concentration is 500 ppm or greater, sulfate concentration is 2000 ppm or greater. Resistivity is not considered for Structural Elements. MSE backfill shall conform to the requirements of section 47-2.02C Structure Backfill in the 2010 Standard Specifications.

¹CT 643, ²CT 422, ³CT 417

CR20130342 - CR20130343

10/2/2013



CALTRANS
Division of Engineering
Services
Geotechnical Services
Geotechnical Design – North

EA: 02-2E800

Date: November 2013

Corrosion Tests Results

02-SIS-5-PM R7.4
Dunsmuir Grade Track Inspection Facility Upgrade

Plate No.
B-2

INFORMATION HANDOUT

For Contract No. 02-2E8004

At 02-Sis-5-R7.2

Identified by

Project ID 0200000603

MATERIALS INFORMATION

Onsite Review Instructions dated August 18, 2015

Foundation Report dated December 30, 2013

Asbestos and Lead-Containing Paint Survey Report dated February 27, 2014

Asbestos and Lead-Containing Paint Survey Report dated December 29, 2006

Conceptual Construction Sequence, dated January 28, 2015

ASBESTOS AND LEAD-CONTAINING PAINT SURVEY REPORT



PREPARED FOR:

**CALIFORNIA DEPARTMENT OF TRANSPORTATION – DISTRICT 3
ENVIRONMENTAL ENGINEERING OFFICE
703 B STREET
MARYSVILLE, CALIFORNIA 95901**



PREPARED BY:

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



**GEOCON PROJECT NO. S9805-01-10
TASK ORDER NO. 10, EA 02-2E8001
CONTRACT NO. 03A2132
E-FIS 02 0000 0603.1**

FEBRUARY 2014



Project No. S9805-01-10
February 27, 2014

Rajive Chadha, Task Order Manager
Caltrans District 3
Environmental Engineering Office
703 B Street
Marysville, California 95901

Subject: ASBESTOS AND LEAD-CONTAINING PAINT SURVEY REPORT
DUNSMUIR TRUCK INSPECTION FACILITY
SISKIYOU COUNTY, CALIFORNIA
CONTRACT NO. 03A2132, E-FIS 02 0000 0603.1 (EA 02-2E8001)
TASK ORDER NO. 10, 02-SIS-5

Dear Mr. Chadha:

In accordance with California Department of Transportation (Caltrans) Contract No. 03A2132 and Task Order (TO) No. 10, we have performed an asbestos and lead-containing paint (LCP) survey of the Dunsmuir Truck Inspection Facility (TIF) in Siskiyou County, California. The scope of services included surveying the TIF main office building for suspect asbestos-containing materials (ACM) and lead-containing paint (LCP), collecting bulk ACM and paint samples, and submitting the samples to laboratories for analyses.

PROJECT DESCRIPTION

The project consists of the main office building of the Dunsmuir TIF on Interstate 5 in Siskiyou County, California. We performed asbestos and LCP survey activities at the project location. The project location is depicted on the Vicinity Map, Figure 1, and Site Plan, Figure 2.

GENERAL OBJECTIVES

The scope of services outlined in TO-10 included the determination of the presence and quantity of asbestos and LCP at the project location prior to various improvements. Assuming that no asbestos is added during future operations, our survey would satisfy National Emissions Standards for Hazardous Air Pollutants (NESHAP) requirements. 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 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 §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 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 §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 paint component would require waste characterization and appropriate disposal. Intact paint 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 representative total lead content equals or exceeds the respective Total Threshold Limit Concentration (TTLC) of 1,000 milligrams per kilogram (mg/kg); or 2) the representative 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 representative 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 representative 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 remove or cut through paint coatings during demolition. Dust containing hazardous concentrations of lead may be generated during scraping or cutting materials coated with paint. Torching of these materials may produce hazardous fumes. Therefore, air monitoring and/or respiratory protection may be required during the demolition of materials coated with lead-containing paint. Guidelines regarding regulatory provisions for construction work where workers may be exposed to lead are presented in Title 8, CCR §1532.1.

Previous Survey Activities and Architectural Drawings

We reviewed our report titled, *Asbestos and Lead-Containing Paint Survey, Dunsmuir Truck Inspection Facility, Bays 1 through 4, Siskiyou County, California*, dated December 29, 2006 (2006 Survey Report). Our 2006 Survey Report was prepared for piping systems and roofing at the TIF truck bays located adjacent to the main office building at the project location. Chrysotile and amosite asbestos were detected in samples of thermal system insulation (TSI) on piping and fittings at concentrations ranging from 3 to 15%. Lead was detected in samples of interior and exterior paint at the TIF truck bays.

Architectural plans for the Site were not available for our review.

SCOPE OF SERVICES

Mr. Chris Giuntoli, a California-Certified Asbestos Consultant (CAC), certification No. 02-3163 (expiration June 19, 2014), and Certified Lead Paint Inspector/Assessor with the California Department of Public Health (DPH), certification number I-5502 (expiration June 14, 2014), performed the asbestos and LCP survey at the project location on December 4, 2013.

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 40 bulk asbestos samples representing 18 suspect materials were collected.

Our procedures for inspection and sampling in accordance with TO-10 are discussed below:

- Collected bulk asbestos samples after first wetting friable 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 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 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 ten-day turnaround time.

Approximate sample locations are presented on Figure 2. Materials represented by the samples collected are shown in the attached photographs.

Lead Paint

A total of two bulk paint samples were collected from suspect LCP observed at the project location. Our sampling procedures in accordance with TO-10 are discussed below:

- Collected bulk samples of suspect LCP using techniques presented in HUD guidelines. In addition, the painted areas were evaluated for evidence of deterioration such as flaking or cracking.
- Relinquished the bulk LCP samples under chain-of-custody protocol to Advanced Technology Laboratories (ATL), a California-licensed and Caltrans-approved subcontractor, for lead analysis in accordance with EPA Test Method 6010B. ATL is accredited by the DPH for lead analysis. The laboratory analyses were requested on a seven-day turnaround time.

Approximate sample locations are presented on Figure 2. Materials represented by the samples collected are shown in the attached photographs.

INVESTIGATIVE RESULTS

Asbestos

Chrysotile asbestos at a concentration of 20% was detected in samples 2A/B and 3A/B representing approximately 25 square feet of nonfriable gray, black, and white asphalt roofing mastic used on the roof.

Chrysotile asbestos at a concentration of 80% was detected in sample 5A representing approximately 2 square feet of friable boiler gasket material in the boiler room.

Chrysotile asbestos at a concentration of 2% was detected in sample 6A representing friable joint compound and wall texture applied to approximately 1,300 square feet of gypsum board wall system in the boiler room. Separate point count analyses of the gypsum board/joint compound composite and wall texture indicated chrysotile asbestos at a concentration of <0.25%.

Chrysotile asbestos at a concentration of 2% was detected in sample 9A representing approximately 1,200 square feet of nonfriable black mastic associated with white 12-inch by 12-inch resilient floor tile over tan floor tile (multi-layer flooring) in the offices.

Chrysotile asbestos at a concentration of 4% was detected in sample 12A representing approximately 180 square feet of nonfriable black mastic associated with brown resilient sheet flooring in the offices.

Chrysotile asbestos at a concentration of less than 2% was detected in sample 13A representing friable joint compound applied to approximately 3,200 square feet of gypsum board wall system in the offices. Point count analysis of the gypsum board/joint compound composite sample indicated chrysotile asbestos at a concentration of <0.25%.

Chrysotile asbestos at a concentration of 3% was detected in sample 16A representing approximately 120 square feet of nonfriable black mastic associated with white 12-inch by 12-inch resilient floor tile in the exterior restrooms.

Chrysotile asbestos at a concentration of 25% was detected in sample 18A representing approximately 120 linear feet of friable 2-inch-diameter TSI on piping located in the boiler room wall cavities. The TSI is also likely present in wall and ceiling cavities in the office area. TSI on approximately pipe fittings (7 linear feet) in the wall and ceiling cavities is assumed ACM.

No asbestos was detected in samples of the remaining suspect materials collected during our survey. TSI suspected from the boiler room ceiling connecting to the truck bays was observed to be non-suspect yellow fiberglass insulation. Boiler room fire door insulating material was observed to be non-suspect yellow foam insulation.

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 EMSL laboratory report and chain-of-custody documentation are attached.

Polarized Light Microscopy (PLM) - EPA Test Method 600/R-93/116				
Sample Nos.	Description of Material	Approximate Quantity	Friable	Asbestos Content
1A and 1B	Asphalt roofing	NA	NA	ND
2A and 2B	Gray roof mastic	15 square feet	No	20%
3A and 3B	Black and white roof mastic	10 square feet	No	20%
4A through 4C	Boiler insulation (boiler room)	NA	NA	ND
5A and 5B	Boiler gasket (boiler room)	2 square feet	Yes	80%
6A and 6B	Gypsum board wall system (boiler room)	1,300 square feet	Yes	<0.25%*
7A and 7B	Concrete (foundation)	NA	NA	ND
8A and 8C	Paint	NA	NA	ND
9A and 9B	White 12-inch by 12-inch resilient floor tile over tan floor tile with black mastic	1,200 square feet	No	ND – Tile 2% - Black mastic
10A and 10B	Brown baseboard with mastic	NA	NA	ND
11A and 11B	Blue resilient sheet flooring with mastic	NA	NA	ND
12A and 12B	Brown resilient sheet flooring with mastic	180 square feet	No	ND – Sheet flooring 4% - Mastic
13A through 13C	Gypsum board wall system (offices)	3,200 square feet	Yes	<0.25%*
14A through 14C	Wall texture (offices)	NA	NA	ND

Polarized Light Microscopy (PLM) - EPA Test Method 600/R-93/116				
Sample Nos.	Description of Material	Approximate Quantity	Friable	Asbestos Content
15A and 15B	White 12-inch by 12-inch acoustical ceiling tile with brown mastic (offices)	NA	NA	ND
16A and 16B	White 12-inch by 12-inch resilient floor tile with mastic (exterior restrooms)	120 square feet	No	ND – Tile 3% - Mastic
17A and 17B	Wall panel mastic (interior restrooms)	NA	NA	ND
18A through 18C	Thermal system insulation (boiler room wall cavities)	120 linear feet	Yes	25%

NA = Not applicable (no asbestos detected)

ND = Not detected

* Material analyzed using PLM point count methodology (400 points)

Lead Paint

Sample P1 representing approximately 10 square feet of deteriorated dark gray trim exhibited a total lead concentration of 1,200 mg/kg and a TCLP lead concentration of 0.98 mg/l.

Sample P2 representing intact beige exterior paint exhibited a total lead concentration of 9.4 mg/kg.

Sample identification numbers, descriptions, peeling and flaking quantities, and a summary of the analytical laboratory test results for paint are summarized below. Reproductions of the ATL laboratory reports and chain-of-custody documentation are attached.

Total and Soluble Lead				
Sample No.	Paint Description	Approximate Quantity Peeling/Flaking	Total Lead (mg/kg)	TCLP Lead (mg/l)
P1	Dark gray trim	10 square feet	1,200	0.98
P2	Beige exterior paint	Intact	9.4	---

mg/kg = milligrams per kilogram (EPA Test Method 6010B)

mg/l = milligrams per liter

TCLP = Toxicity Characteristic Leaching Procedure (EPA Test Method 7420)

--- = Not analyzed

RECOMMENDATIONS

Asbestos

NESHAP regulations require that asbestos-containing boiler gasket material and TSI on piping and fittings (friable RACM) identified during our survey be removed prior to renovation/demolition.

NESHAP regulations do not require that asbestos-containing floor and roof mastics (Category I nonfriable/nonhazardous materials) or materials containing 1% or less asbestos (i.e., gypsum board/joint compound wall systems and wall texture) identified during our survey be removed prior to renovation/demolition or be treated as hazardous waste. However, activities causing *disturbance* of these materials is still covered by the Cal/OSHA asbestos standard (Title 8, CCR §1529). We recommend that a licensed and certified asbestos abatement contractor perform activities that would disturb the asbestos-containing materials. Contractors are responsible for informing the landfill of the contractor's intent to dispose of asbestos 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) 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 by contractor[s] during subsequent abatement activities). Personnel not trained for asbestos work should be instructed not to disturb asbestos.

Written notification to 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) and for specific quantities of RACM. 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.

Lead Paint

Deteriorated gray trim sampled during our survey would be classified as California hazardous based on lead content. As such, the deteriorated paint must be removed and disposed of prior to renovation, demolition, or other activities that would disturb the paint.

Intact beige exterior paint sampled during our survey would not be classified as California or Federal hazardous.

Contractors removing deteriorated LCP should be required to use personnel who have lead-related construction certification as supervisors or workers, as appropriate, from the California DPH for LCP removal work. Loose and peeling/flaking LCP require removal prior to demolition for waste segregation purposes: to separate potentially hazardous waste (Category III concentrated lead such as loose paint, paint sludge, vacuum debris, and vacuum filters) from non-hazardous demolition debris (Category II intact lead-painted architectural components such as doors, windows, framework, cladding, and trim). Category I waste is low lead waste (typically non-hazardous) such as construction materials, filtered wash water, and plastic sheeting. Contractors are responsible for informing the landfill of the contractor's intent to dispose of RCRA waste, California hazardous waste, and/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.

We recommend that all paints at the project location 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 LCP sample results and the fact that lead was a common ingredient of paints manufactured before 1978 and is still an ingredient of some paints. In accordance with Title 8, CCR §1532.1(p), written notification to the nearest Cal/OSHA district office is required at least 24 hours prior to certain lead-related work. 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.

REPORT LIMITATIONS

The 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 the structure identified above. 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 structure 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.

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

Sincerely,

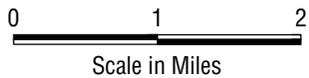
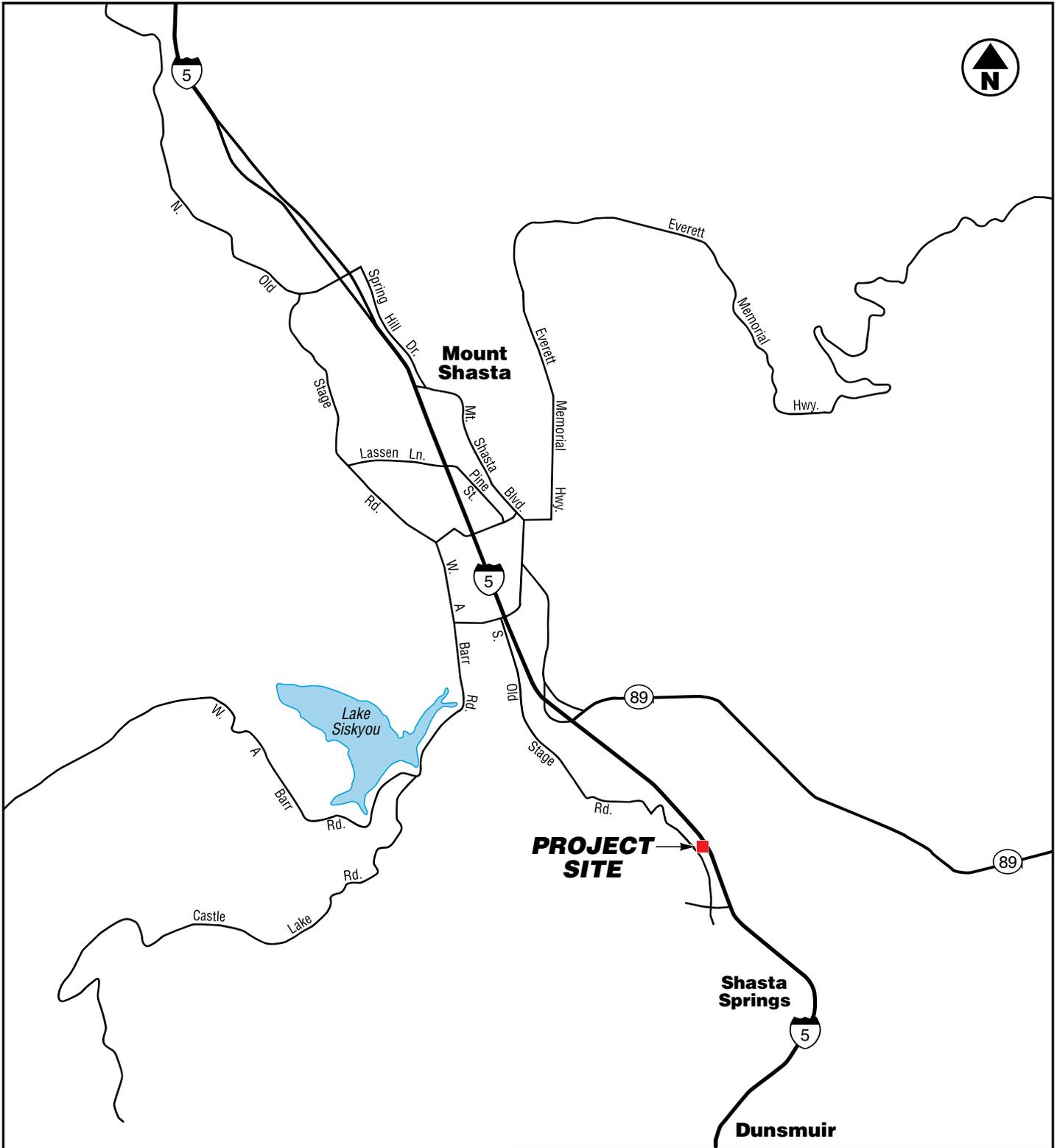
GEOCON CONSULTANTS INC.


Chris Giuntoli, CAC No. 02-3163
Senior Project Scientist


John E. Juhrend, PE, CEG
Principal/Senior Engineer

(2 + 2 CDs) Addressee

Attachments: Figure 1, Vicinity Map
 Figure 2, Site Plan
 Site Photographs (1 through 12)
 Analytical Laboratory Reports and Chain-of-custody Documentation



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Dunsmuir Truck Inspection Facility

Interstate 5
Siskiyou County, California

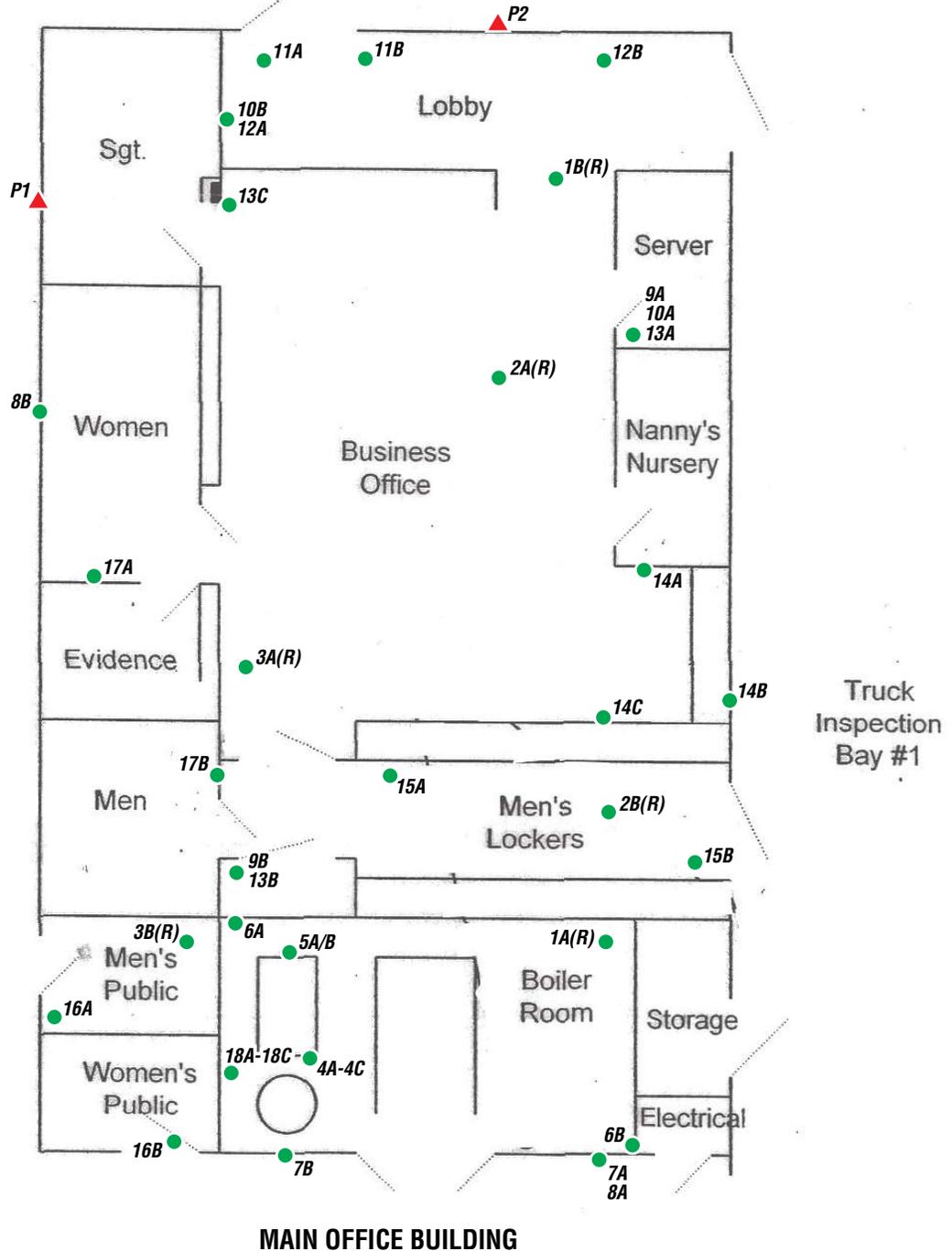
VICINITY MAP

GEOCON Proj. No. S9805-01-10

Task Order No. 10

February 2014

Figure 1



MAIN OFFICE BUILDING

LEGEND:

- Approximate Asbestos Sample Location
- ▲ Approximate Paint Sample Location
- (R) Roof



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SITE PLAN

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Figure 2



Photo 1 – Dunsmuir Truck Inspection Facility Main Office in Siskiyou County, California



Photo 2 – Office roof and asbestos-containing roof mastic



Photo 3 – Asbestos-containing boiler gasket material, boiler room



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PHOTOGRAPHS 1, 2, & 3

Dunsmuir Truck Inspection Facility
Siskiyou County, California

S9805-01-10

February 2014



Photo 4 – Non-suspect yellow fiberglass thermal system insulation and asbestos-containing gypsum board wall system, boiler room



Photo 5 – White 12-inch by 12-inch resilient floor tile with asbestos-containing mastic, offices



Photo 6 – Brown and blue resilient sheet flooring, offices



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PHOTOGRAPHS 4, 5, & 6

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Photo 7 – 12-inch by 12-inch acoustical ceiling tiles and asbestos-containing gypsum board wall system, offices



Photo 8 – Wall texture and asbestos-containing gypsum board wall system, offices



Photo 9 – White 12-inch by 12-inch resilient floor tiles with asbestos-containing mastic, exterior restrooms

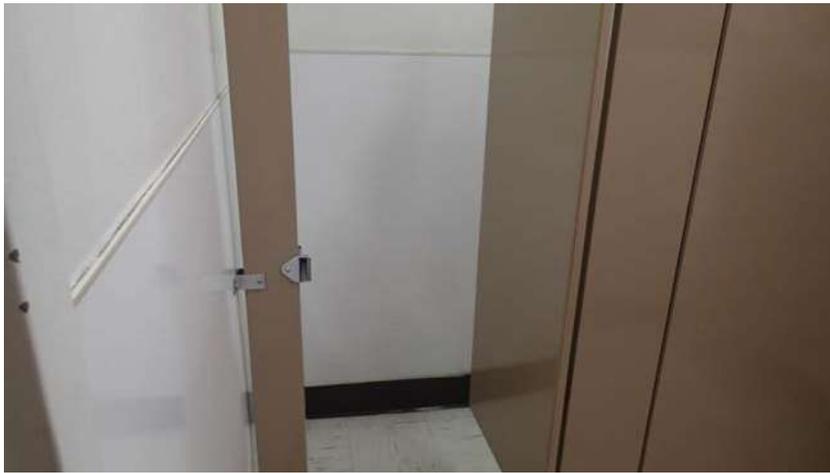


Photo 10 – Wall panel mastic, office restrooms



Photo 11 – Asbestos-containing thermal system insulation, boiler room and office wall and ceiling cavities



Photo 12 – Exterior wall and trim paint



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PHOTOGRAPHS 10, 11, & 12

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Livermore, CA 94550

Project: 59805-01-10 TO-10

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

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
TIF-1A-Shingle <i>091319346-0001</i>	ROOF	Black Fibrous Homogeneous	20% Glass	80% Non-fibrous (other)	None Detected
TIF-1A-Felt <i>091319346-0001A</i>	ROOF	Black Fibrous Homogeneous	70% Glass	30% Non-fibrous (other)	None Detected
TIF-1A-Tar <i>091319346-0001B</i>	ROOF	Black Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
TIF-1A-Insulation <i>091319346-0001C</i>	ROOF	Yellow Fibrous Homogeneous	98% Glass	2% Non-fibrous (other)	None Detected
TIF-1A-Felt <i>091319346-0001D</i>	ROOF	Black Fibrous Homogeneous	80% Cellulose	20% Non-fibrous (other)	None Detected
TIF-1B-Shingle <i>091319346-0002</i>	ROOF	Black Fibrous Homogeneous	20% Glass	80% Non-fibrous (other)	None Detected
TIF-1B-Felt <i>091319346-0002A</i>	ROOF	Black Fibrous Homogeneous	70% Glass	30% Non-fibrous (other)	None Detected
TIF-1B-Tar <i>091319346-0002B</i>	ROOF	Black Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected

Analyst(s)

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 Rui Cindy Geng (40)

Baojia Ke, Laboratory Manager
 or other approved signatory

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Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
TIF-1B-Insulation <i>091319346-0002C</i>	ROOF	Yellow Fibrous Homogeneous	98% Glass	2% Non-fibrous (other)	None Detected
TIF-1B-Felt <i>091319346-0002D</i>	ROOF	Black Fibrous Homogeneous	80% Cellulose	20% Non-fibrous (other)	None Detected
TIF-2A Mastic <i>091319346-0003</i>	ROOF	Gray Non-Fibrous Homogeneous	30% Cellulose	70% Non-fibrous (other)	None Detected
TIF-2B Mastic <i>091319346-0004</i>	ROOF	Black Fibrous Homogeneous		80% Non-fibrous (other)	20% Chrysotile
TIF-3A Mastic <i>091319346-0005</i>		White/Black Fibrous Homogeneous		80% Non-fibrous (other)	20% Chrysotile
TIF-3B Mastic <i>091319346-0006</i>					Stop Positive (Not Analyzed)
TIF-4A Insulation <i>091319346-0007</i>		White Fibrous Homogeneous	95% Glass	5% Non-fibrous (other)	None Detected
TIF-4B Insulation <i>091319346-0008</i>		White Fibrous Homogeneous	95% Glass	5% Non-fibrous (other)	None Detected
TIF-4C Insulation <i>091319346-0009</i>		White Fibrous Homogeneous	95% Glass	5% Non-fibrous (other)	None Detected

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

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
TIF-5A Gasket <i>091319346-0010</i>		White Fibrous Homogeneous		20% Non-fibrous (other)	80% Chrysotile
TIF-5B Gasket <i>091319346-0011</i>					Stop Positive (Not Analyzed)
TIF-6A-Gypsum Board <i>091319346-0012</i>		Brown/White Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (other)	None Detected
TIF-6A-Joint Compound <i>091319346-0012A</i>		Tan Non-Fibrous Homogeneous		98% Non-fibrous (other)	2% Chrysotile
TIF-6A-Texture <i>091319346-0012B</i>		Tan Non-Fibrous Homogeneous		98% Non-fibrous (other)	2% Chrysotile
TIF-6B -Gypsum Board/Joint Compound <i>091319346-0013</i>					Stop Positive (Not Analyzed)
TIF-7A Concrete <i>091319346-0014</i>		Gray Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
TIF-7B Concrete <i>091319346-0015</i>		Gray Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected

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Project: 59805-01-10 TO-10	

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

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
TIF-8A Paint <i>091319346-0016</i>		Various Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
TIF-8B Paint <i>091319346-0017</i>		Various Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
TIF-9A-Floor Tile <i>091319346-0018</i>	FLOOR	White Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
TIF-9A-Mastic <i>091319346-0018A</i>	FLOOR	Yellow Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
TIF-9A-Floor Tile <i>091319346-0018B</i>	FLOOR	Tan Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
TIF-9A-Mastic <i>091319346-0018C</i>	FLOOR	Black Non-Fibrous Homogeneous		98% Non-fibrous (other)	2% Chrysotile
TIF-9B Floor Tile/Mastic <i>091319346-0019</i>	FLOOR				Stop Positive (Not Analyzed)
TIF-10A-Baseboard <i>091319346-0020</i>	BASEBOARD	Brown Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected

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Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
TIF-10A-Mastic 091319346-0020A	BASEBOARD	White Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
TIF-10A-Sheet Flooring 091319346-0020B	BASEBOARD	Brown Fibrous Homogeneous	98% Cellulose	2% Non-fibrous (other)	None Detected
TIF-10A-Mastic 091319346-0020C	BASEBOARD	Tan Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
TIF-10B-Baseboard 091319346-0021	BASEBOARD	Brown Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
TIF-10B-Mastic 091319346-0021A	BASEBOARD	Tan Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
TIF-11A-Baseboard 091319346-0022	FLOOR	Green Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
TIF-11A-Mastic 091319346-0022A	FLOOR	White Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
TIF-11A-Leveler 091319346-0022B	FLOOR	White Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected

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Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
TIF-11B-Baseboard <i>091319346-0023</i>	FLOOR	Green Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
TIF-11B-Mastic <i>091319346-0023A</i>	FLOOR	White Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
TIF-11B-Leveler <i>091319346-0023B</i>	FLOOR	White Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
TIF-12A-Sheet Flooring <i>091319346-0024</i>	FLOOR	Brown Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
TIF-12A-Mastic <i>091319346-0024A</i>	FLOOR	Brown/Grayish Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
TIF-12B-Sheet Flooring <i>091319346-0025</i>	FLOOR	Brown Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
Material in sample bag may differ from that of the homogeneous group.					
TIF-12B-Mastic 1 <i>091319346-0025A</i>	FLOOR	Black Non-Fibrous Homogeneous		96% Non-fibrous (other)	4% Chrysotile
TIF-12B-Mastic 2 <i>091319346-0025B</i>	FLOOR	Tan Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected

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			% Fibrous	% Non-Fibrous	% Type
TIF-13A-Gypsum Board <i>091319346-0026</i>		White Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (other)	None Detected
TIF-13A-Joint Compound <i>091319346-0026A</i>		White Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
TIF-13B-Gypsum Board <i>091319346-0027</i>		White Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (other)	None Detected
TIF-13B-Joint Compound <i>091319346-0027A</i>		Tan/White Non-Fibrous Homogeneous		98% Non-fibrous (other)	2% Chrysotile
TIF-13C-Gypsum Board <i>091319346-0028</i>		White Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (other)	None Detected
TIF-13C-Joint Compound <i>091319346-0028A</i>		White Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
TIF-14A-Texture <i>091319346-0029</i>	WALL	White Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected

Analyst(s) _____
 Matthew Batongbacal (27)
 Rui Cindy Geng (40)

Baojia Ke, Laboratory Manager
 or other approved signatory

EMSL maintains liability limited to cost of analysis. This report relates only to the samples reported and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. Interpretation and use of test results are the responsibility of the client. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST or any agency of the federal government. Non-friable organically bound materials present a problem matrix and therefore EMSL recommends gravimetric reduction prior to analysis. Samples received in good condition unless otherwise noted. Estimated accuracy, precision and uncertainty data available upon request. Unless requested by the client, building materials manufactured with multiple layers (i.e. linoleum, wallboard, etc.) are reported as a single sample. Reporting limit is 1%
 Samples analyzed by EMSL Analytical, Inc San Leandro, CA NVLAP Lab Code 101048-3, WA C884

Initial report from 12/22/2013 06:51:29



EMSL Analytical, Inc

2235 Polvorosa Ave , Suite 230, San Leandro, CA 94577

Phone/Fax: (510) 895-3675 / (510) 895-3680

<http://www.EMSL.com>

sanleandrolab@emsl.com

EMSL Order:	091319346
CustomerID:	GECN21
CustomerPO:	59805-01-10
ProjectID:	

Attn: **Chris Giuntoli**
Geocon Consultants, Inc.
6671 Brisa Street

Phone: (925) 371-5900
 Fax: (925) 371-5915
 Received: 12/07/13 10:30 AM
 Analysis Date: 12/22/2013
 Collected: 12/4/2013

Livermore, CA 94550

Project: 59805-01-10 TO-10

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

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
TIF-14B-Texture <i>091319346-0030</i>	WALL	White Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
TIF-14C-Texture <i>091319346-0031</i>	WALL	White Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
TIF-15A-Acoustical Ceiling Tile <i>091319346-0032</i>	CEILING	Gray/White Fibrous Homogeneous	10% Cellulose 70% Min. Wool	20% Non-fibrous (other)	None Detected
TIF-15A-Mastic <i>091319346-0032A</i>	CEILING	Brown Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
TIF-15B-Acoustical Ceiling Tile <i>091319346-0033</i>	CEILING	Gray/White Fibrous Homogeneous	10% Cellulose 70% Min. Wool	20% Non-fibrous (other)	None Detected
TIF-15B-Mastic <i>091319346-0033A</i>	CEILING	Brown Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
TIF-16A-Floor Tile <i>091319346-0034</i>	FLOOR	White Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
TIF-16A-Mastic 1 <i>091319346-0034A</i>	FLOOR	Black Non-Fibrous Homogeneous		97% Non-fibrous (other)	3% Chrysotile

Analyst(s)

 Matthew Batongbacal (27)
 Rui Cindy Geng (40)

Baojia Ke, Laboratory Manager
 or other approved signatory

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 Samples analyzed by EMSL Analytical, Inc San Leandro, CA NVLAP Lab Code 101048-3, WA C884

Initial report from 12/22/2013 06:51:29

**EMSL Analytical, Inc**

2235 Polvorosa Ave , Suite 230, San Leandro, CA 94577

Phone/Fax: (510) 895-3675 / (510) 895-3680

<http://www.EMSL.com>sanleandrolab@emsl.com

EMSL Order: 091319346

CustomerID: GECN21

CustomerPO: 59805-01-10

ProjectID:

Attn: **Chris Giuntoli**
Geocon Consultants, Inc.
6671 Brisa Street

Livermore, CA 94550

Project: 59805-01-10 TO-10

Phone: (925) 371-5900
 Fax: (925) 371-5915
 Received: 12/07/13 10:30 AM
 Analysis Date: 12/22/2013
 Collected: 12/4/2013

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

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
TIF-16A-Mastic 2 091319346-0034B	FLOOR	Yellow/Orange Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
TIF-16B-Floor Tile 091319346-0035	FLOOR	White Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
TIF-16B-Mastic 1 091319346-0035A	FLOOR				Stop Positive (Not Analyzed)
TIF-16B-Mastic 2 091319346-0035B	FLOOR	Yellow/Orange Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
TIF-17A-Wall Panel Mastic 091319346-0036	WALL	Beige Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
TIF-17B-Wall Panel Mastic 091319346-0037	WALL	Beige Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
TIF-17B-Compound 091319346-0037A	WALL	White Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
TIF-18A-TSI 091319346-0038		White Fibrous Homogeneous		75% Non-fibrous (other)	25% Chrysotile

Analyst(s)

Matthew Batongbacal (27)

Rui Cindy Geng (40)

Baojia Ke, Laboratory Manager
or other approved signatory

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 Samples analyzed by EMSL Analytical, Inc San Leandro, CA NVLAP Lab Code 101048-3, WA C884

Initial report from 12/22/2013 06:51:29



EMSL Analytical, Inc

2235 Polvorosa Ave , Suite 230, San Leandro, CA 94577

Phone/Fax: (510) 895-3675 / (510) 895-3680

<http://www.EMSL.com>

sanleandrolab@emsl.com

EMSL Order:	091319346
CustomerID:	GECN21
CustomerPO:	59805-01-10
ProjectID:	

Attn: **Chris Giuntoli**
Geocon Consultants, Inc.
6671 Brisa Street

Livermore, CA 94550

Project: 59805-01-10 TO-10

Phone: (925) 371-5900
 Fax: (925) 371-5915
 Received: 12/07/13 10:30 AM
 Analysis Date: 12/22/2013
 Collected: 12/4/2013

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

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
TIF-18B-TSI 091319346-0039					Stop Positive (Not Analyzed)
TIF-18C-TSI 091319346-0040					Stop Positive (Not Analyzed)

Analyst(s) _____
 Matthew Batongbacal (27)
 Rui Cindy Geng (40)


 Baojia Ke, Laboratory Manager
 or other approved signatory

EMSL maintains liability limited to cost of analysis. This report relates only to the samples reported and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. Interpretation and use of test results are the responsibility of the client. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST or any agency of the federal government. Non-friable organically bound materials present a problem matrix and therefore EMSL recommends gravimetric reduction prior to analysis. Samples received in good condition unless otherwise noted. Estimated accuracy, precision and uncertainty data available upon request. Unless requested by the client, building materials manufactured with multiple layers (i.e. linoleum, wallboard, etc.) are reported as a single sample. Reporting limit is 1%
 Samples analyzed by EMSL Analytical, Inc San Leandro, CA NVLAP Lab Code 101048-3, WA C884

Initial report from 12/22/2013 06:51:29



EMSL Analytical, Inc

2235 Polvorosa Ave , Suite 230, San Leandro, CA 94577

Phone/Fax: (510) 895-3675 / (510) 895-3680

<http://www.EMSL.com>

sanleandrolab@emsl.com

EMSL Order:	091319346
CustomerID:	GECN21
CustomerPO:	59805-01-10
ProjectID:	S9870-**-**

Phone: (925) 371-5900
 Fax: (925) 371-5915
 Received: 12/07/13 10:30 AM
 Analysis Date: 1/6/2014
 Collected: 12/4/2013

A 94550

Project: **59805-01-10 TO-10**

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
TIF-6A-Texture <i>091319346-0012B</i>		Tan/White Non-Fibrous Homogeneous		100.00% Non-fibrous (other)	<0.25% Chrysotile
TIF-6B -GB/JC COMPOSITE <i>091319346-0012C</i>		Tan/White Non-Fibrous Homogeneous		100.00% Non-fibrous (other)	<0.25% Chrysotile
TIF-13-GB/JC COMPOSITE <i>091319346-0027B</i>		Tan/White Non-Fibrous Homogeneous		100.00% Non-fibrous (other)	<0.25% Chrysotile

Analyst(s)

Jorge Leon (3)

Baojia Ke, Laboratory Manager
or other approved signatory

Disclaimer: Some samples may contain asbestos fibers present in dimensions below PLM resolution limits. The limit of detection as stated in the method is 0.25%. EMSL Analytical Inc suggests that samples reported as <0.25% or none detected undergo additional analysis via TEM. The above test report relates only to the items tested. This report may not be reproduced, except in full, without written approval of EMSL Analytical Inc. This test report must not be used by the client to claim product endorsement by NVLAP or any agency of the United States Government. EMSL Analytical Inc., bears no responsibility for sample collection activities, analytical method limitations, or the accuracy of results when requested to separate layered samples. EMSL Analytical Inc., liability is limited to the cost of sample analysis. The test results contained within this report meet the requirements of NELAC unless otherwise noted. Samples received in good condition unless otherwise noted. Unless requested by the client, building materials manufactured with multiple layers (i.e. linoleum, wallboard, etc.) are reported as a single sample.
 Samples analyzed by EMSL Analytical, Inc San Leandro, CA NVLAP Lab Code 101048-3, WA C884

Initial report from 01/06/2014 10:39:25



EMSL ANALYTICAL, INC.
LABORATORY PRODUCTS TRAINING

Asbestos Chain of Custody

EMSL Order Number (Lab Use Only):

0 9 1 3 1 9 3 4 6

EMSL ANALYTICAL, INC.
2235 POLVOROSA DR., STE. 230
SAN LEANDRO, CA 94577
PHONE: (510) 895-3675
FAX: (510) 895-3680

Company: GEOCON		EMSL-Bill to: <input checked="" type="checkbox"/> Same <input type="checkbox"/> Different If Bill to is Different note instructions in Comments**	
Street: 6671 BRISA ST		<i>Third Party Billing requires written authorization from third party</i>	
City: LIVERMORE	State/Province: CA	Zip/Postal Code: 94550	Country:
Report To (Name): CHRIS GIUNTOLI		Fax #:	
Telephone #: 925-371-5900		Email Address: GIUNTOLI@GEOCONINC.COM	
Project Name/Number: 59805-01-10		TD-10	
Please Provide Results: <input type="checkbox"/> Fax <input checked="" type="checkbox"/> Email		Purchase Order:	U.S. State Samples Taken:
Turnaround Time (TAT) Options* - Please Check			
<input type="checkbox"/> 3 Hour	<input type="checkbox"/> 6 Hour	<input type="checkbox"/> 24 Hour	<input type="checkbox"/> 48 Hour
<input type="checkbox"/> 72 Hour	<input type="checkbox"/> 96 Hour	<input type="checkbox"/> 1 Week	<input checked="" type="checkbox"/> 2 Week
*For TEM Air 3 hours/6 hours, 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 <input type="checkbox"/> NIOSH 7400 <input type="checkbox"/> w/ OSHA 8hr. TWA PLM - Bulk (reporting limit) <input checked="" type="checkbox"/> PLM EPA 600/R-93/116 (<1%) <input type="checkbox"/> PLM EPA NOB (<1%) Point Count <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%) Point Count w/Gravimetric <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%) <input type="checkbox"/> NYS 198.1 (friable in NY) <input type="checkbox"/> NYS 198.6 NOB (non-friable-NY) <input type="checkbox"/> NIOSH 9002 (<1%)		TEM - Air <input type="checkbox"/> 4-4.5hr TAT (AHERA only) <input type="checkbox"/> AHERA 40 CFR, Part 763 <input type="checkbox"/> NIOSH 7402 <input type="checkbox"/> EPA Level II <input type="checkbox"/> ISO 10312 TEM - Bulk <input type="checkbox"/> TEM EPA NOB <input type="checkbox"/> NYS NOB 198.4 (non-friable-NY) <input type="checkbox"/> Chatfield SOP <input type="checkbox"/> TEM Mass Analysis-EPA 600 sec. 2.5 TEM - Water: EPA 100.2 Fibers >10µm <input type="checkbox"/> Waste <input type="checkbox"/> Drinking All Fiber Sizes <input type="checkbox"/> Waste <input type="checkbox"/> Drinking	
		TEM - Dust <input type="checkbox"/> Microvac - ASTM D 5755 <input type="checkbox"/> Wipe - ASTM D6480 <input type="checkbox"/> Carpet Sonication (EPA 600/J-93/167) Soil/Rock/Vermiculite <input type="checkbox"/> PLM CARB 435 - A (0.25% sensitivity) <input type="checkbox"/> PLM CARB 435 - B (0.1% sensitivity) <input type="checkbox"/> TEM CARB 435 - B (0.1% sensitivity) <input type="checkbox"/> TEM CARB 435 - C (0.01% sensitivity) <input type="checkbox"/> EPA Protocol (Semi-Quantitative) <input type="checkbox"/> EPA Protocol (Quantitative) Other: <input type="checkbox"/>	
<input checked="" type="checkbox"/> Check For Positive Stop - Clearly Identify Homogenous Group			
Samplers Name: CHRIS GIUNTOLI		Samplers Signature: <i>Chris Giuntoli</i>	
Sample #	Sample Description	Volume/Area (Air) HA # (Bulk)	Date/Time Sampled
TIF-1A-1B	ROOF CORE * SAMPLE GROUP		12/4/13
TIF-2A-2B	GRAY ROOF MASTIC * SAMPLE GROUP		
TIF-3A-3B	BLACK & WHITE ROOF MASTIC * SAMPLE GROUP		
TIF-4A-4C	BOILER INSULATION * SAMPLE GROUP		
TIF-5A-5B	BOILER GASKET * SAMPLE GROUP		
TIF-6A-6B	GYPSUM BOARD w/ JOINT COMPOUND * SAMPLE GROUP		
TIF-7A-7B	CONCRETE		
TIF-8A-8B	PAINT		
Client Sample # (s):		Total # of Samples: 40	
Relinquished (Client): <i>Chris Giuntoli</i>		Date: 12/6/13	Time: 1700
Received (Lab): <i>ref</i>		Date: 12/07/13	Time: 10:30 fx
Comments/Special Instructions:			



December 13, 2013

Chris Giuntoli
Geocon Consultants, Inc.
6671 Brisa Street
Livermore, CA 94550
Tel: (925) 371-5900
Fax: (925) 371-5915



Re: ATL Work Order Number : 1303866
Client Reference : DUNSMUIR T1F TO-10, S9805-01-10

Enclosed are the results for sample(s) received on December 06, 2013 by Advanced Technology Laboratories. The sample(s) are tested for the parameters as indicated on the enclosed chain of custody in accordance with applicable laboratory certifications. The laboratory results contained in this report specifically pertains to the sample(s) submitted.

Thank you for the opportunity to serve the needs of your company. If you have any questions, please feel free to contact me or your Project Manager.

Sincerely,

A handwritten signature in black ink, appearing to read "E Rodriguez", is written over a white background.

Eddie Rodriguez
Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and its absence renders the report invalid. Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or applicable state-specific certification programs. The report cannot be reproduced without written permission from the client and Advanced Technology Laboratories.

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Certificate of Analysis

Geocon Consultants, Inc.

6671 Brisa Street

Livermore, CA 94550

Project Number : DUNSMUIR T1F TO-10, S9805-01-10

Report To : Chris Giuntoli

Reported : 12/13/2013

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
T1F-1	1303866-01	Paint Chip	12/04/13 0:00	12/06/13 8:44
T1F-2	1303866-02	Paint Chip	12/04/13 0:00	12/06/13 8:44



Certificate of Analysis

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

Project Number : DUNSMUIR T1F TO-10, S9805-01-10
Report To : Chris Giuntoli
Reported : 12/13/2013

Total Metals by ICP-AES EPA 6010B

Analyte: Lead

Analyst: AG

Laboratory ID	Client Sample ID	Result	Units	PQL	MDL	Dilution	Batch	Prepared	Date/Time	Notes
									Analyzed	
1303866-01	T1F-1	1200	mg/kg	2.0	NA	1	B3L0256	12/12/2013	12/13/13 11:11	
1303866-02	T1F-2	9.4	mg/kg	2.0	NA	1	B3L0256	12/12/2013	12/13/13 11:13	



Certificate of Analysis

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 6671 Brisa Street
 Livermore, CA 94550

Project Number : DUNSMUIR T1F TO-10, S9805-01-10
 Report To : Chris Giuntoli
 Reported : 12/13/2013

QUALITY CONTROL SECTION

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3L0256 - EPA 3050B									
Blank (B3L0256-BLK1)					Prepared: 12/12/2013 Analyzed: 12/13/2013				
Lead	ND	1.0					NR		
LCS (B3L0256-BS1)					Prepared: 12/12/2013 Analyzed: 12/13/2013				
Lead	45.6935	1.0	50.0000		91.4	80 - 120			
Duplicate (B3L0256-DUP1)					Prepared: 12/12/2013 Analyzed: 12/13/2013				
Lead	4.69780	1.0		3.26330	NR		36.0	20	R
Matrix Spike (B3L0256-MS1)					Prepared: 12/12/2013 Analyzed: 12/13/2013				
Lead	102.752	1.0	125.000	3.26330	79.6	51 - 106			
Matrix Spike Dup (B3L0256-MSD1)					Prepared: 12/12/2013 Analyzed: 12/13/2013				
Lead	101.821	1.0	125.000	3.26330	78.8	51 - 106	0.910	20	



Certificate of Analysis

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Livermore, CA 94550

Project Number : DUNSMUIR T1F TO-10, S9805-01-10
Report To : Chris Giuntoli
Reported : 12/13/2013

Notes and Definitions

R	RPD value outside acceptance criteria. Calculation is based on raw values.
ND	Analyte is not detected at or above the Practical Quantitation Limit (PQL). When client requests quantitation against MDL, analyte is not detected at or above the Method Detection Limit (MDL)
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
NR	Not Reported
RPD	Relative Percent Difference
CA1	CA-NELAP (CDPH)
CA2	CA-ELAP (CDPH)
OR1	OR-NELAP (OSPHL)
TX1	TX-NELAP (TCEQ)

- Notes:
- (1) The reported MDL and PQL are based on prep ratio variation and analytical dilution.
 - (2) The suffix [2C] of specific analytes signifies that the reported result is taken from the instrument's second column.

CHAIN OF CUSTODY RECORD



3275 Walnut Ave., Signal Hill, CA 90755
Tel: (562) 989-4045 • Fax: (562) 989-4040

P.O.#: _____	Quote #: _____	FOR LABORATORY USE ONLY:	
Logged By: _____	Date: _____	Method of Transport <input type="checkbox"/> Client <input type="checkbox"/> ATL <input type="checkbox"/> FedEx <input type="checkbox"/> OnTrac <input checked="" type="checkbox"/> GSO <input type="checkbox"/> Other: _____	Sample Condition Upon Receipt 1. CHILLED <input type="checkbox"/> Y <input type="checkbox"/> N 4. CUSTODY SEAL <input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> 2. HEADSPACE (VOA) <input type="checkbox"/> Y <input type="checkbox"/> N 5. # OF SPLS MATCH COC <input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> 3. CONTAINER INTACT <input type="checkbox"/> Y <input type="checkbox"/> N 6. PRESERVED <input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/>

Client: Geocon Consultants, Inc.	Address: 6671 Brisa Street	TEL: (925) 371-5900
Attn: CHRIS GIUNTOLO	City: Livemore State: CA Zip Code: 94550	FAX: (925) 371-5915

Project Name: **DUNSMUIR TIF TO-10** Project #: **59805-DI-10** Sampler: **CHRIS GIUNTOLO** (Printed Name) *Chris Giuntolo* (Signature)

Relinquished by: <i>Chris Giuntolo</i> (Signature and Printed Name)	Date: 12/5/13	Time: 1830	Received by: <i>Chris Giuntolo</i> (Signature and Printed Name)	Date: 12/6/13	Time: 8:44
Relinquished by: _____	Date: _____	Time: _____	Received by: _____	Date: _____	Time: _____
Relinquished by: _____	Date: _____	Time: _____	Received by: _____	Date: _____	Time: _____

I hereby authorize ATL to perform the work indicated below: Project Mgr / Submitter: <i>Chris Giuntolo</i> (Signature) 12/4/13 (Date)	Send Report To: Attn: SEE ABOVE	Bill To: Attn: SAME	Special Instructions/Comments: *SOLUBLE LEAD MAY BE REQUESTED BASED ON TOTAL LEAD RESULTS EA02-2E8001 TO-10 03A2132
Co: _____	Co: _____	Co: _____	
Addr: _____	Addr: _____	Addr: _____	
City: _____ State: _____ Zip: _____	City: _____ State: _____ Zip: _____	City: _____ State: _____ Zip: _____	

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)

I T E M	LAB USE ONLY:		Sample Description				SPECIFY APPROPRIATE MATRIX											PRESERVATION	REMARKS										
	Batch #:	Lab No.	Sample I.D. / Location	Date	Time	8091A (Pesticides)	8092 (PCB)	8280B (Volatiles)	8270C (BNA)	8010B (Total Metal)	8015B (GRO) / 8021 (BTEX)	8015B (DRO)	TITLE 22 / CAM 17 (8010 / 7000)	TOTAL LEAD *	SEDIMENT	SOLID	SOIL			DRINKING WATER	GROUND WATER	WASTEWATER	STORMWATER	AQUEOUS	PAINT CHIP	Container(s)			
	1303866-01		TIF-1B	12/4/13									X											X	E	1	P	B	
	↓ -02		TIF-2	↓									X											X	↓	↓	↓		

• TAT starts 8 a.m. following day if samples received after 5 p.m.	TAT: <input type="checkbox"/> A= Overnight ≤ 24 hrs <input type="checkbox"/> B= Emergency Next workday <input type="checkbox"/> C= Critical 2 Workdays <input type="checkbox"/> D= Urgent 3 Workdays <input type="checkbox"/> E= Routine 7 Workdays	Preservatives: H=Hcl N=HNO ₃ S=H ₂ SO ₄ C=4°C Z=Zn(AC) ₂ O=NaOH T=Na ₂ S ₂ O ₃
Container Types: T=Tube V=VOA L=Liter P=Pin J=Jar B=Teclar G=Glass P=Plastic M=Metal		



January 13, 2014

Chris Giuntoli
Geocon Consultants, Inc.
6671 Brisa Street
Livermore, CA 94550
Tel: (925) 371-5900
Fax: (925) 371-5915



Re: ATL Work Order Number : 1303866
Client Reference : DUNSMUIR T1F TO-10, S9805-01-10

Enclosed are the results for sample(s) received on December 06, 2013 by Advanced Technology Laboratories. The sample(s) are tested for the parameters as indicated on the enclosed chain of custody in accordance with applicable laboratory certifications. The laboratory results contained in this report specifically pertains to the sample(s) submitted.

Thank you for the opportunity to serve the needs of your company. If you have any questions, please feel free to contact me or your Project Manager.

Sincerely,

A handwritten signature in black ink, appearing to read "Eddie Rodriguez", with a small initial "ER" written below the main signature.

Eddie Rodriguez
Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and its absence renders the report invalid. Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or applicable state-specific certification programs. The report cannot be reproduced without written permission from the client and Advanced Technology Laboratories.

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Certificate of Analysis

Geocon Consultants, Inc.

6671 Brisa Street

Livermore, CA 94550

Project Number : DUNSMUIR T1F TO-10, S9805-01-10

Report To : Chris Giuntoli

Reported : 01/13/2014

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
T1F-1	1303866-01	Paint Chip	12/04/13 0:00	12/06/13 8:44



Certificate of Analysis

Geocon Consultants, Inc.

6671 Brisa Street

Livermore , CA 94550

Project Number : DUNSMUIR T1F TO-10, S9805-01-10

Report To : Chris Giuntoli

Reported : 01/13/2014

TCLP Metals by ICP-AES EPA 6010B

Analyte: Lead

Analyst: AG

Laboratory ID	Client Sample ID	Result	Units	PQL	MDL	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1303866-01	T1F-1	0.98	mg/L	0.050	NA	1	B4A0080	01/08/2014	01/08/14 15:38	



Certificate of Analysis

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

Project Number : DUNSMUIR T1F TO-10, S9805-01-10
 Report To : Chris Giuntoli
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QUALITY CONTROL SECTION

TCLP Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B4A0080 - EPA 3010A_SOIL									
Blank (B4A0080-BLK1)					Prepared: 1/8/2014 Analyzed: 1/8/2014				
Lead	ND	0.050							NR
Blank (B4A0080-BLK2)					Prepared: 1/8/2014 Analyzed: 1/8/2014				
Lead	ND	0.050							NR
LCS (B4A0080-BS1)					Prepared: 1/8/2014 Analyzed: 1/8/2014				
Lead	0.966034	0.050	1.00000		96.6	80 - 120			
Duplicate (B4A0080-DUP1)					Prepared: 1/8/2014 Analyzed: 1/8/2014				
Lead	0.648428	0.050		0.685078	NR		5.50	20	
Matrix Spike (B4A0080-MS1)					Prepared: 1/8/2014 Analyzed: 1/8/2014				
Lead	2.85883	0.050	2.50000	0.685078	87.0	81 - 105			
Matrix Spike Dup (B4A0080-MSD1)					Prepared: 1/8/2014 Analyzed: 1/8/2014				
Lead	2.77575	0.050	2.50000	0.685078	83.6	81 - 105	2.95	20	



Certificate of Analysis

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Project Number : DUNSMUIR T1F TO-10, S9805-01-10

Report To : Chris Giuntoli

Reported : 01/13/2014

Notes and Definitions

ND	Analyte is not detected at or above the Practical Quantitation Limit (PQL). When client requests quantitation against MDL, analyte is not detected at or above the Method Detection Limit (MDL)
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
NR	Not Reported
RPD	Relative Percent Difference
CA1	CA-NELAP (CDPH)
CA2	CA-ELAP (CDPH)
OR1	OR-NELAP (OSPHL)
TX1	TX-NELAP (TCEQ)

- Notes:
- (1) The reported MDL and PQL are based on prep ratio variation and analytical dilution.
 - (2) The suffix [2C] of specific analytes signifies that the reported result is taken from the instrument's second column.

Diane Galvan

From: Chris Giuntoli [giuntoli@geoconinc.com]
Sent: Monday, January 06, 2014 12:46 PM
To: Diane Galvan
Cc: watts@geoconinc.com
Subject: RE: Results/EDD/Invoice - DUNSMUIR T1F TO-10 (1303866)

Hi Diane,

For work order 1303866, please run sample TIF-1 for TCLP lead on a standard TAT.

Thanks,
Chris

INFORMATION HANDOUT

For Contract No. 02-2E8004

At 02-Sis-5-R7.2

Identified by

Project ID 0200000603

MATERIALS INFORMATION

Onsite Review Instructions dated August 18, 2015

Foundation Report dated December 30, 2013

Asbestos and Lead-Containing Paint Survey Report dated February 27, 2014

Asbestos and Lead-Containing Paint Survey Report dated December 29, 2006

Conceptual Construction Sequence, dated January 28, 2015

Project No. S8875-06-119
December 29, 2006

Tom Graves, Task Order Manager
Caltrans – District 2
1657 Riverside Drive
Redding, California 96049

Subject: DUNSMUIR TRUCK INSPECTION FACILITY BAYS 1 THROUGH 4
STATE ROUTE 5, SISKIYOU COUNTY, CALIFORNIA
CONTRACT NO. 03A0937
TASK ORDER NO. 119, EA NO. 02-0C3300
ASBESTOS AND LEAD-CONTAINING PAINT SURVEY REPORT

Dear Mr. Graves:

In accordance with California Department of Transportation Contract No. 03A0937 and Task Order No. 119, we have performed an asbestos and lead-containing paint survey of the Dunsmuir Truck Inspection Facility in Siskiyou County, California. The scope of services included surveying bays 1 through 4 for suspect asbestos-containing materials and lead-containing paint, 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
Project Scientist

John E. Juhrend, PE, CEG
Project Manager

DAW:JEJ:jaj

(5 + 3 CDs) Addressee

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. 03A0937, Task Order No. 119 (TO-119).

1.1 Project Description

The project consists of bays 1 through 4 at the Dunsmuir Truck Inspection Facility (TIF) on State Route (SR) 5 in Siskiyou 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 the scope of services outlined in TO-119 was to determine the presence and quantity of asbestos and 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 not 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.

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 as construction material that contains more 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 separating 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

3.0 SCOPE OF SERVICES

Mr. David Watts, a California-Certified Asbestos Consultant (CAC), certification No. 98-2404 (expiration September 16, 2007), and Certified Lead Paint Inspector/Assessor and Project Monitor with the California Department of Health Services (DHS), certification numbers I-1734 and M-1734 (expiration December 4, 2007), performed the asbestos and LCP survey at the project location on November 30 and December 1, 2006.

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 condition (evidence of deterioration, physical damage, and water damage) and friability. A total of 23 bulk asbestos samples of suspect building materials were collected. A thorough inspection of roofing materials was not possible due to snow coverage.

Our procedures for inspection and sampling in accordance with TO-119 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 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 5-workday 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

A total of two bulk paint samples were collected from suspect LCP observed at the project location. Geocon's sampling procedures in accordance with TO-119 are discussed below:

- Collected bulk samples of suspect LCP using techniques presented in HUD guidelines. In addition, each painted area was evaluated for evidence of deterioration such as flaking or cracking.
- Relinquished bulk LCP samples to Advanced Technology Laboratories, a California-licensed and Caltrans-approved subcontractor, for lead analyses in accordance with EPA Test Method 6010B

4.0 INVESTIGATIVE RESULTS

4.1 Asbestos Analytical Results

A summary of the analytical laboratory test results for asbestos is presented on Table 1. The laboratory analyses indicated the following:

- Chrysotile asbestos at concentrations ranging from 7% to 10% was detected in samples representing approximately 10 square feet of friable thermal system insulation (TSI) used on 2-inch outside diameter (OD) fittings at the project location. The material was observed to be in generally good condition.
- Amosite asbestos at a concentration of 15% was detected in samples representing approximately 400 square feet of friable TSI used on 3.5-inch OD piping at the project location. The material was observed to be in generally good condition.
- Amosite and chrysotile asbestos at concentrations ranging from 10% to 15% was detected in samples representing approximately 25 square feet of friable TSI used on 3.5-inch OD fittings at the project location. The material was observed to be in generally good condition.
- Amosite and chrysotile asbestos at concentrations ranging from 10% to 16% was detected in samples representing approximately 350 square feet of friable TSI used on 5-inch OD piping at the project location. The material was observed to be in generally good condition.
- Amosite and chrysotile asbestos at concentrations of 15% was detected in samples representing approximately 30 square feet of friable TSI used on 5-inch OD fittings at the project location. The material was observed to be in generally good condition.
- Chrysotile asbestos at concentrations ranging from 3% to 10% was detected in samples representing approximately 50 square feet of friable TSI used on 7-inch OD fittings at the project location. The material was observed to be in generally good condition.
- Amosite and chrysotile asbestos at concentrations ranging from 3% to 11% was detected in samples representing approximately 50 square feet of friable TSI used on 9-inch OD fittings at the project location. The material was observed to be in generally good condition.

No asbestos was detected in samples of asphalt roofing materials collected from TIF bays 1 through 4 during the survey. Reproductions of the laboratory report and chain-of-custody documentation are presented in Appendix A.

5.0 RECOMMENDATIONS

Based on our findings, Geocon recommends the following:

5.1 Asbestos

Geocon observed the sporadic use of friable asbestos-containing pipe and fitting insulation in TIF bays 1 through 4 at the project location. Asbestos-containing pipe and fitting insulation is generally harder to the touch than non-asbestos fiberglass and foam insulation. Asbestos-containing insulation jacketing is typically a cloth wrap (canvas is common). The asbestos-containing pipe and fitting insulation was observed to be in generally good condition, but we did observe localized areas of jacket damage which should be addressed.

Based on the survey results, we recommend that asbestos-containing TSI be removed and disposed of by a licensed and certified asbestos abatement contractor prior to renovation, demolition, or other activities that would disturb the materials. Contractors are responsible for informing the landfill of the contractor's intent to dispose of friable RACM (a hazardous waste). Some landfills may require additional waste characterization. Contractors are responsible for segregating and characterizing waste streams prior to disposal. For budgetary planning purposes, our opinion of probable abatement costs for the removal, containerization, transportation, and disposal of the asbestos-containing materials identified above is \$30,000.

We also recommend written notification to contractors (that will be conducting renovation, demolition, relocation, or related activities) and building occupants of the presence of asbestos (i.e., provide the occupants and contractor[s] with a copy of this report and a list of asbestos removed by asbestos abatement contractor[s] during subsequent abatement activities). Contractors and occupants should be instructed not to disturb asbestos.

Written notification to 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) and for renovation activities involving specified quantities of RACM. For notification instructions, please see the following internet link: <http://www.arb.ca.gov/enf/asbestosform.htm>. 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 paint 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 LCP sample results and the

6.0 REPORT LIMITATIONS

The 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 areas 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 Geocon's 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.

TABLE 1

SUMMARY OF ASBESTOS RESULTS

STATE ROUTE 5 - DUNSMUIR TRUCK INSPECTION FACILITY BAYS 1 - 4
 CALTRANS CONTRACT 03A0937, TASK ORDER NO. 119, EA 02-0C3300
 SISKIYOU COUNTY, CALIFORNIA

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

Sample Group	Description of Material	Approximate Quantity	Friable	Site Photos	Asbestos Concentration
TIF-1	Asphalt roofing roll	NA	NA	2	ND
TIF-2	Asphalt roofing mastic	NA	NA	2	ND
TIF-3	2-inch OD fitting insulation	10 square feet	Yes	5	7% - 10%
TIF-4	3 1/2-inch OD pipe insulation	400 square feet	Yes	6	15%
TIF-5	3 1/2-inch OD fitting insulation	25 square feet	Yes	4	10% - 15%
TIF-6	5-inch OD pipe insulation	350 square feet	Yes	3 & 7	10% - 16%
TIF-7	5-inch OD fitting insulation	30 square feet	Yes	7	15%
TIF-8	7-inch OD fitting insulation	50 square feet	Yes	8	3% - 10%
TIF-9	9-inch OD fitting insulation	50 square feet	Yes	9	3% - 11%

Notes:

NA = Not applicable (no asbestos detected)

ND = Not detected

OD = Outside diameter



Photo 4 – Thermal system insulation (3.5-inch diameter)



Photo 5 – Thermal system insulation (2-inch diameter)



Photo 6 – Thermal system insulation (3.5-inch diameter)

GEOCON

CONSULTANTS, INC.
 3160 Gold Valley Drive, Suite 800
 Rancho Cordova, California 95742
 PHONE (916) 852-9118 – FAX (916) 852-9132



PHOTOGRAPHS 4, 5, & 6

Dunsmuir Truck Inspection Facility
 Siskiyou County, California

S8875-06-119

Task Order 119

December 2006



Photo 7 – Thermal system insulation (5-inch diameter)



Photo 8 – Thermal system insulation (7-inch diameter)



Photo 9 – Thermal system insulation (9-inch diameter)

GEOCON

CONSULTANTS, INC.
3160 Gold Valley Drive, Suite 800
Rancho Cordova, California 95742
PHONE (916) 852-9118 – FAX (916) 852-9132



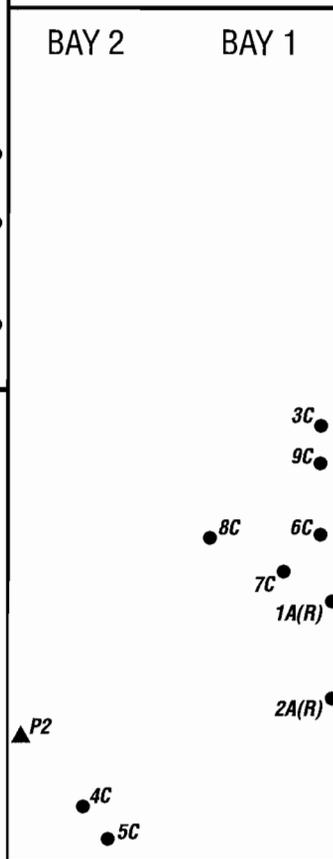
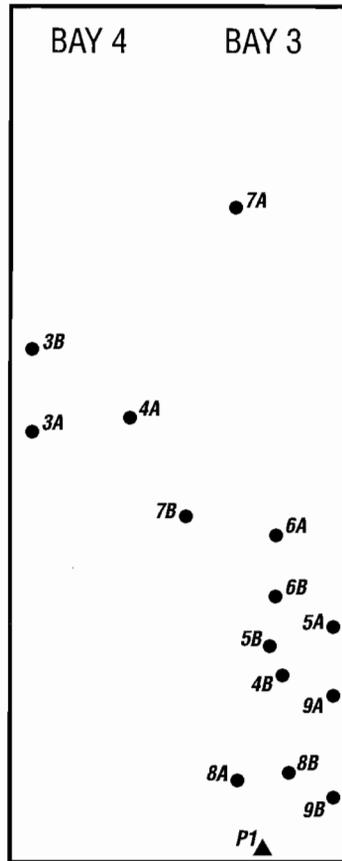
PHOTOGRAPHS 7, 8, & 9

Dunsmuir Truck Inspection Facility
Siskiyou County, California

S8875-06-119

Task Order 119

December 2006



SCALE APPROXIMATE

LEGEND:

- Approximate Asbestos Sample Location
- ▲ Approximate Paint Sample Location
- (R) Roof

GEOCON

CONSULTANTS, INC.

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



Dunsmuir Truck Inspection Facility

Siskiyou County,
 California

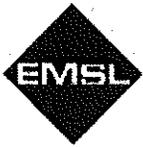
SITE PLAN

GEOCON Proj. No. S8875-06-119

Task Order No. 119

December 2006

Figure 2



EMSL Analytical, Inc

2235 Polvorosa Ave , Suite 230, San Leandro, CA 94577

Phone: (510) 895-3675 Fax: 5108953680 Email: milpitaslab@emsl.com

Attn: **David Watts**
Geocon Consultants
2356 Research Drive
Livermore, CA 94550

Customer ID: GECN21
Customer PO: S8875-06-119
Received: 12/05/06 9:40 AM
EMSL Order: 090606048

Fax: (925) 371-5915 Phone: (925) 371-5900
Project: S8875-06-119 / Dunsmuir TIF, Bays 1-4, Dunsmuir, CA

EMSL Proj: GEC9-59
Analysis Date: 12/12/2006
Report Date: 12/13/2006

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

Sample	Location	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
1A, Asphalt roofing roll 090606048-0001		Black Fibrous Homogeneous	20% Glass	80% Non-fibrous (other)	None Detected
2A, Asphalt roofing mastic 090606048-0002		Black, Gray Fibrous Heterogeneous	15% Cellulose	85% Non-fibrous (other)	None Detected
3A, 2" OD Fitting insulation 090606048-0003		Tan Fibrous Homogeneous	30% Cellulose	60% Non-fibrous (other)	10% Chrysotile
3B, 2" OD Fitting insulation 090606048-0004		Tan Fibrous Homogeneous	30% Cellulose 5% Glass	55% Non-fibrous (other)	10% Chrysotile
3C, 2" OD Fitting insulation 090606048-0005		Tan Fibrous Homogeneous	15% Cellulose 5% Glass	73% Non-fibrous (other)	7% Chrysotile
4A, 3 1/2" Pipe insulation 090606048-0006		Tan Fibrous Homogeneous		85% Non-fibrous (other)	15% Amosite
4B, 3 1/2" Pipe insulation 090606048-0007		Tan Fibrous Homogeneous		85% Non-fibrous (other)	15% Amosite

Analyst(s)

Jeremy Malson (23)

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.
Analysis performed by EMSL San Leandro (NVLAP #101048-3)



EMSL Analytical, Inc

2235 Polvorosa Ave , Suite 230, San Leandro, CA 94577

Phone: (510) 895-3675 Fax: 5108953680 Email: mljpitasiab@emsl.com

Attn: **David Watts**
Geocon Consultants
2356 Research Drive
Livermore, CA 94550

Customer ID: GECN21
Customer PO: S8875-06-119
Received: 12/05/06 9:40 AM
EMSL Order: 090606048

Fax: (925) 371-5915 Phone: (925) 371-5900
Project: **S8875-06-119 / Dunsmuir TIF, Bays 1-4, Dunsmuir, CA**

EMSL Proj: GEC9-59
Analysis Date: 12/12/2006
Report Date: 12/13/2006

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

Sample	Location	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
7A, 5" Fitting insulation 090606048-0015		Tan Fibrous Homogeneous	20% Cellulose	65% Non-fibrous (other)	15% Amosite
7B, 5" Fitting insulation 090606048-0016		Tan Fibrous Homogeneous	20% Cellulose	65% Non-fibrous (other)	15% Chrysotile
7C, 5" Fitting insulation 090606048-0017		Tan Fibrous Homogeneous	10% Cellulose 5% Glass	70% Non-fibrous (other)	15% Chrysotile
8A, 7" OD Fitting insulation 090606048-0018		Tan Fibrous Homogeneous	25% Cellulose	75% Non-fibrous (other)	None Detected
8B, 7" OD Fitting insulation 090606048-0019		Tan Fibrous Homogeneous	10% Cellulose 5% Glass	75% Non-fibrous (other)	10% Chrysotile
8C, 7" OD Fitting insulation 090606048-0020		Tan Fibrous Homogeneous	20% Cellulose	77% Non-fibrous (other)	3% Chrysotile
9A, 9" OD Fitting insulation 090606048-0021		Tan Fibrous Homogeneous	20% Cellulose	69% Non-fibrous (other)	10% Amosite 1% Chrysotile

Analyst(s)

Jeremy Malson (23)

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.
Analysis performed by EMSL San Leandro (NVLAP #101048-3)



Project No. S8875-06-119
April 23, 2007

Tom Graves, Task Order Manager
Caltrans – District 2
1657 Riverside Drive
Redding, California 96049

Subject: DUNSMUIR TRUCK INSPECTION FACILITY
STATE ROUTE 5, SISKIYOU COUNTY, CALIFORNIA
CONTRACT NO. 03A0937
TASK ORDER NO. 119, EA NO. 02-0C3300
ASBESTOS AIR SAMPLING REPORT

Dear Mr. Graves:

In accordance with California Department of Transportation Contract No. 03A0937 and Task Order No. 119, we have performed air sampling for asbestos at the Dunsmuir Truck Inspection Facility (TIF) in Siskiyou County, California. Mr. Chris Giuntoli, a California Certified Asbestos Consultant (CAC), certification No. 02-3163 (expiration June 19, 2007), conducted air sampling at the Dunsmuir TIF during daytime work shifts on Thursday, March 29, 2007.

Air Monitoring

Four area air sample pumps with filter cassettes were set-up in Bays 1 through 4 with a fifth area sample set-up approximately 75 feet north of the truck inspection building to measure background conditions. The sample cassettes were positioned on tripods at the approximate level of the workers' breathing zone; and the sampling duration was from approximately 8:00 a.m. through 4:00 p.m. The wind speed and direction during the sampling period was light and from the northwest.

One personal sampling pump and cassette was rotated over an 8-hour sampling period among three inspectors during daytime work shifts who were conducting routing tasks in Bays 1, 2, and 4. A second sampling pump and cassette was placed on an inspector for a 30-minute monitoring period during which the inspector completed two consecutive truck inspections.

The personal sampling cassettes were affixed to the front lapel of worker's clothing within their breathing zone. The sampling strategy for the personal samples – 8-hours (full-shift) and 30-minutes (short-term) – comply with the requirements of Title 8 California Code of Regulations (T8 CCR) §5208(d) Asbestos – Exposure Monitoring. The sample results were compared with the respective California Occupational Safety and Health Administration (Cal/OSHA) 8-hour Time-Weighted Average (8-hr TWA) Permissible Exposure Limit (PEL) of 0.1 fibers per cubic centimeter of air (f/cc) and the 30-minute Excursion Limit of 1.0 f/cc. Based on observations and interviews with the workers monitored, their tasks and activities on March 29, 2007 were generally representative of routine work conditions.



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: **Chris Giuntoli**
Geocon Consultants
2356 Research Drive
Livermore, CA 94550

Fax: (925) 371-5915 Phone: (925) 371-5900
Project: S8875-06-119

Customer ID: GECN21
Customer PO: S8875-06-119
Received: 03/30/07 7:36 AM
EMSL Order: 090701456
EMSL Proj: GEC9-59
Analysis Date: 4/2/2007
Report Date: 4/2/2007

Fiber Count by Phase Contrast Microscopy (PCM), NIOSH 7400 Method, Revision 3, Issue 2, 8/15/94

Sample	Location	Sample Date	Volume	Fibers	Fields	LOD (fib/cc)	Fibers/mm ²	Fibers/cc	Notes
BAY-1 090701456-0001	Interior BAY-1	3/30/2007	3172.00	17.0	100	0.001	21.7	0.003	
BAY-2 090701456-0002	Interior BAY-2	3/30/2007	3137.00	13.0	100	0.001	16.6	0.002	
BAY-3 090701456-0003	Interior BAY-3	3/30/2007	3130.00	12.5	100	0.001	15.9	0.002	
BAY-4 090701456-0004	Interior BAY-4	3/30/2007	3151.00	<5.5	100	0.001	<7.0	<0.001	
UPWIND 090701456-0005	Exterior	3/30/2007	3150.00	13.5	100	0.001	17.2	0.002	
LB11712, Lot blank 090701456-0006		3/30/2007	0.00	10.0	100		12.7		Lab Blank Sample may be contaminated.
FB-01, Field blank 090701456-0007		3/30/2007	0.00	<5.5	100		<7.0		Field Blank
FB-02, Field blank 090701456-0008		3/30/2007	0.00	<5.5	100		<7.0		Field Blank

Analyst(s) _____
Joseph Alonzo (10)



or other approved signatory

Limit of detection is 7 fibers/mm². The laboratory is not responsible for data reported in fibers/cc, which is dependent on volume collected by non-laboratory personnel. This report relates only to the samples reported above. The test results contained within this report meet the requirements of NELAC unless otherwise noted. This report may not be reproduced, except in full, without written approval by EMSL. Unless otherwise noted, the results in this report have not been blank corrected. Samples received in good condition unless otherwise noted.

Analysis performed by EMSL San Leandro (AIHA #107748)



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Project: **S8875-06-119**

Customer ID: GECN21
Customer PO: S8875-06-119
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EMSL Proj: GEC9-59
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Report Date: 4/6/2007

Asbestos Analysis of Air Samples by Transmission Electron Microscopy via NIOSH Method 7402

Sample	Volume (Liters)	Non Asbestos Fibers	PCM F/cc	Asbestos Type(s)	Asbestos Fibers	Asbestos % of total	7402 Adjusted (TEM) F/cc	Notes
PS-01, Personal, 8HR 090701456-0009	960	0	0.007		0		<0.003	

NIOSH 7402 method only reports fibers $\geq 5\mu\text{m}$ in length and $\geq 0.25\mu\text{m}$ in width. This method requires 2 field blank analyses per set. Since no blanks were analyzed, the results are not blank corrected.

Average number of asbestos fibers on field blanks: n/a

Average number of non-asbestos fibers on field blanks: n/a

Analyst(s)

Kenneth Dunbar (1)

Daniel Kocher, Laboratory Manager
or other approved signatory

EMSL is not responsible for data reported in fibers/cc, which is dependent on volume collected by non-laboratory personnel. The above report relates only to the items tested. This report may not be reproduced, except in full, without written approval by EMSL Analytical, Inc. Samples received in good condition unless otherwise noted.
Analysis performed by EMSL San Leandro (AIHA #107748)

INFORMATION HANDOUT

For Contract No. 02-2E8004

At 02-Sis-5-R7.2

Identified by

Project ID 0200000603

MATERIALS INFORMATION

Onsite Review Instructions dated August 18, 2015

Foundation Report dated December 30, 2013

Asbestos and Lead-Containing Paint Survey Report dated February 27, 2014

Asbestos and Lead-Containing Paint Survey Report dated December 29, 2006

Conceptual Construction Sequence, dated January 28, 2015



Conceptual Construction Sequence

- 1.** Relocate existing Storage Buildings.
- 2.** Construct septic system that includes 3000 gallon septic tank and Leach field. Construct septic line parallel to existing line. Remove existing septic tank.
- 3.** Construct trench from Utilities Building to existing Scale House and Office for new power and communication, septic, and water lines.
- 4.** Construct Utilities Building.
- 5.** Install power and communication to new Utilities Building.
- 6.** Connect new power and communication, septic, and water to Scale House. Facility closure expected at this time.
- 7.** Install Electrical Panels in existing Inspection Building and connect to new Utilities Building.
- 8.** Construct Fire Pump House and Fire Water Tank.
- 9.** Demolish existing Inspection Office Building. Partial closure of Inspection Building expected at this time.
- 10.** Construct concrete footing, braced frame with metal deck of new Inspection Office Building. Construction can occur through winter, placing of utility lines before concrete slab is placed. Structure can support snow loads. Construction of exterior walls should not impede installation of utilities.
- 11.** Install temporary or permanent roofing.
- 12.** Install power and communication to new electrical room.
- 13.** Connect hot water from new Utilities Building Boiler to existing Inspection Building.
- 14.** Place concrete slab of Inspection Office Building.
- 15.** Continue with normal construction sequence to complete building.
- 16.** AC paving, seal and stripe Operations Yard. Facility closure expected at this time.