

# LIMITED ASBESTOS AND LEAD-CONTAINING PAINT SURVEY REPORT



## IERBYS BUILDING BURMA ROAD ALAMEDA COUNTY, CALIFORNIA

PREPARED FOR:

CALIFORNIA DEPARTMENT OF TRANSPORTATION  
DISTRICT 4  
OFFICE OF ENVIRONMENTAL ENGINEERING  
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## REPORT LIMITATIONS

This limited asbestos and lead-containing paint (LCP) survey was conducted in conformance with generally accepted standards of practice for identifying and evaluating asbestos and LCP in structures. The limited survey was conducted for designated building areas presented in Section 1.1 of this report. A complete inspection of interior and exterior building areas was not conducted. Therefore, this limited asbestos survey report should not be considered a comprehensive survey of suspect asbestos-containing materials present at the project location.

Due to the nature of structure surveys, asbestos and LCP use, and laboratory analytical limitations, some asbestos or LCP in the structure may not have been identified. Structure spaces such as cavities, crawlspaces, and pipe chases may have been concealed to our investigator. Previous structure 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 asbestos with indistinguishable non-asbestos materials. Asbestos or LCP may exist in areas of the structure not accessible or sampled in conjunction with this Task Order.

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

This report has been prepared exclusively for the State of California Department of Transportation (Caltrans) District 4. 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 authors 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.

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## EXECUTIVE SUMMARY

This limited asbestos and lead-containing paint (LCP) survey report was prepared for the Interurban Electric Railway Bridge Yard Shop (IERBYS) Building at the Burma Road Caltrans facility in Alameda County, California. We performed a limited asbestos and LCP survey on the IERBYS Building. The project location is depicted on the Vicinity Map, Figure 1.

The limited asbestos and LCP survey was conducted at specific office and warehouse interior areas and associated exterior walls of the IERBYS Building. The roofs (lower and upper) and crawlspaces of the IERBYS Building were not requested as areas to be surveyed and were excluded from our survey activities. The limits of the asbestos and LCP survey (bordered in red) are depicted on the Site Plan, Figure 2. Caltrans has requested an investigation at the project location to provide data regarding the presence of asbestos and LCP prior to building renovation activities.

This report documents the investigation sampling methods and laboratory analytical data. The primary objective of our survey was to determine and quantify asbestos and LCP at the project location prior to building renovation activities. The information obtained from this investigation will be used by Caltrans to coordinate proposed activities, determine appropriate abatement/disposal costs, and identify health and safety concerns during improvements.

The field investigation was performed on December 18 and 19, 2012. The following field activities were performed during asbestos and LCP sampling efforts:

- Collected 52 bulk suspect asbestos samples;
- Collected four suspect LCP samples; and
- Transported samples to Caltrans-approved, California-certified environmental laboratories.

Samples were collected from locations as shown on the Site Plan (Figure 2). Suspect asbestos and LCP sample identification numbers are presented in Tables 1 and 2, respectively. Materials represented by the samples collected are presented in the Site Photographs.

Bulk suspect asbestos samples were collected after first wetting friable materials with a light mist of water. The samples were then cut from the substrate and transferred to labeled containers and sealed. Three suspect materials were identified during the survey (see Table 1). Sampling locations were distributed throughout the homogeneous areas (spaces where the material was observed).

We relinquished bulk samples for asbestos analysis using standard chain-of-custody documentation. Asbestos content was determined using U.S. Environmental Protection Agency (EPA) Test Method 600/R-93/116 for polarized light microscopy (PLM). We requested laboratory analyses to be within a 48-hour turnaround time.

Four bulk paint samples were collected using techniques presented in U.S. Department of Housing and Urban Development (HUD) guidelines.

*It was not Geocon's intent during this inspection to conduct an evaluation of lead-based paint hazards in accordance with HUD guidelines.*

We relinquished bulk paint samples for lead analysis using standard chain-of-custody documentation. Total lead content was determined using EPA Test Method 6010B. We requested laboratory analyses to be within a 48-hour turnaround time.

The laboratory analyses for asbestos indicated the following:

- Chrysotile asbestos at concentrations of 2% and 5-7% was detected in samples representing approximately 1,300 square feet nonfriable white with gray streaks 12-inch by 12-inch resilient floor tile and black mastic, respectively, in the conference room and offices.
- Chrysotile asbestos at a concentration of less than (<) 0.25% by PLM point count analysis (400 points) was detected in samples representing approximately 1,400 square feet nonfriable window putty on the exterior windows.
- Chrysotile asbestos at concentrations of <1 – 2% was detected in samples representing joint compound applied to approximately 9,100 square feet of gypsum board wall system in the offices and restrooms. Point count analysis (400 points) of the gypsum board/joint compound composite samples indicated chrysotile asbestos at a concentration of <0.25%. Chrysotile asbestos at concentrations of <0.25 – 1.00% by PLM point count analysis (400 points) was detected in samples of wall texture applied to the gypsum board wall system.
- Chrysotile asbestos at concentrations of <1% and 6-7% was detected in samples representing approximately 550 square feet nonfriable off-white with brown streaks 12-inch by 12-inch resilient floor tile and black mastic, respectively, in the men's restroom and locker room.
- Chrysotile asbestos at a concentration of <1% was detected in samples representing approximately 100 square feet nonfriable white with olive streaks 12-inch by 12-inch resilient floor tile in the storage area entry hall.
- Chrysotile asbestos at a concentration of <1% was detected in samples representing approximately 1,100 square feet nonfriable olive resilient floor tile (lower layer of multi layered flooring) in the east office and women's restroom.
- Chrysotile asbestos at concentrations of <1 – 2% was detected in samples representing joint compound applied to approximately 7,500 square feet of gypsum board wall system (dividing walls) in the warehouse portion of the building. Point count analysis (400 points) of the gypsum board/joint compound composite samples indicated chrysotile asbestos at a concentration of <0.25%. Chrysotile asbestos at concentrations of 0.25 – 0.50% by PLM point count analysis (400 points) was detected in samples of wall texture applied to the gypsum board wall system.
- Chrysotile asbestos at a concentration of 2% was detected in samples representing approximately 75 square feet nonfriable wall panel and penetration sealant applied to corner joints and wall penetrations of the exterior cementitious wall panels.
- No asbestos was detected in samples of the remaining suspect materials collected during our survey.

Approximately 11,000 square feet of corrugated cementitious wall and roof panels containing 40% chrysotile asbestos (Galston Survey Report) were observed on the exterior walls and roof of the portion of the IERBYS Building included in our limited asbestos survey.

The Galston Survey Report listed approximately 22,000 square feet of corrugated asbestos-cement siding (40% chrysotile) on the exterior walls and roofs of the IERBYS Building, and approximately 2,400 square feet of gray with white streaks 9-inch by 9-inch resilient floor tile (1 5% chrysotile) with black mastic in interior office areas as asbestos containing materials.

Laboratory results for the asbestos samples are summarized in Table 1. Reproductions of the laboratory report and chain-of-custody documentation are presented in Appendix A.

The laboratory analyses for lead paint indicated the following:

- A bulk sample representing intact white interior paint exhibited a total lead concentration of 520 mg/kg, a WET lead concentration of 4.1 mg/l, and a TCLP lead concentration of 0.73 mg/l.
- A bulk sample representing intact silver interior paint exhibited a total lead concentration of 160,000 mg/kg and a TCLP lead concentration of 2,200 mg/l.
- A bulk sample representing approximately 100 square feet of deteriorated tan paint applied to the east warehouse doors exhibited a total lead concentration of 58,000 mg/kg and a TCLP lead concentration of 160 mg/l.
- A bulk sample representing intact tan exterior paint exhibited a total lead concentration of 27,000 mg/kg and a TCLP lead concentration of 5.1 mg/l.

Geocon paint sample laboratory results are summarized in Table 2. Reproductions of the lead laboratory report and chain-of-custody documentation are presented in Appendix A.

We provide the following conclusions and recommendations based on the results of our investigation.

NESHAP regulations do not require that asbestos-containing floor tiles, mastic, or cementitious wall panel sealant (Category I nonfriable/nonhazardous materials), cementitious walls panels (a Category II nonfriable/nonhazardous material), or materials containing 1% or less asbestos (i.e., gypsum board/joint compound, wall texturing, and window putty) identified during our survey and the Galston Survey Report be removed prior to demolition or treated as hazardous waste.

However, the disturbance of these materials is still covered by the Cal/OSHA asbestos standard contained in Title 8, CCR Section 1529. We recommend that a licensed contractor registered with Cal/OSHA for asbestos-related work perform activities that would disturb the sheet packing. Contractors are responsible for informing landfills and recycling facilities of the contractor's intent to dispose of asbestos-containing waste. Some landfills and recycling facilities may require additional

waste characterization. Contractors are responsible for segregating and characterizing waste streams prior to disposal.

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

In accordance with Bay Area Air Quality Management District (BAAQMD) Regulation 11, Rule 2, written notification 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. 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.

Intact white interior paint identified during our LCP survey would not be classified as a California hazardous waste or Federal (RCRA) waste based on lead content if stripped, blasted, or otherwise separated from the substrate.

Intact silver interior paint and tan exterior paint identified during our LCP survey would be classified as a California hazardous waste and Federal (RCRA) waste based on lead content if stripped, blasted, or otherwise separated from the substrate.

Deteriorated tan paint on the storage area east exterior doors identified during our LCP survey would be classified as a California hazardous and Federal (RCRA) waste based on lead content.

We recommend that the deteriorated LCP on the project location that meet the criteria of either California or Federal hazardous waste be removed and disposed of prior to renovation, demolition, or other activities that would disturb the paint.

We recommend that the contractor 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 and recycling facilities 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 (including other interior and exterior paint, signage, etc.) be treated as lead-containing for purposes of determining the applicability of the Cal/OSHA lead standard during maintenance, renovation, and demolition activities. This recommendation is based on 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, Section 1532.1(p), written notification to the nearest Cal/OSHA district office is required at least 24 hours prior to certain lead-related work. Compliance and training requirements regarding construction activities where workers may be exposed to lead are presented in Title 8, CCR, Section 1532.1, subsections (e) and (l), respectively. Contractors are responsible for segregating and characterizing waste streams prior to disposal.

# LIMITED ASBESTOS AND LEAD-CONTAINING PAINT SURVEY REPORT

## 1.0 INTRODUCTION

This limited asbestos and lead-containing paint (LCP) survey report was prepared for the Interurban Electric Railway Bridge Yard Shop (IERBYS) Building at the Burma Road Caltrans facility in Alameda County, California. This report documents the investigation sampling methods and laboratory analytical data.

### 1.1 Site Description and Proposed Improvements

The project consists of the IERBYS Building. The project location is depicted on the Vicinity Map, Figure 1. The limited asbestos and LCP survey was conducted at specific office and warehouse interior areas and associated exterior walls of the IERBYS Building. The roofs (lower and upper) and crawlspaces of the IERBYS Building were not requested as areas to be surveyed and were excluded from our survey activities. The limits of the asbestos and LCP survey (bordered in red) are depicted on the Site Plan, Figure 2. Caltrans has requested an investigation at the project location to provide data regarding the presence of asbestos and LCP prior to building renovation activities.

### 1.2 Purpose

The primary objective of our survey was to determine and quantify asbestos and LCP at the project location prior to building renovation activities. The information obtained from this investigation will be used by Caltrans to coordinate proposed improvements, determine appropriate abatement/disposal costs, and identify health and safety concerns during improvements.

## 2.0 BACKGROUND

### 2.1 Asbestos

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

- **Category I** – asbestos-containing packings, gaskets, resilient floor coverings, and asphalt roofing products.
- **Category II** – all remaining types of non-friable 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; 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 non-friable 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 California Occupational Safety and Health Administration (Cal/OSHA) asbestos standard contained in Title 8, CCR Section 1529. Typically, removal or disturbance of more than 100 square feet of material containing more than 0.1% asbestos must be performed by a registered asbestos abatement contractor, but associated waste labeling is not required if the material contains 1% or less asbestos. When the asbestos content of a material exceeds 1%, virtually all requirements of the standard become effective.

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

## **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. Most landfills and recycling facilities accept intact LCP on a component; however, contractors are responsible for segregating and characterizing waste streams prior to disposal.

For a solid waste containing lead, the waste is classified as California hazardous when: 1) the total lead content equals or exceeds the respective Total Threshold Limit Concentration (TTLC) of 1,000 milligrams per kilogram (mg/kg); or 2) the soluble lead content equals or exceeds the respective Soluble Threshold Limit Concentration (STLC) of 5 milligrams per liter (mg/l) based on the standard Waste Extraction Test (WET). A waste has the potential for exceeding the lead STLC when the

waste's total lead content is greater than or equal to ten times the respective STLC value since the WET uses a 1:10 dilution ratio. Hence, when total lead is detected at a concentration greater than or equal to 50 mg/kg, and assuming that 100 percent of the total lead is soluble, soluble lead analysis is required. Lead-containing waste is classified as "Resource, Conservation, and Recovery Act" (RCRA) hazardous, or Federal hazardous, when the soluble lead content equals or exceeds the Federal regulatory level of 5 mg/l based on the Toxicity Characteristic Leaching Procedure (TCLP).

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

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

### **2.3 Engineering Drawings and Prior Survey Reports**

We reviewed structure floor plans provided by Caltrans to determine the extent of the proposed renovation activities and for general orientation purposes prior to field activities. We did not observe specifications or notes regarding the use of asbestos-containing materials or lead paint on the structure floor plans provided.

We reviewed a report titled, *Office of the State Architect, Asbestos Survey Report, Department of Transportation, District Four, SF-Oakland Bay Bridge Toll Plaza Facility*, dated January 31, 1992, prepared by Galston Corporation (Galston Survey Report). The following asbestos-containing materials were listed in the Galston Survey Report for the IERBYS Building:

- Approximately 22,000 square feet of corrugated asbestos-cement siding (40% chrysotile) on the exterior walls and roofs;
- Approximately 8,000 square feet of white with tan streaks 12-inch by 12-inch resilient floor tile with black mastic (1-5% chrysotile) in interior office areas;
- Approximately 2,400 square feet of gray with white streaks 9-inch by 9-inch resilient floor tile with black mastic (1-5% chrysotile) in interior office areas.

Lead flashing was identified on attached to the lower edges of the window frames on the exterior walls of the IERBYS Building.

### 3.0 SCOPE OF SERVICES

The following scope of services was performed:

#### 3.1 Pre-Field Activities

- Retained the services of EMSL, a Caltrans-approved laboratory accredited by the National Voluntary Laboratory Accreditation Program (NVLAP), to perform the asbestos analyses.
- Retained the services of ATL, a Caltrans-approved laboratory, to perform the lead paint analyses.

#### 3.2 Field Activities

Mr. Chris Giuntoli, a California-Certified Asbestos Consultant (CAC), certification No. 02-3163 (expiration June 19, 2013), and Certified Lead Paint Inspector/Assessor with the California Department of Public Health (DPH), certification numbers I-5511 (expiration June 14, 2013), performed the asbestos and LCP survey on December 18 and 19, 2012. Fifty-two bulk samples of suspect ACM were collected. Four bulk samples of suspect LCP were collected.

### 4.0 INVESTIGATIVE METHODS

#### 4.1 Asbestos

Bulk suspect asbestos samples were collected after first wetting friable materials with a light mist of water. The samples were then cut from the substrate and transferred to labeled containers and sealed. We observed 24 suspect materials during the survey (see Table 1). Sampling locations were distributed throughout the homogeneous areas (spaces where the material was observed).

We relinquished bulk samples for asbestos analysis using standard chain-of-custody documentation. Asbestos content was determined using EPA Test Method 600/R-93/116 for polarized light microscopy (PLM). We requested laboratory analyses to be within a 48-hour turnaround time.

#### 4.2 Lead Paint

Four bulk paint samples were collected using techniques presented in U.S. Department of Housing and Urban Development (HUD) guidelines. Two paint systems were identified during the survey (see Table 2).

*It was not Geocon's intent during this inspection to conduct an evaluation of lead-based paint hazards in accordance with HUD guidelines.*

We relinquished bulk paint samples for lead analysis using standard chain-of-custody documentation. Total lead content was determined using EPA Test Method 6010B. We requested laboratory analyses to be within a 48-hour turnaround time.

## 5.0 INVESTIGATIVE RESULTS

### 5.1 Asbestos

The laboratory analyses for asbestos indicated the following:

- Chrysotile asbestos at concentrations of 2% and 5-7% was detected in samples representing approximately 1,300 square feet nonfriable white with gray streaks 12-inch by 12-inch resilient floor tile and black mastic, respectively, in the conference room and offices.
- Chrysotile asbestos at a concentration of less than (<) 0.25% by PLM point count analysis (400 points) was detected in samples representing approximately 1,400 square feet nonfriable window putty on the exterior windows.
- Chrysotile asbestos at concentrations of <1 – 2% was detected in samples representing joint compound applied to approximately 9,100 square feet of gypsum board wall system in the offices and restrooms. Point count analysis (400 points) of the gypsum board/joint compound composite samples indicated chrysotile asbestos at a concentration of <0.25%. Chrysotile asbestos at concentrations of <0.25 – 1.00% by PLM point count analysis (400 points) was detected in samples of wall texture applied to the gypsum board wall system.
- Chrysotile asbestos at concentrations of <1% and 6-7% was detected in samples representing approximately 550 square feet nonfriable off-white with brown streaks 12-inch by 12-inch resilient floor tile and black mastic, respectively, in the men's restroom and locker room.
- Chrysotile asbestos at a concentration of <1% was detected in samples representing approximately 100 square feet nonfriable white with olive streaks 12-inch by 12-inch resilient floor tile in the storage area entry hall.
- Chrysotile asbestos at a concentration of <1% was detected in samples representing approximately 1,100 square feet nonfriable olive resilient floor tile (lower layer of multi-layered flooring) in the east office and women's restroom.
- Chrysotile asbestos at concentrations of <1 – 2% was detected in samples representing joint compound applied to approximately 7,500 square feet of gypsum board wall system (dividing walls) in the warehouse portion of the building. Point count analysis (400 points) of the gypsum board/joint compound composite samples indicated chrysotile asbestos at a concentration of <0.25%. Chrysotile asbestos at concentrations of 0.25 – 0.50% by PLM point count analysis (400 points) was detected in samples of wall texture applied to the gypsum board wall system.
- Chrysotile asbestos at a concentration of 2% was detected in samples representing approximately 75 square feet nonfriable wall panel and penetration sealant applied to corner joints and wall penetrations of the exterior cementitious wall panels.
- No asbestos was detected in samples of the remaining suspect materials collected during our survey.

Approximately 11,000 square feet of corrugated cementitious wall and roof panels containing 40% chrysotile asbestos (Galston Survey Report) were observed on the exterior walls and roof of the portion of the IERBYS Building included in our limited asbestos survey.

The Galston Survey Report listed approximately 22,000 square feet of corrugated asbestos-cement siding (40% chrysotile) on the exterior walls and roofs of the IERBYS Building, and approximately 2,400 square feet of gray with white streaks 9-inch by 9-inch resilient floor tile (1-5% chrysotile) with black mastic in interior office areas as asbestos-containing materials.

Laboratory results for the asbestos samples are summarized in Table 1. Reproductions of the laboratory report and chain-of-custody documentation are presented in Appendix A.

## **5.2 Lead**

The laboratory analyses for lead paint indicated the following:

- A bulk sample representing intact white interior paint exhibited a total lead concentration of 520 mg/kg, a WET lead concentration of 4.1 mg/l, and a TCLP lead concentration of 0.73 mg/l.
- A bulk sample representing intact silver interior paint exhibited a total lead concentration of 160,000 mg/kg and a TCLP lead concentration of 2,200 mg/l.
- A bulk sample representing approximately 100 square feet of deteriorated tan paint applied to the east warehouse doors exhibited a total lead concentration of 58,000 mg/kg and a TCLP lead concentration of 160 mg/l.
- A bulk sample representing intact tan exterior paint exhibited a total lead concentration of 27,000 mg/kg and a TCLP lead concentration of 5.1 mg/l.

Additionally, approximately 400 square feet of lead flashing was observed affixed to the bottom edges of window frames on the exterior walls of the building.

Geocon paint sample laboratory results are summarized in Table 2. Reproductions of the lead laboratory report and chain-of-custody documentation are presented in Appendix A.

## **6.0 CONCLUSIONS**

### **6.1 Asbestos**

NESHAP regulations do not require that asbestos-containing floor tiles, mastic, or cementitious wall panel sealant (Category I nonfriable/nonhazardous materials), cementitious walls panels (a Category II nonfriable/nonhazardous material), or materials containing 1% or less asbestos (i.e., gypsum board/joint compound, wall texturing, and window putty) identified during our survey and the Galston Survey Report be removed prior to demolition or treated as hazardous waste.

However, the disturbance of these materials is still covered by the Cal/OSHA asbestos standard contained in Title 8, CCR Section 1529. We recommend that a licensed contractor registered with Cal/OSHA for asbestos-related work perform activities that would disturb the sheet packing.

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

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

In accordance with Bay Area Air Quality Management District (BAAQMD) Regulation 11, Rule 2, written notification 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. 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.

## **6.2 Lead**

Intact white interior paint identified during our LCP survey would not be classified as a California hazardous waste or Federal (RCRA) waste based on lead content if stripped, blasted, or otherwise separated from the substrate.

Intact silver interior paint and tan exterior paint identified during our LCP survey would be classified as a California hazardous waste and Federal (RCRA) waste based on lead content if stripped, blasted, or otherwise separated from the substrate.

Deteriorated tan paint on the storage area east exterior doors identified during our LCP survey would be classified as a California hazardous and Federal (RCRA) waste based on lead content.

We recommend that the deteriorated LCP on the project location that meet the criteria of either California or Federal hazardous waste be removed and disposed of prior to renovation, demolition, or other activities that would disturb the paint.

We recommend that the contractor 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 and recycling facilities 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 (including other interior and exterior paint, signage, etc.) be treated as lead-containing for purposes of determining the applicability of the Cal/OSHA lead standard during maintenance, renovation, and demolition activities. This recommendation is based on 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, Section 1532.1(p), written notification to the nearest Cal/OSHA district office is required at least 24 hours prior to certain lead-related work. Compliance and training requirements regarding construction activities where workers may be exposed to lead are presented in Title 8, CCR, Section 1532.1, subsections (e) and (l), respectively. Contractors are responsible for segregating and characterizing waste streams prior to disposal.

**TABLE 1**  
**SUMMARY OF ANALYTICAL LABORATORY TEST RESULTS - ASBESTOS**  
**BURMA ROAD CALTRANS FACILITY**  
**ALAMEDA COUNTY, CALIFORNIA**

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

Sample Group No. ID	Description of Suspect Material	Location	Approximate Quantity	Friable	Site Photo	Asbestos Content
IB-1	White with gray streaks 12-inch by 12-inch resilient floor tile with black mastic	Conference room and offices	1,300 square feet	No	2	2% - Tile 5-7% - Mastic
IB-2	Black baseboard with brown mastic	Conference room and offices	NA	NA	2	ND
IB-3	White baseboard with tan mastic	East office and women's restroom	NA	NA	11	ND
IB-4	White 12-inch by 12-inch acoustic ceiling tile	East office and women's restroom	NA	No	3	ND
IB-5	Window putty	Offices and restrooms (lower windows)	200 square feet	No	4	<0.25%*
IB-6	Gypsum board with joint compound	Conference room and offices	4,200 square feet	NA	5	<0.25% - GB/JC* 0.25 - 0.75% - Texture*
IB-7	Gypsum board with joint compound	Men's restroom	2,100 square feet	NA	6	<0.25% - GB/JC* <0.25 - 1.00% - Texture*
IB-8	Wall panel adhesive	Men's restroom	NA	NA	6	ND
IB-9	Off-white with brown streaks 12-inch by 12-inch resilient floor tile with black mastic	Men's restroom	550 square feet	No	7	<1% - Tile 6-7% - Mastic
IB-10	White with olive streaks 12-inch by 12-inch resilient floor tile with brown mastic	Storage area entry	100 square feet	No	8	<1% - Tile ND - Mastic
IB-11	White 2-foot by 4-foot acoustic ceiling panel	Women's restroom	NA	NA	9	ND
IB-12	Wall texture	East office and hallway	1,000 square feet	NA	10	<0.25%*
IB-13	Gypsum board with joint compound	East office and women's restroom	2,800 square feet	NA	10	<0.25% - GB/JC* <0.25% - Texture*
IB-14	Off-white with brown streaks 12-inch by 12-inch resilient floor tile with brown mastic over olive floor tile (multi-layered flooring)	East office and women's restroom	1,100 square feet	No	11	ND - Tile (upper layer) ND - Mastic (upper layer) <1 - Tile (lower layer) ND - Mastic (lower layer)
IB-15	Paint	Interior walls	NA	NA	12	ND
IB-16	Gypsum board with joint compound	Warehouse dividing walls	7,500 square feet	NA	13	<0.25% - GB/JC* 0.25 - 0.50% - Texture*
IB-17	Window putty	Warehouse windows	1,200 square feet	No	14	<0.25%*
IB-18	Black non-skid coating	Steel Erection Shop, mezzanine floor	NA	NA	15	ND

**TABLE 1**  
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**BURMA ROAD CALTRANS FACILITY**  
**ALAMEDA COUNTY, CALIFORNIA**

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

<b>Sample Group No. ID</b>	<b>Description of Suspect Material</b>	<b>Location</b>	<b>Approximate Quantity</b>	<b>Friable</b>	<b>Site Photo</b>	<b>Asbestos Content</b>
<b>IB-19</b>	<b>Wall panel sealant</b>	<b>Exterior corrugated cementitious panel corner joints</b>	<b>25 square feet</b>	<b>No</b>	<b>16</b>	<b>2%</b>
IB-20	Door frame sealant	East warehouse door frame	NA	NA	17	ND
IB-21	Fabric curtains	Carpentry Shop	NA	NA	18	ND
<b>IB-22</b>	<b>Wall penetration sealant</b>	<b>Exterior corrugated cementitious panels at penetrations</b>	<b>50 square feet</b>	<b>No</b>	<b>19</b>	<b>2%</b>
IB-23	Fire door core	Conference room	NA	NA	20	ND
IB-24	Fire hose	Storage area	NA	NA	21	ND

Notes:

- NA = Not applicable
- ND = No asbestos fibers detected
- < = Less than
- GB/JC = gypsumboard and joint compound composite analysis
- \* = Asbestos detected using PLM Point Count Methodology (400 points)

**TABLE 2**  
**SUMMARY OF ANALYTICAL LABORATORY TEST RESULTS - PAINT**  
**BURMA ROAD CALTRANS FACILITY**  
**ALAMEDA COUNTY, CALIFORNIA**

**Total and Soluble Lead**

<b>Sample ID</b>	<b>Paint Description</b>	<b>Location</b>	<b>Approximate Quantity Peeling &amp; Flaking</b>	<b>Site Photo</b>	<b>Total Lead (mg/kg)</b>	<b>WET Lead (mg/l)</b>	<b>TCLP Lead (mg/l)</b>
IB-P1	White paint	Interior walls (offices)	Intact	5	520	4.1	0.73
IB-P2	Silver paint	Interior walls (warehouse area)	Intact	12	160,000	---	2,200
IB-P3	Tan paint	Storage area east door	100 square feet	20	58,000	---	160
IB-P4	Tan paint	Exterior walls	Intact	4	27,000	---	5.1

Notes:

mg/kg = milligrams per kilogram

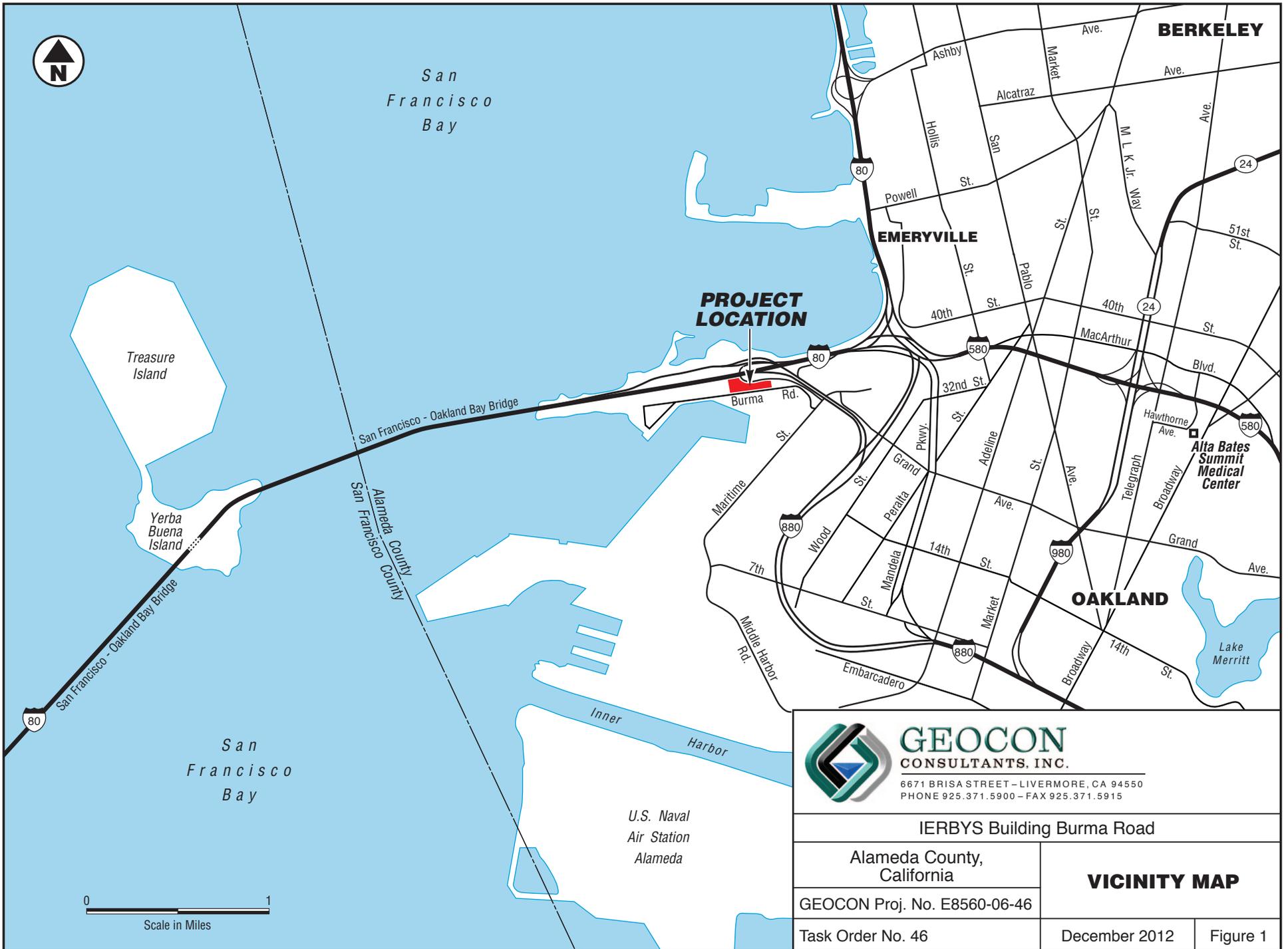
WET = Waste Extraction Test

TCLP = Toxicity Characteristic Leaching Procedure

mg/l = milligrams per liter

--- = Not analyzed

< = Less than



**GEOCON**  
CONSULTANTS, INC.

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PHONE 925.371.5900 - FAX 925.371.5915

IERBYS Building Burma Road

Alameda County,  
California

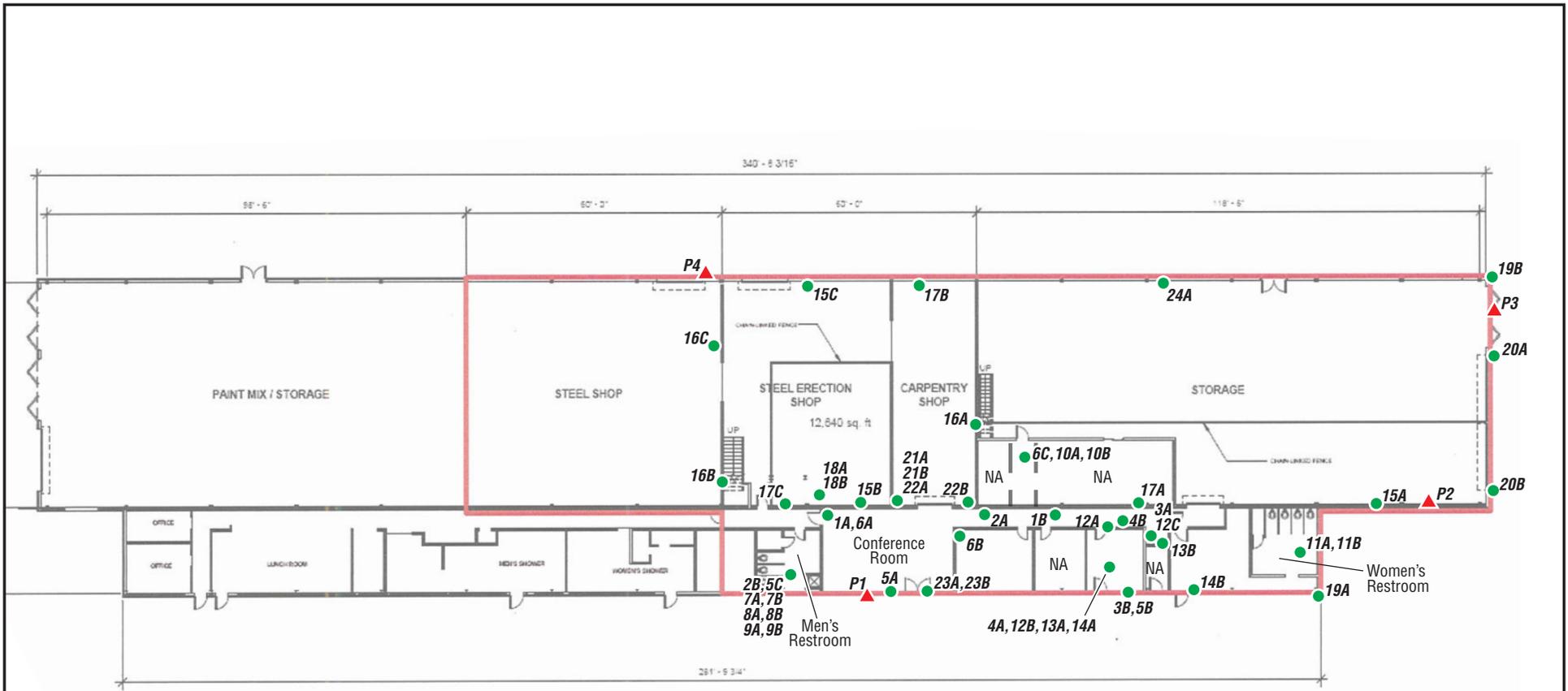
**VICINITY MAP**

GEOCON Proj. No. E8560-06-46

Task Order No. 46

December 2012

Figure 1



NOT TO SCALE

LEGEND:

- Proposed Improvement Limits
- Approximate Asbestos Sample Location
- ▲ Approximate Paint Sample Location
- NA Room Not Accessible

 <b>GEOCON</b> CONSULTANTS, INC. <small>6671 BRISA STREET - LIVERMORE, CA 94550          PHONE 925.371.5900 - FAX 925.371.5915</small>	
IERBYS Building Burma Road	
Alameda County, California	<b>SITE PLAN</b>
GEOCON Proj. No. E8560-06-46	
Task Order No. 46	December 2012    Figure 2



**Photo 1 – IERBYS Building, Burma Road in Alameda County, California**



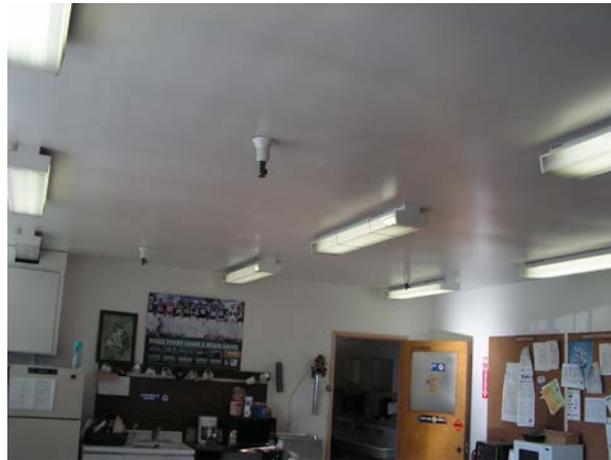
**Photo 2 – Asbestos-containing white with gray streaks 12-inch by 12-inch resilient floor tiles and mastic in the conference room and offices**



**Photo 3 – Acoustical ceiling tiles in the east office area and women’s restroom**



**Photo 4 – Asbestos-containing window putty on the lower windows**



**Photo 5 – Gypsum board wall system (asbestos-containing joint compound and wall texture) and interior paint in the conference room and offices**



**Photo 6 – Wall panel adhesive and gypsum board wall system (asbestos-containing joint compound and wall texture) in the men's restroom and locker room**



**Photo 7 – Asbestos-containing off-white with brown streaks 12-inch by 12-inch resilient floor tile with black mastic in the men’s restroom and locker room**



**Photo 8 – Asbestos-containing white with olive streaks 12-inch by 12-inch resilient floor tile in the storage area entry hall**



**Photo 9 – White 2-foot by 4-foot acoustic ceiling panels in the women’s restroom**



**Photo 10 – Gypsum board wall system (asbestos-containing joint compound and wall texture) in the east office and women’s restroom**



**Photo 11 – Off-white with brown streaks 12-inch by 12-inch resilient floor tile over asbestos-containing olive floor tile (multi-layered flooring) in the east office and women’s restroom**



**Photo 12 – Interior silver paint (warehouse areas)**



**Photo 13 – Gypsum board wall system (asbestos-containing joint compound and wall texture) in the warehouse areas**



**Photo 14 – Asbestos-containing window putty on the warehouse area windows**



**Photo 15 – Black non-skid coating on the Steel Erection Shop mezzanine floor**



**Photo 16 – Asbestos-containing cementitious panel sealant on the exterior walls**



**Photo 17 – White door frame sealant on the storage area east wooden doors**



**Photo 18 – Canvas curtains in the Carpentry Shop**



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**PHOTOGRAPHS 16, 17, & 18**

IERBYS Building, Burma Road  
Alameda County, California

E8560-06-46

Task Order No. 46

December 2012



**Photo 19 – Asbestos-containing cementitious panel sealant on the interior walls**



**Photo 20 – Fire door at the conference room entrance**



**Photo 21 – Fire hose in the warehouse areas**



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**PHOTOGRAPHS 19, 20, & 21**

IERBYS Building, Burma Road  
Alameda County, California

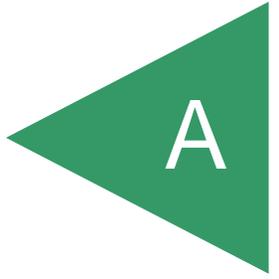
E8560-06-46

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APPENDIX

A





# EMSL Analytical, Inc

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EMSL Order:	091216504
CustomerID:	GECN21
CustomerPO:	E8560-06-46
ProjectID:	E8560-06-**

Attn: **Chris Giuntoli**  
**Geocon Consultants, Inc.**  
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Project: **E8560-06-46**

Phone: (925) 371-5900  
 Fax: (925) 371-5915  
 Received: 12/18/12 2:30 PM  
 Analysis Date: 12/20/2012  
 Collected: 12/18/2012

## Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 and/or EPA 600/M4-82-020 Method(s) using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
IB 1-A -Floor Tile <i>091216504-0001</i>		White Non-Fibrous Homogeneous		98% Non-fibrous (other)	2% Chrysotile
IB 1-A -Mastic <i>091216504-0001A</i>		Black Non-Fibrous Homogeneous		95% Non-fibrous (other)	5% Chrysotile
IB 1-B -Floor Tile <i>091216504-0002</i>		Gray/White Non-Fibrous Homogeneous		98% Non-fibrous (other)	2% Chrysotile
IB 1-B -Mastic <i>091216504-0002A</i>		Black Non-Fibrous Homogeneous		93% Non-fibrous (other)	7% Chrysotile
IB 2-A -Baseboard <i>091216504-0003</i>		Black Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
IB 2-A -Mastic <i>091216504-0003A</i>		Brown Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
IB 2-B -Baseboard <i>091216504-0004</i>		Black Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
IB 2-B -Mastic-1 <i>091216504-0004A</i>		Brown Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected

Analyst(s) \_\_\_\_\_

*Jennifer Keeling (47)*  
*Matthew Batongbacal (13)*

Baojia Ke, Laboratory Manager  
 or other approved signatory

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Initial report from 12/20/2012 14:26:41



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Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
IB 2-B -Mastic-2 <i>091216504-0004B</i>		Yellow Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
IB 3-A -Baseboard <i>091216504-0005</i>		White Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
IB 3-A -Mastic <i>091216504-0005A</i>		Yellow Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
IB 3-B -Baseboard <i>091216504-0006</i>		White Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
IB 3-B -Mastic <i>091216504-0006A</i>		Yellow Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
IB 4-A -Ceiling Tile <i>091216504-0007</i>		Brown/White Fibrous Homogeneous	95% Cellulose	5% Non-fibrous (other)	None Detected
IB 4-B -Ceiling Tile <i>091216504-0008</i>		Brown Fibrous Homogeneous	90% Cellulose	10% Non-fibrous (other)	None Detected
IB 5-A -Window Putty <i>091216504-0009</i>		Gray Non-Fibrous Homogeneous		100% Non-fibrous (other)	<1% Chrysotile

Analyst(s)  
 Jennifer Keeling (47)  
 Matthew Batongbacal (13)

Baojia Ke, Laboratory Manager  
 or other approved signatory

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Initial report from 12/20/2012 14:26:41



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Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
IB 5-B -Window Putty <i>091216504-0010</i>		Gray/Green Non-Fibrous  Homogeneous		100% Non-fibrous (other)	None Detected
Not part of a homogeneous set					
IB 6-A -Gypsum Board <i>091216504-0011</i>		Brown/White Fibrous  Homogeneous	12% Cellulose	88% Non-fibrous (other)	None Detected
IB 6-A -Joint Compound <i>091216504-0011A</i>		White Non-Fibrous  Homogeneous		98% Non-fibrous (other)	2% Chrysotile
IB 6-A -Texture <i>091216504-0011B</i>		White Non-Fibrous Homogeneous		98% Non-fibrous (other)	2% Chrysotile
IB 6-B -Gypsum Board <i>091216504-0012</i>		Brown/White Fibrous  Homogeneous	12% Cellulose	88% Non-fibrous (other)	None Detected
IB 6-B -Joint Compound <i>091216504-0012A</i>		White Non-Fibrous  Homogeneous		98% Non-fibrous (other)	2% Chrysotile
IB 6-B -Texture <i>091216504-0012B</i>		White Non-Fibrous Homogeneous		98% Non-fibrous (other)	2% Chrysotile

Analyst(s)  
 Jennifer Keeling (47)  
 Matthew Batongbacal (13)

Baojia Ke, Laboratory Manager  
 or other approved signatory

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Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
IB6-C -Gypsum Board <i>091216504-0013</i>		Non-Fibrous  Heterogeneous	20% Cellulose	80% Non-fibrous (other)	None Detected
Sample may not be in a homegenous group with previous samples.					
IB6-C -Joint Compound <i>091216504-0013A</i>		White Non-Fibrous  Homogeneous		100% Non-fibrous (other)	None Detected
IB7-A -Gypsum Board <i>091216504-0014</i>		Brown/White Fibrous  Homogeneous	10% Cellulose	90% Non-fibrous (other)	None Detected
IB7-A -Joint Compound <i>091216504-0014A</i>		White Non-Fibrous  Homogeneous		98% Non-fibrous (other)	2% Chrysotile
IB7-A -Texture <i>091216504-0014B</i>		White Non-Fibrous Homogeneous		98% Non-fibrous (other)	2% Chrysotile
IB7-B -Gypsum Board <i>091216504-0015</i>		Brown/White Fibrous  Homogeneous	12% Cellulose	88% Non-fibrous (other)	None Detected
IB7-B -Joint Compound <i>091216504-0015A</i>		White Non-Fibrous  Homogeneous		98% Non-fibrous (other)	2% Chrysotile

Analyst(s)  
 \_\_\_\_\_  
*Jennifer Keeling (47)*  
*Matthew Batongbacal (13)*

\_\_\_\_\_  
 Baojia Ke, Laboratory Manager  
 or other approved signatory

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			% Fibrous	% Non-Fibrous	% Type
IB7-B -Texture <i>091216504-0015B</i>		White Non-Fibrous Homogeneous		98% Non-fibrous (other)	2% Chrysotile
IB8-A -Adhesive <i>091216504-0016</i>		Beige Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
IB8-B -Adhesive <i>091216504-0017</i>		Beige Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
IB9-A -Floor Tile <i>091216504-0018</i>		White Non-Fibrous Homogeneous		100% Non-fibrous (other)	<1% Chrysotile
IB9-A -Mastic <i>091216504-0018A</i>		Black Non-Fibrous Homogeneous		94% Non-fibrous (other)	6% Chrysotile
IB9-B -Floor Tile <i>091216504-0019</i>		White Non-Fibrous Homogeneous		100% Non-fibrous (other)	<1% Chrysotile
IB9-B -Mastic <i>091216504-0019A</i>		Black Non-Fibrous Homogeneous		93% Non-fibrous (other)	7% Chrysotile
IB10-A -Floor Tile <i>091216504-0020</i>		White Non-Fibrous Homogeneous		100% Non-fibrous (other)	<1% Chrysotile

Analyst(s)

*Jennifer Keeling (47)*

*Matthew Batongbacal (13)*

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 12/20/2012 14:26:41



# 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](mailto:sanleandrolab@emsl.com)

EMSL Order:	091216504
CustomerID:	GECN21
CustomerPO:	E8560-06-46
ProjectID:	E8560-06-**

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

**Livermore, CA 94550**

Project: **E8560-06-46**

Phone: (925) 371-5900  
 Fax: (925) 371-5915  
 Received: 12/18/12 2:30 PM  
 Analysis Date: 12/20/2012  
 Collected: 12/18/2012

## Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 and/or EPA 600/M4-82-020 Method(s) using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
IB10-A -Mastic <i>091216504-0020A</i>		Brown Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
IB10-B -Floor Tile <i>091216504-0021</i>		White Non-Fibrous Homogeneous		100% Non-fibrous (other)	<1% Chrysotile
IB10-B -Mastic <i>091216504-0021A</i>		Black/Yellow Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
Inseparable mastic layers included in analysis					
IB11-A -Ceiling Tile <i>091216504-0022</i>		Gray Fibrous Homogeneous	45% Cellulose 30% Min. Wool	25% Non-fibrous (other)	None Detected
IB11-B -Ceiling Tile <i>091216504-0023</i>		Gray Fibrous Homogeneous	45% Cellulose 30% Min. Wool	25% Non-fibrous (other)	None Detected
IB12-A Texture <i>091216504-0024</i>		White Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
IB12-B -Texture <i>091216504-0025</i>		White Non-Fibrous Homogeneous		100% Non-fibrous (other)	<1% Chrysotile
IB12-C -Texture <i>091216504-0026</i>		White Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected

Analyst(s)  
 Jennifer Keeling (47)  
 Matthew Batongbacal (13)

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 12/20/2012 14:26:41



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EMSL Order:	091216504
CustomerID:	GECN21
CustomerPO:	E8560-06-46
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Attn: **Chris Giuntoli**  
**Geocon Consultants, Inc.**  
**6671 Brisa Street**

**Livermore, CA 94550**

Project: **E8560-06-46**

Phone: (925) 371-5900  
 Fax: (925) 371-5915  
 Received: 12/18/12 2:30 PM  
 Analysis Date: 12/20/2012  
 Collected: 12/18/2012

## Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 and/or EPA 600/M4-82-020 Method(s) using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
IB13-A -Gypsum Board <i>091216504-0027</i>		Brown/White Fibrous Homogeneous	12% Cellulose	88% Non-fibrous (other)	None Detected
IB13-A -Joint Compound <i>091216504-0027A</i>		White Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
IB13-A -Texture <i>091216504-0027B</i>		White Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
IB13-B -Gypsum Board <i>091216504-0028</i>		Brown/White Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (other)	None Detected
IB13-B -Joint Compound <i>091216504-0028A</i>		White Non-Fibrous Homogeneous		100% Non-fibrous (other)	<1% Chrysotile
IB13-B -Texture <i>091216504-0028B</i>		White Non-Fibrous Homogeneous		100% Non-fibrous (other)	<1% Chrysotile
IB14-A -Floor Tile-1 <i>091216504-0029</i>		White Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected

Analyst(s)  
 Jennifer Keeling (47)  
 Matthew Batongbacal (13)

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 12/20/2012 14:26:41



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EMSL Order:	091216504
CustomerID:	GECN21
CustomerPO:	E8560-06-46
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Attn: **Chris Giuntoli**  
**Geocon Consultants, Inc.**  
**6671 Brisa Street**

**Livermore, CA 94550**

Project: **E8560-06-46**

Phone: (925) 371-5900  
 Fax: (925) 371-5915  
 Received: 12/18/12 2:30 PM  
 Analysis Date: 12/20/2012  
 Collected: 12/18/2012

## Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 and/or EPA 600/M4-82-020 Method(s) using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
IB14-A -Mastic-1 <i>091216504-0029A</i>		Yellow Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
IB14-A -Floor Tile-2 <i>091216504-0029B</i>		Gray Non-Fibrous Homogeneous		100% Non-fibrous (other)	<1% Chrysotile
IB14-A -Mastic-2 <i>091216504-0029C</i>		Yellow Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
IB14 B -Floor Tile-1 <i>091216504-0030</i>		White Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
IB14 B -Mastic-1 <i>091216504-0030A</i>		Yellow Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
IB14 B -FloorTile-2 <i>091216504-0030B</i>		Gray Non-Fibrous Homogeneous		100% Non-fibrous (other)	<1% Chrysotile
IB14 B -Mastic-2 <i>091216504-0030C</i>		Yellow Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected

Analyst(s) \_\_\_\_\_

*Jennifer Keeling (47)*  
*Matthew Batongbacal (13)*

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 12/20/2012 14:26:41

**EMSL Analytical, Inc**

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<http://www.emsl.com>[sanleandrolab@emsl.com](mailto:sanleandrolab@emsl.com)

EMSL Order:	091216504
CustomerID:	GECN21
CustomerPO:	E8560-06-46
ProjectID:	E8560-06-**

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

**Livermore, CA 94550**Project: **E8560-06-46**

Phone: (925) 371-5900  
 Fax: (925) 371-5915  
 Received: 12/18/12 2:30 PM  
 Analysis Date: 12/27/2012  
 Collected: 12/18/2012

**Test Report: Test Report: Asbestos Analysis of Bulk Material via EPA 600/R-93/116  
 and/or EPA 600/M4-82-020. Quantitation using 400 Point Count Procedure**

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
IB 5-A -Window Putty 091216504-0009		Gray Non-Fibrous Homogeneous		100.00% Non-fibrous (other)	<0.25% Chrysotile
IB 6-A -Texture 091216504-0011B		White Non-Fibrous Homogeneous		99.25% Non-fibrous (other)	0.75% Chrysotile
IB 6-A -GB/JC COMPOSITE 091216504-0011C		White Non-Fibrous Heterogeneous		100.00% Non-fibrous (other)	<0.25% Chrysotile
IB 6-B -Texture 091216504-0012B		White Non-Fibrous Homogeneous		99.75% Non-fibrous (other)	0.25% Chrysotile
IB 6-B -GB/JC COMPOSITE 091216504-0012C		White Non-Fibrous Heterogeneous		100.00% Non-fibrous (other)	<0.25% Chrysotile
IB7-A -Texture 091216504-0014B		White Non-Fibrous Homogeneous		99.00% Non-fibrous (other)	1.00% Chrysotile
IB7-A GB/JC COMPOSITE 091216504-0014C		White Non-Fibrous Heterogeneous		100.00% Non-fibrous (other)	<0.25% Chrysotile

## Analyst(s)

Adam C. Fink (11)

Matthew Batongbacal (1)

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 12/21/2012 22:34:54



# EMSL Analytical, Inc

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[sanleandrolab@emsl.com](mailto:sanleandrolab@emsl.com)

EMSL Order:	091216504
CustomerID:	GECN21
CustomerPO:	E8560-06-46
ProjectID:	E8560-06-**

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

**Livermore, CA 94550**

Project: **E8560-06-46**

Phone: (925) 371-5900  
 Fax: (925) 371-5915  
 Received: 12/18/12 2:30 PM  
 Analysis Date: 12/27/2012  
 Collected: 12/18/2012

## Test Report: Test Report: Asbestos Analysis of Bulk Material via EPA 600/R-93/116 and/or EPA 600/M4-82-020. Quantitation using 400 Point Count Procedure

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
IB7-B -Texture 091216504-0015B		White Non-Fibrous Homogeneous		100.00% Non-fibrous (other)	<0.25% Chrysotile
IB7-B -GB/JC COMPOSITE 091216504-0015C		White Non-Fibrous Heterogeneous		100.00% Non-fibrous (other)	<0.25% Chrysotile
IB12-B -Texture 091216504-0025		White Non-Fibrous Homogeneous		100.00% Non-fibrous (other)	<0.25% Chrysotile
IB13-B -Texture 091216504-0028B		White Non-Fibrous Homogeneous		100.00% Non-fibrous (other)	<0.25% Chrysotile
IB13-B -GB/JC COMPOSITE 091216504-0028C		White Non-Fibrous Heterogeneous		100.00% Non-fibrous (other)	<0.25% Chrysotile

Analyst(s)

Adam C. Fink (11)

Matthew Batongbacal (1)

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 12/21/2012 22:34:54



EMSL ANALYTICAL, INC.  
LABORATORY PRODUCTS TRAINING

**Asbestos Chain of Custody**  
EMSL Order Number (Lab Use Only):

091216504

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:  Same  Different  
If Bill to is Different note instructions in Comments\*\*  
Street: 6671 BRISA ST Third Party Billing requires written authorization from third party  
City: LIVERMORE State/Province: CA Zip/Postal Code: 94550 Country:  
Report To (Name): CHRIS GIUNTOLI Fax #:  
Telephone #: 925-371-5900 Email Address: GIUNTOLI@GEOCONINC.COM  
Project Name/Number: E8560-06-46  
Please Provide Results:  Fax  Email Purchase Order: U.S. State Samples Taken:

Turnaround Time (TAT) Options\* - Please Check  
 3 Hour  6 Hour  24 Hour  48 Hour  72 Hour  96 Hour  1 Week  2 Week  
 \*For TEM Air 3 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.

<p><b>PCM - Air</b></p> <input type="checkbox"/> NIOSH 7400 <input type="checkbox"/> w/ OSHA 8hr. TWA <p><b>PLM - Bulk (reporting limit)</b></p> <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%)	<p><b>TEM - Air</b> <input type="checkbox"/> 4-4.5hr TAT (AHERA only)</p> <input type="checkbox"/> AHERA 40 CFR, Part 763 <input type="checkbox"/> NIOSH 7402 <input type="checkbox"/> EPA Level II <input type="checkbox"/> ISO 10312 <p><b>TEM - Bulk</b></p> <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 <p><b>TEM - Water:</b> EPA 100.2                  Fibers &gt;10µm <input type="checkbox"/> Waste <input type="checkbox"/> Drinking                  All Fiber Sizes <input type="checkbox"/> Waste <input type="checkbox"/> Drinking</p>	<p><b>TEM- Dust</b></p> <input type="checkbox"/> Microvac - ASTM D 5755 <input type="checkbox"/> Wipe - ASTM D6480 <input type="checkbox"/> Carpet Sonication (EPA 600/J-93/167) <p><b>Soil/Rock/Vermiculite</b></p> <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) <p><b>Other:</b></p> <input type="checkbox"/>
---	--	--

Check For Positive Stop - Clearly Identify Homogenous Group

Samplers Name: CHRIS GIUNTOLI Samplers Signature: [Signature]

Sample #	Sample Description	Volume/Area (Air) HA # (Bulk)	Date/Time Sampled
<u>IB-1A-1B</u>	<u>WHITE w/ GRAY STREAKS RESILIENT FLOOR TILE w/ BLACK MASTIC (12x12)</u>		<u>12/18/12</u>
<u>IB-2A-2B</u>	<u>BLACK BASEBOARD w/ BROWN MASTIC</u>		
<u>IB-3A-3B</u>	<u>WHITE BASEBOARD w/ TAN MASTIC</u>		
<u>IB-4A-4B</u>	<u>WHITE 12x12 PERFORATED ACOUSTIC CEILING TILE</u>		
<u>IB-5A-5B</u>	<u>WINDOW PUTTY</u>		
<u>IB-6A-6C</u>	<u>GYP SUMBCARD w/ JOINT COMPOUND</u>		
<u>IB-7A-7B</u>	↓		
<u>IB-8A-8B</u>	<u>WALL PANEL ADHESIVE</u>		↓

Client Sample # (s): Relinquished (Client): [Signature] Date: 12/18/12 Total # of Samples: 8  
 Received (Lab): [Signature] Date: RECEIVED DEC 18 2012 1430 Time: 4429 D10  
 Comments/Special Instructions:



EMSL ANALYTICAL, INC.  
LABORATORY • PRODUCTS • TRAINING

### Asbestos Chain of Custody

EMSL Order Number (Lab Use Only):

202015190

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

Additional Pages of the Chain of Custody are only necessary if needed for additional sample information

Sample #	Sample Description	Volume/Area (Air) HA # (Bulk)	Date/Time Sampled
IB-9A-9B	OFF WHITE w/ BROWN STREAKS 12x12 RESILIENT FLOOR TILE w/ BLACK MASTIC		12/18/12
IB-10A-10B	WHITE w/ OLIVE STREAKS 12x12 RESILIENT FLOOR TILE w/ BROWN MASTIC		↓
IB-11A-11B	WHITE 2x4 ACOUSTIC CEILING PANEL		
IB-12A-12C	WALL TEXTURING		
IB-13A-13B	GYPSUM BOARD w/ JOINT COMPOUND		
IB-14A-14B	OFF WHITE w/ BROWN STREAKS 12x12 RESILIENT FLOOR TILE w/ BROWN MASTIC OVER SECOND OLIVE FLOOR TILE		
*Comments/Special Instructions:			RECEIVED DEC 18 2012



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EMSL Order: 091216564

CustomerID: GECN21

CustomerPO: E8560-06-46

ProjectID: E8560-06-\*\*

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

**Livermore, CA 94550**

Project: **E8560-06-46**

Phone: (925) 371-5900  
Fax: (925) 371-5915  
Received: 12/19/12 2:00 PM  
Analysis Date: 12/21/2012  
Collected: 12/19/2012

## Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 and/or EPA 600/M4-82-020 Method(s) using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
IB 15-A -Paint-1 <i>091216564-0001</i>		Silver Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
IB 15-A -Paint-2 <i>091216564-0001A</i>		Orange Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
IB 15-B -Paint-1 <i>091216564-0002</i>		Silver Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
IB 15-B -Paint-2 <i>091216564-0002A</i>		Orange Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
IB 15-C -Paint-1 <i>091216564-0003</i>		Silver Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
IB 15-C -Paint-2 <i>091216564-0003A</i>		Orange Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
IB 16-A -Gypsum Board <i>091216564-0004</i>		Brown/White Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (other)	None Detected
IB 16-A -Joint Compound <i>091216564-0004A</i>		White Non-Fibrous Homogeneous		98% Non-fibrous (other)	2% Chrysotile

Analyst(s)

*Jennifer Keeling (31)*

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 12/21/2012 13:34:17



# 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](mailto:sanleandrolab@emsl.com)

EMSL Order:	091216564
CustomerID:	GECN21
CustomerPO:	E8560-06-46
ProjectID:	E8560-06-**

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

**Livermore, CA 94550**

Project: **E8560-06-46**

Phone: (925) 371-5900  
 Fax: (925) 371-5915  
 Received: 12/19/12 2:00 PM  
 Analysis Date: 12/21/2012  
 Collected: 12/19/2012

## Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 and/or EPA 600/M4-82-020 Method(s) using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
IB 16-A -Texture <i>091216564-0004B</i>		White Non-Fibrous Homogeneous		100% Non-fibrous (other)	<1% Chrysotile
IB 16-B -Gypsum Board <i>091216564-0005</i>		Brown/White Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (other)	None Detected
IB 16-B -Joint Compound <i>091216564-0005A</i>		White Non-Fibrous Homogeneous		100% Non-fibrous (other)	<1% Chrysotile
IB 16-B -Texture <i>091216564-0005B</i>		White Non-Fibrous Homogeneous		100% Non-fibrous (other)	<1% Chrysotile
IB 16-C -Gypsum Board <i>091216564-0006</i>		Brown/White Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (other)	None Detected
IB 16-C -Joint Compound <i>091216564-0006A</i>		White Non-Fibrous Homogeneous		100% Non-fibrous (other)	<1% Chrysotile
IB 16-C -Texture <i>091216564-0006B</i>		White Non-Fibrous Homogeneous		100% Non-fibrous (other)	<1% Chrysotile

Analyst(s)  
 \_\_\_\_\_  
 Jennifer Keeling (31)

\_\_\_\_\_  
 Baojia Ke, Laboratory Manager  
 or other approved signatory

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Initial report from 12/21/2012 13:34:17



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EMSL Order:	091216564
CustomerID:	GECN21
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Attn: **Chris Giuntoli**  
**Geocon Consultants, Inc.**  
**6671 Brisa Street**

**Livermore, CA 94550**

Project: **E8560-06-46**

Phone: (925) 371-5900  
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 Received: 12/19/12 2:00 PM  
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 Collected: 12/19/2012

## Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 and/or EPA 600/M4-82-020 Method(s) using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
IB 17-A -Window Putty <i>091216564-0007</i>		Gray Non-Fibrous Homogeneous		100% Non-fibrous (other)	<1% Chrysotile
IB 17-B -Window Putty <i>091216564-0008</i>		Gray Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
IB 17-B -Compound <i>091216564-0008A</i>		Gray/Silver Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
IB 17-C -Window Putty <i>091216564-0009</i>		Gray Non-Fibrous Homogeneous		100% Non-fibrous (other)	<1% Chrysotile
IB 18-A -Non Skid Coating <i>091216564-0010</i>		Gray/Black Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
IB 18-B -Non Skid Coating <i>091216564-0011</i>		Gray/Black Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
IB 19-A -Sealant <i>091216564-0012</i>		Gray Non-Fibrous Homogeneous		98% Non-fibrous (other)	2% Chrysotile

Analyst(s)

*Jennifer Keeling (31)*

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

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EMSL Order:	091216564
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Attn: **Chris Giuntoli**  
**Geocon Consultants, Inc.**  
**6671 Brisa Street**

**Livermore, CA 94550**

Project: **E8560-06-46**

Phone: (925) 371-5900  
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 Collected: 12/19/2012

## Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 and/or EPA 600/M4-82-020 Method(s) using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
IB19-B -Sealant <i>091216564-0013</i>		Gray Non-Fibrous Homogeneous		98% Non-fibrous (other)	2% Chrysotile
IB20-A -Sealant <i>091216564-0014</i>		White Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
IB20-B -Sealant <i>091216564-0015</i>		White Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
IB21-A -Fabric Curtains <i>091216564-0016</i>		Beige Fibrous Homogeneous	95% Cellulose	5% Non-fibrous (other)	None Detected
IB21-B -Fabric Curtains <i>091216564-0017</i>		Beige Fibrous Homogeneous	95% Cellulose	5% Non-fibrous (other)	None Detected
IB22-A -Sealant <i>091216564-0018</i>		Gray/Silver Non-Fibrous Homogeneous		98% Non-fibrous (other)	2% Chrysotile
IB22-B -Sealant <i>091216564-0019</i>		Gray/Silver Non-Fibrous Homogeneous		98% Non-fibrous (other)	2% Chrysotile

Analyst(s)

*Jennifer Keeling (31)*

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 12/21/2012 13:34:17



# EMSL Analytical, Inc

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<http://www.emsl.com>

[sanleandrolab@emsl.com](mailto:sanleandrolab@emsl.com)

EMSL Order:	091216564
CustomerID:	GECN21
CustomerPO:	E8560-06-46
ProjectID:	E8560-06-**

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

**Livermore, CA 94550**

Project: **E8560-06-46**

Phone: (925) 371-5900  
 Fax: (925) 371-5915  
 Received: 12/19/12 2:00 PM  
 Analysis Date: 12/21/2012  
 Collected: 12/19/2012

## Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 and/or EPA 600/M4-82-020 Method(s) using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
IB23-A -Fire Door Core <i>091216564-0020</i>		Yellow Fibrous  Homogeneous	97% Glass	3% Non-fibrous (other)	<b>None Detected</b>
IB23-B -Fire Door Core <i>091216564-0021</i>		Yellow Fibrous  Homogeneous	97% Glass	3% Non-fibrous (other)	<b>None Detected</b>

Analyst(s) \_\_\_\_\_  
*Jennifer Keeling (31)*

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 12/21/2012 13:34:17

**EMSL Analytical, Inc**

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EMSL Order:	091216564
CustomerID:	GECN21
CustomerPO:	E8560-06-46
ProjectID:	E8560-06-**

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

**Livermore, CA 94550**Project: **E8560-06-46**

Phone: (925) 371-5900  
 Fax: (925) 371-5915  
 Received: 12/19/12 2:00 PM  
 Analysis Date: 12/26/2012  
 Collected: 12/19/2012

**Test Report: Test Report: Asbestos Analysis of Bulk Material via EPA 600/R-93/116  
 and/or EPA 600/M4-82-020. Quantitation using 400 Point Count Procedure**

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
IB 16-A -Texture 091216564-0004B		White Non-Fibrous Homogeneous		99.50% Non-fibrous (other)	<b>0.50% Chrysotile</b>
IB 16-A -GB/JC COMPOSITE 091216564-0004C		White Fibrous Homogeneous		100.00% Non-fibrous (other)	<b>&lt;0.25% Chrysotile</b>
IB 16-B -Texture 091216564-0005B		White Fibrous Homogeneous		99.75% Non-fibrous (other)	<b>0.25% Chrysotile</b>
IB 16-B -GB/JC COMPOSITE 091216564-0005C		White Fibrous Homogeneous		100.00% Non-fibrous (other)	<b>&lt;0.25% Chrysotile</b>
IB 16-C -Texture 091216564-0006B		White Non-Fibrous Homogeneous		99.50% Non-fibrous (other)	<b>0.50% Chrysotile</b>
IB 16-C -GB/JC COMPOSITE 091216564-0006C		White Fibrous Homogeneous		100.00% Non-fibrous (other)	<b>&lt;0.25% Chrysotile</b>
IB 17-A -Window Putty 091216564-0007		Gray Non-Fibrous Homogeneous		100.00% Non-fibrous (other)	<b>&lt;0.25% Chrysotile</b>

Analyst(s)

Matthew Batongbacal (8)

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 12/26/2012 11:57:10

**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](mailto:sanleandrolab@emsl.com)

EMSL Order:	091216564
CustomerID:	GECN21
CustomerPO:	E8560-06-46
ProjectID:	E8560-06-**

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

**Livermore, CA 94550**Project: **E8560-06-46**

Phone: (925) 371-5900  
 Fax: (925) 371-5915  
 Received: 12/19/12 2:00 PM  
 Analysis Date: 12/26/2012  
 Collected: 12/19/2012

**Test Report: Test Report: Asbestos Analysis of Bulk Material via EPA 600/R-93/116  
 and/or EPA 600/M4-82-020. Quantitation using 400 Point Count Procedure**

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
IB 17-C -Window Putty 091216564-0009		Gray Non-Fibrous Homogeneous		100.00% Non-fibrous (other)	<0.25% Chrysotile

Analyst(s)

Matthew Batongbacal (8)

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 12/26/2012 11:57:10



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<http://www.emsl.com>

[sanleandrolab@emsl.com](mailto:sanleandrolab@emsl.com)

EMSL Order:	091216781
CustomerID:	GECN21
CustomerPO:	E8560-06-46
ProjectID:	E8560-06-**

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

**Livermore, CA 94550**

Project: **E8560-06-46**

Phone: (925) 371-5900  
Fax: (925) 371-5915  
Received: 12/27/12 8:00 AM  
Analysis Date: 12/27/2012  
Collected: 12/19/2012

**Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 and/or EPA 600/M4-82-020 Method(s) using Polarized Light Microscopy**

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
IB-24A-Fire Hose Insulation  091216781-0001	FIRE HOSE	Tan Fibrous  Homogeneous	95% Cellulose	5% Non-fibrous (other)	None Detected

Analyst(s) \_\_\_\_\_  
*Matthew Batongbacal (1)*

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 12/27/2012 15:39:00



EMSL ANALYTICAL, INC.  
LABORATORY PRODUCTS TRAINING

### Asbestos Chain of Custody

EMSL Order Number (Lab Use Only):

091216781

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

Company : <b>GEOCON</b>		EMSL-Bill to: <input checked="" type="checkbox"/> Same <input type="checkbox"/> Different <small>If Bill to is Different note instructions in Comments**</small>	
Street: <b>6671 BRISA ST</b>		Third Party Billing requires written authorization from third party	
City: <b>LIVERMORE</b>	State/Province: <b>CA</b>	Zip/Postal Code: <b>94531</b>	Country:
Report To (Name): <b>CHRIS GIUNTOLI</b>		Fax #:	
Telephone #: <b>775-685-6116</b>		Email Address: <b>GIUNTOLI@GEOCONINC.COM</b>	
Project Name/Number: <b>E8560-06-46</b>			
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**

3 Hour   
  6 Hour   
  24 Hour   
  48 Hour   
  72 Hour   
  96 Hour   
  1 Week   
  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.

<b>PCM - Air</b> <input type="checkbox"/> NIOSH 7400 <input type="checkbox"/> w/ OSHA 8hr. TWA <b>PLM - Bulk (reporting limit)</b> <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%)	<b>TEM - Air</b> <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 <b>TEM - Bulk</b> <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 <b>TEM - Water:</b> EPA 100.2 Fibers >10µm <input type="checkbox"/> Waste <input type="checkbox"/> Drinking All Fiber Sizes <input type="checkbox"/> Waste <input type="checkbox"/> Drinking	<b>TEM- Dust</b> <input type="checkbox"/> Microvac - ASTM D 5755 <input type="checkbox"/> Wipe - ASTM D6480 <input type="checkbox"/> Carpet Sonication (EPA 600/J-93/167) <b>Soil/Rock/Vermiculite</b> <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) <b>Other:</b> <input type="checkbox"/>
---	--	--

Check For Positive Stop - Clearly Identify Homogenous Group

Samplers Name: <b>CHRIS GIUNTOLI</b>	Samplers Signature: <i>Chris Giuntoli</i>
--------------------------------------	---

Sample #	Sample Description	Volume/Area (Air) HA # (Bulk)	Date/Time Sampled
<b>IB-24A</b>	<b>FIRE HOSE</b>		<b>12/19/12</b>

Client Sample # (s):	Total # of Samples:
Relinquished (Client): <i>Chris Giuntoli</i>	Date: <b>12/27/12</b> Time: <b>0745</b>
Received (Lab): <i>[Signature]</i>	Date: <b>12/27/12</b> Time: <b>0800 DP</b>
Comments/Special Instructions:	

December 21, 2012

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



Re: ATL Work Order Number : 1204492  
Client Reference : IERBYS, E8560-06-46

Enclosed are the results for sample(s) received on December 19, 2012 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,

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.



## Certificate of Analysis

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

Project Number : IERBYS, E8560-06-46  
Report To : Chris Giuntoli  
Reported : 12/21/2012

### SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
IB-P1	1204492-01	Solid	12/18/12 0:00	12/19/12 8:03
IB-P2	1204492-02	Solid	12/18/12 0:00	12/19/12 8:03
IB-P3	1204492-03	Solid	12/18/12 0:00	12/19/12 8:03
IB-P4	1204492-04	Solid	12/18/12 0:00	12/19/12 8:03



## Certificate of Analysis

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6671 Brisa Street  
Livermore , CA 94550

Project Number : IERBYS, E8560-06-46  
Report To : Chris Giuntoli  
Reported : 12/21/2012

### Total Metals by ICP-AES EPA 6010B

Analyte: Lead

Analyst: PT

Laboratory ID	Client Sample ID	Result	Units	PQL	MDL	Dilution	Batch	Prepared	Date/Time	
									Analyzed	Notes
1204492-01	IB-P1	520	mg/kg	2.0	NA	1	B2L0465	12/19/2012	12/20/12 11:36	
1204492-02	IB-P2	160000	mg/kg	200	NA	100	B2L0465	12/19/2012	12/20/12 11:54	
1204492-03	IB-P3	58000	mg/kg	100	NA	50	B2L0465	12/19/2012	12/20/12 11:56	
1204492-04	IB-P4	27000	mg/kg	100	NA	50	B2L0465	12/19/2012	12/20/12 11:58	



## Certificate of Analysis

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

Project Number : IERBYS, E8560-06-46  
 Report To : Chris Giuntoli  
 Reported : 12/21/2012

### 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
<b>Batch B2L0465 - EPA 3050B</b>									
<b>Blank (B2L0465-BLK1)</b>									
									Prepared: 12/19/2012 Analyzed: 12/20/2012
Lead	ND	1.0							NR
<b>LCS (B2L0465-BS1)</b>									
									Prepared: 12/19/2012 Analyzed: 12/20/2012
Lead	45.8454	1.0	50.0000		91.7	80 - 120			
<b>Duplicate (B2L0465-DUP1)</b>									
									Prepared: 12/19/2012 Analyzed: 12/20/2012
Lead	6.15496	1.0		6.12878	NR		0.426	20	
<b>Matrix Spike (B2L0465-MS1)</b>									
									Prepared: 12/19/2012 Analyzed: 12/20/2012
Lead	70.5660	1.0	125.000	6.12878	51.5	45 - 111			
<b>Matrix Spike Dup (B2L0465-MSD1)</b>									
									Prepared: 12/19/2012 Analyzed: 12/20/2012
Lead	74.7439	1.0	125.000	6.12878	54.9	45 - 111	5.75	20	



## Certificate of Analysis

Geocon Consultants, Inc.

6671 Brisa Street

Livermore, CA 94550

Project Number : IERBYS, E8560-06-46

Report To : Chris Giuntoli

Reported : 12/21/2012

### Notes and Definitions

ND	Analyte not detected at or above reporting limit
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

<p><b>ADVANCED TECHNOLOGY LABORATORIES</b>                  3275 Walnut Ave., Signal Hill, CA 90755                  Tel: (562) 989-4045 • Fax: (562) 989-4040</p>	<p>P.O.#: _____ Quote #: _____                  As the authorized agent of the below named company, I hereby purchase testing services from ATL as dictated below and guarantee payment in full.                  Submitter (Print): _____                  Signature: _____</p>	<p><b>FOR LABORATORY USE ONLY:</b>                  Sample Condition Upon Receipt                  1. CHILLED <input type="checkbox"/> ATL <input type="checkbox"/> SEALED <input type="checkbox"/> N <input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/>                  2. HEADSPACE (VOA) <input type="checkbox"/> N <input type="checkbox"/> 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 <input type="checkbox"/> 6. PRESERVED <input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/></p>	<p>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: _____</p>																																																												
<p>Client: <b>Geocon Consultant, Inc.</b>                  Address: 6671 Brisa Street                  City: Livermore State: CA Zip Code: 94550                  TEL: (925) 371-5900 FAX: (925) 371-5915</p>		<p>Project Name: <b>STERBYS</b> (Printed Name)                  Sampler: <b>CHRIS GILVSTON</b> (Signature)                  Date: <b>12/18/12</b> Time: <b>1700</b>                  Received by: (Signature and Printed Name)                  Date: _____ Time: _____                  Relinquished by: (Signature and Printed Name)                  Date: _____ Time: _____                  Relinquished by: (Signature and Printed Name)                  Date: _____ Time: _____</p>																																																													
<p>Bill To: <b>CHRIS GILVSTON</b>                  Attn: <b>SAME</b>                  Company: <b>SAME AS ABOVE</b>                  Address: _____                  City: _____ State: _____ Zip: _____</p>		<p>Special Instructions/Comments:  <b>*SOLUBLE LEAD MAY BE REQUESTED BASED ON TOTAL LEAD RESULTS</b></p>																																																													
<p><b>Sample/Records - Archival &amp; Disposal</b>                  Unless otherwise requested by client, all Samples and Hardcopy will be disposed Forty-five(45) days after generation of report - electronic copies retained for five(5) years  <b>Storage Fees (applies when storage is requested):</b>                  Sample : Forty-five(45) Days Complimentary - \$2.00 / sample / mo thereafter.                  Hardcopy Reports \$17.50 per report.</p>		<p><b>QA/QC</b>                  RTNE <input type="checkbox"/> CT <input checked="" type="checkbox"/> Legal <input type="checkbox"/>                  SWRCB <input type="checkbox"/> Logcode <input type="checkbox"/> OTHER _____</p>																																																													
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>BUSINESS HOURS</th> <th>Sample Description</th> <th>Sample I.D. / Location</th> <th>Date</th> <th>Time</th> </tr> </thead> <tbody> <tr> <td>8:30 am to 5:30 pm</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>1</td> <td>IB-P1</td> <td></td> <td>12/18/12</td> <td></td> </tr> <tr> <td>2</td> <td>IB-P2</td> <td></td> <td></td> <td></td> </tr> <tr> <td>3</td> <td>IB-P3</td> <td></td> <td></td> <td></td> </tr> <tr> <td>4</td> <td>IB-P4</td> <td></td> <td></td> <td></td> </tr> <tr> <td>5</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>6</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>7</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>8</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>9</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>10</td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>		BUSINESS HOURS	Sample Description	Sample I.D. / Location	Date	Time	8:30 am to 5:30 pm					1	IB-P1		12/18/12		2	IB-P2				3	IB-P3				4	IB-P4				5					6					7					8					9					10					<p><b>CIRCLE APPROPRIATE MATRIX</b>                  AQUEOUS/LAYERED OIL                  WATER-STORMWASTE                  WATER-DRINKING/GROUND                  SOLIDWMPES/FILTERS                  SOLIDWMPES/SUDGE                  *TOTAL LEAD*</p>	
BUSINESS HOURS	Sample Description	Sample I.D. / Location	Date	Time																																																											
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<p>Container Types: 1=Tube 2=VOA 3=Liter 4=Pint 5=Jar 6=Tealdr 7=Canister</p>		<p>Material: 1=Glass 2=Plastic 3=Metal</p>																																																													
<p>Preservatives: 1=HCl, 2=HNO<sub>3</sub> 3=H<sub>2</sub>SO<sub>4</sub> 4=4°C 5=Zn(Ac)<sub>2</sub> 6=NaOH 7=Na<sub>2</sub>S<sub>2</sub>O<sub>4</sub></p>		<p>For RUSH TOLP/STLC, add 2 days to respective TAT.                  Subcon. TAT is 10-15 business days, Dioxin and Furans 21 business days.</p>																																																													

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

December 28, 2012

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



Re: ATL Work Order Number : 1204492  
Client Reference : IERBYS, E8560-06-46

Enclosed are the results for sample(s) received on December 19, 2012 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,

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.



## Certificate of Analysis

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

Project Number : IERBYS, E8560-06-46  
Report To : Chris Giuntoli  
Reported : 12/28/2012

### SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
IB-P1	1204492-01	Solid	12/18/12 0:00	12/19/12 8:03
IB-P2	1204492-02	Solid	12/18/12 0:00	12/19/12 8:03
IB-P3	1204492-03	Solid	12/18/12 0:00	12/19/12 8:03
IB-P4	1204492-04	Solid	12/18/12 0:00	12/19/12 8:03



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Livermore, CA 94550

Project Number : IERBYS, E8560-06-46  
Report To : Chris Giuntoli  
Reported : 12/28/2012

### STLC Lead by AA (Direct Aspiration) by EPA 7420

Analyte: Lead

Analyst: VV

Laboratory ID	Client Sample ID	Result	Units	PQL	MDL	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1204492-01	IB-P1	4.1	mg/L	0.50	NA	1	B2L0613	12/28/2012	12/28/12 13:29	

### TCLP Lead by AA (Direct Aspiration) EPA 7420

Analyte: Lead

Analyst: VV

Laboratory ID	Client Sample ID	Result	Units	PQL	MDL	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1204492-01	IB-P1	0.73	mg/L	0.50	NA	1	B2L0612	12/28/2012	12/28/12 13:47	
1204492-02	IB-P2	2200	mg/L	200	NA	400	B2L0612	12/28/2012	12/28/12 13:56	
1204492-03	IB-P3	160	mg/L	10	NA	20	B2L0612	12/28/2012	12/28/12 13:58	
1204492-04	IB-P4	5.1	mg/L	0.50	NA	1	B2L0612	12/28/2012	12/28/12 13:58	



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Project Number : IERBYS, E8560-06-46  
Report To : Chris Giuntoli  
Reported : 12/28/2012

### QUALITY CONTROL SECTION

#### STLC Lead by AA (Direct Aspiration) by EPA 7420 - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
<b>Batch B2L0613 - STLC Extraction</b>									
<b>Blank (B2L0613-BLK1)</b>					Prepared: 12/28/2012 Analyzed: 12/28/2012				
Lead	ND	0.50							NR
<b>LCS (B2L0613-BS1)</b>					Prepared: 12/28/2012 Analyzed: 12/28/2012				
Lead	4.99886	0.05	5.00000		100	80 - 120			
<b>Duplicate (B2L0613-DUP1)</b>					Prepared: 12/28/2012 Analyzed: 12/28/2012				
Lead	2.98035	0.50		3.04968	NR		2.30	20	
<b>Matrix Spike (B2L0613-MS1)</b>					Prepared: 12/28/2012 Analyzed: 12/28/2012				
Lead	8.01530	0.05	5.00000	3.04968	99.3	80 - 120			
<b>Matrix Spike Dup (B2L0613-MSD1)</b>					Prepared: 12/28/2012 Analyzed: 12/28/2012				
Lead	7.77146	0.05	5.00000	3.04968	94.4	80 - 120	3.09	20	
<b>Batch S2L0353 - B2L0613</b>									
<b>Instrument Blank (S2L0353-IBL1)</b>					Prepared: 12/28/2012 Analyzed: 12/28/2012				
Lead	ND	0.50							NR



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Project Number : IERBYS, E8560-06-46  
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Reported : 12/28/2012

### TCLP Lead by AA (Direct Aspiration) EPA 7420 - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec Limits	RPD	RPD Limit	Notes
<b>Batch B2L0612 - EPA 3010A_SOIL</b>								
<b>Blank (B2L0612-BLK1)</b>				Prepared: 12/28/2012 Analyzed: 12/28/2012				
Lead	ND	0.50			NR			
<b>Blank (B2L0612-BLK2)</b>				Prepared: 12/28/2012 Analyzed: 12/28/2012				
Lead	ND	0.50			NR			
<b>LCS (B2L0612-BS1)</b>				Prepared: 12/28/2012 Analyzed: 12/28/2012				
Lead	1.08342	0.50	1.00000		108      80 - 120			
<b>LCS Dup (B2L0612-BSD1)</b>				Prepared: 12/28/2012 Analyzed: 12/28/2012				
Lead	1.14808	0.50	1.00000		115      80 - 120	5.80	20	
<b>Duplicate (B2L0612-DUP1)</b>		<b>Source: 1204492-04</b>			Prepared: 12/28/2012 Analyzed: 12/28/2012			
Lead	5.11596	0.50		5.06865	NR	0.929	20	
<b>Batch S2L0354 - B2L0612</b>								
<b>Instrument Blank (S2L0354-IBL1)</b>				Prepared: 12/28/2012 Analyzed: 12/28/2012				
Lead	ND	0.50			NR			



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Project Number : IERBYS, E8560-06-46  
Report To : Chris Giuntoli  
Reported : 12/28/2012

### Notes and Definitions

ND Analyte not detected at or above reporting limit  
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:** Friday, December 21, 2012 12:41 PM  
**To:** Diane Galvan  
**Subject:** RE: Geocon Project E8560-06-46 paint (lead) samples

Diane.

Please run WET for lead on sample IB-P1 and run TCLPs for lead on each of the four samples (IB-P1, -P2, -P3, and -P4). I'll need results by Friday, December 28, so please analyze on an appropriate TAT to meet that deadline.

Thanks,  
Chris



**Chris Giuntoli, CAC** | *Senior Project Scientist*

**Geocon Consultants, Inc.**

6671 Brisa Street, Livermore, CA 94550

Office 925.371.5900, ext. 405 Direct 925.961.5274 Mobile 775.685.6116 Fax 925.371.5915

<http://www.geoconinc.com>

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