

INFORMATION HANDOUT

For Contract No. 03-3F0404

At 03-Sac-5-23.3

Identified by

Project ID 0312000058

MATERIALS INFORMATION

Asbestos and Lead-Containing Paint Survey Report dated January 2014

ASBESTOS AND LEAD-CONTAINING PAINT SURVEY REPORT



**O Street Pumping Plant
03-SAC-5 PM 23.26
Sacramento County, California**

PREPARED FOR:

**CALIFORNIA DEPARTMENT OF TRANSPORTATION
DISTRICT 3
703 B STREET, P.O. BOX 911
MARYSVILLE, CALIFORNIA 95901**



PREPARED BY:

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



**GEOCON PROJECT NO. S9805-01-17
TASK ORDER NO. 17
E-FIS 03 1200 0058 0 (EA 03-3F0400)
CONTRACT NO. 03A2132**

JANUARY 2014



Project No. S9805-01-17

January 7, 2014

Alicia Beyer, Task Order Manager
Caltrans District 3
703 B Street
Marysville, California 95901

Subject: ASBESTOS AND LEAD-CONTAINING PAINT SURVEY REPORT
03-SAC-5, O STREET PUMPING PLANT,
SACRAMENTO COUNTY, CALIFORNIA
CONTRACT NO. 03A2132, E-FIS 03 1200 0058 0 (EA 03-3F0400)
TASK ORDER NO. 17

Dear Ms. Beyer:

In accordance with California Department of Transportation Contract No. 03A2132 and Task Order No. 17, we have performed an asbestos and lead-containing paint survey of the O Street Pumping Plant in Sacramento, California. Our scope of services included surveying the structure for suspect asbestos-containing materials and lead-containing paint, collecting bulk samples, and submitting the samples to laboratories for analyses.

The accompanying report summarizes the services performed and laboratory analysis.

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

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

Sincerely,

GEOCON CONSULTANTS, INC.

David A. Watts, CAC No. 98-2404
Senior Project Scientist

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

(2 + 2 CDs) Addressee

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ASBESTOS AND LEAD-CONTAINING PAINT SURVEY REPORT

1.0 INTRODUCTION

This asbestos and lead-containing paint (LCP) survey report was prepared by Geocon Consultants, Inc. under Caltrans Contract No. 03A2132, Task Order No. 17 (TO-17).

1.1 Project Description

The project consists of the O Street Pumping Plant at Post Mile 23.26 on Interstate 5 in Sacramento, California. We performed asbestos and LCP survey activities at the project location. The project location is depicted on the Vicinity Map, Figure 1, and Site Plan, Figure 2.

1.2 General Objectives

The purpose of the scope of services outlined in TO-17 was to determine the presence and quantity of asbestos and LCP at the project location prior to renovation activities. The information obtained from this investigation will be used by Caltrans for waste profiling, determining California Occupational Safety and Health Administration (Cal/OSHA) applicability, and coordinating asbestos and LCP disturbance activities.

It was not Geocon's intent during this inspection to conduct an evaluation of lead-based paint hazards in accordance with U.S. Department of Housing and Urban Development (HUD) guidelines.

2.0 BACKGROUND

2.1 Asbestos

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

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

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

- Friable (can be crumbled, pulverized, or reduced to powder by hand pressure); or
- Category I material that has become friable; or

- Category I material that has been subjected to sanding, grinding, cutting, or abrading; or
- Category II nonfriable material that has a high probability of becoming crumbled, pulverized, or reduced to a powder during demolition or renovation activities.

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

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

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

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, §1532.1. Deteriorated paint is defined by Title 17, CCR, Division 1, Chapter 8, §35022 as a surface coating that is cracking, chalking, flaking, chipping, peeling, non-intact, failed, or otherwise separating from a substrate. Demolition of a deteriorated LCP component would require waste characterization and appropriate disposal. Intact LCP on a component is currently accepted by most landfills and recycling facilities; however, contractors are responsible for segregating and characterizing waste streams prior to disposal.

For a solid waste containing lead, the waste is classified as California hazardous when: 1) the total lead content equals or exceeds the respective Total Threshold Limit Concentration (TTLC) of 1,000 milligrams per kilogram (mg/kg); or 2) the representative soluble lead content equals or exceeds the respective Soluble Threshold Limit Concentration (STLC) of 5 milligrams per liter (mg/l) based on the standard Waste Extraction Test (WET). A waste has the potential for exceeding the lead STLC when the waste's total lead content is greater than or equal to ten times the respective STLC value since the WET uses a 1:10 dilution ratio. Hence, when total lead is detected at a concentration greater

than or equal to 50 mg/kg, and assuming that 100 percent of the total lead is soluble, soluble lead analysis is required. Lead-containing waste is classified as “Resource, Conservation, and Recovery Act” (RCRA) hazardous, or Federal hazardous, when the representative soluble lead content equals or exceeds the Federal regulatory level of 5 mg/l based on the Toxicity Characteristic Leaching Procedure (TCLP).

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

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

2.3 Architectural Drawings and Previous Survey Activities

We reviewed structure architectural plans provided by Caltrans prior to field activities. We did not observe specifications or notes regarding the use of asbestos-containing materials or lead paint in the architectural plans provided. Previous asbestos survey reports were not available for our review.

3.0 SCOPE OF SERVICES

Mr. David Watts, a California-Certified Asbestos Consultant (CAC), certification No. 98-2404 (expiration September 16, 2014), and Certified Lead Paint Inspector/Assessor and Project Monitor with the California Department of Public Health Services (DPH), certification numbers I-1734 and M-1734 (expiration December 4, 2014), performed the asbestos and LCP survey at the project location on December 12, 2013.

Access to below-grade areas of the pumping plant were coordinated by Caltrans under the *Caltrans Permit-Required Confined Space Entry Program*. Prior to entry, Caltrans operated the onsite ventilation fans for 15 minutes. Caltrans and Geocon monitored below-grade air readings using direct-read instrumentation prior to entering below-grade areas and throughout our survey activities. Caltrans notified the Sacramento Fire Department prior to entry to, and following egress from, the below-grade areas. A copy of the Confined Space Entry Permit is available from Caltrans.

3.1 Asbestos

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

Our procedures for inspection and sampling in accordance with TO-17 are discussed below:

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

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

3.2 Lead Paint

A total of six bulk paint samples were collected from suspect LCP observed at the project location. Mr. Watts field-composited the suspect LCP samples into three paint schemes prior to submittal to the laboratory. We did not observe deteriorated LCP during our survey. Our sampling procedures in accordance with TO-17 are discussed below:

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

Paint sample identification numbers, descriptions, peeling and flaking quantities, and photo references are summarized on Table 2. Approximate sample locations are presented on Figure 2. Materials represented by the samples collected are shown in the attached photographs.

4.0 INVESTIGATIVE RESULTS

4.1 Asbestos Analytical Results

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

4.2 Paint Analytical Results

A sample representing intact green exterior paint used on the barrier rails exhibited a total lead concentration of 24 mg/kg.

A sample representing intact gray interior paint used on the mechanical and electrical equipment exhibited a total lead concentration of 2,300 mg/kg.

A sample representing intact silver interior paint used on the diesel engine exhaust line exhibited a total lead concentration of 1,300 mg/kg.

Further analysis of the interior paints indicated a composite TCLP lead concentration of 2.8 mg/l.

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

5.0 RECOMMENDATIONS

Based on our findings, we recommend the following:

5.1 Asbestos

Since no asbestos was detected in the samples collected during our survey, the Cal/OSHA asbestos standard does not apply for planned activities. In addition, renovation debris would not be considered a California hazardous waste based on asbestos content. In accordance with Sacramento Metropolitan Air Quality Management District (SMAQMD) Rule 902, written notification to SMAQMD is required ten working days prior to commencement of *any* demolition activity (whether asbestos is present or not).

5.2 Lead Paint

Interior paints sampled during our survey would be classified as California hazardous based on lead content if stripped, blasted, or otherwise separated from the substrate.

We recommend that all paints at the project location be treated as lead-containing for purpose 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, §1532.1(p), written notification to the nearest Cal/OSHA district office is required at least 24 hours prior to certain lead-related work. Compliance and training requirements regarding construction activities where workers may be exposed to lead are presented in Title 8, CCR, §1532.1, subsections (e) and (l), respectively.

Disturbance, packaging, storage, transporting, and disposing of material containing lead paint at hazardous levels must conform to applicable local, California, and Federal regulations. The removal, transportation, placement, handling, and disposal of LCP must result in no visible dust.

6.0 REPORT LIMITATIONS

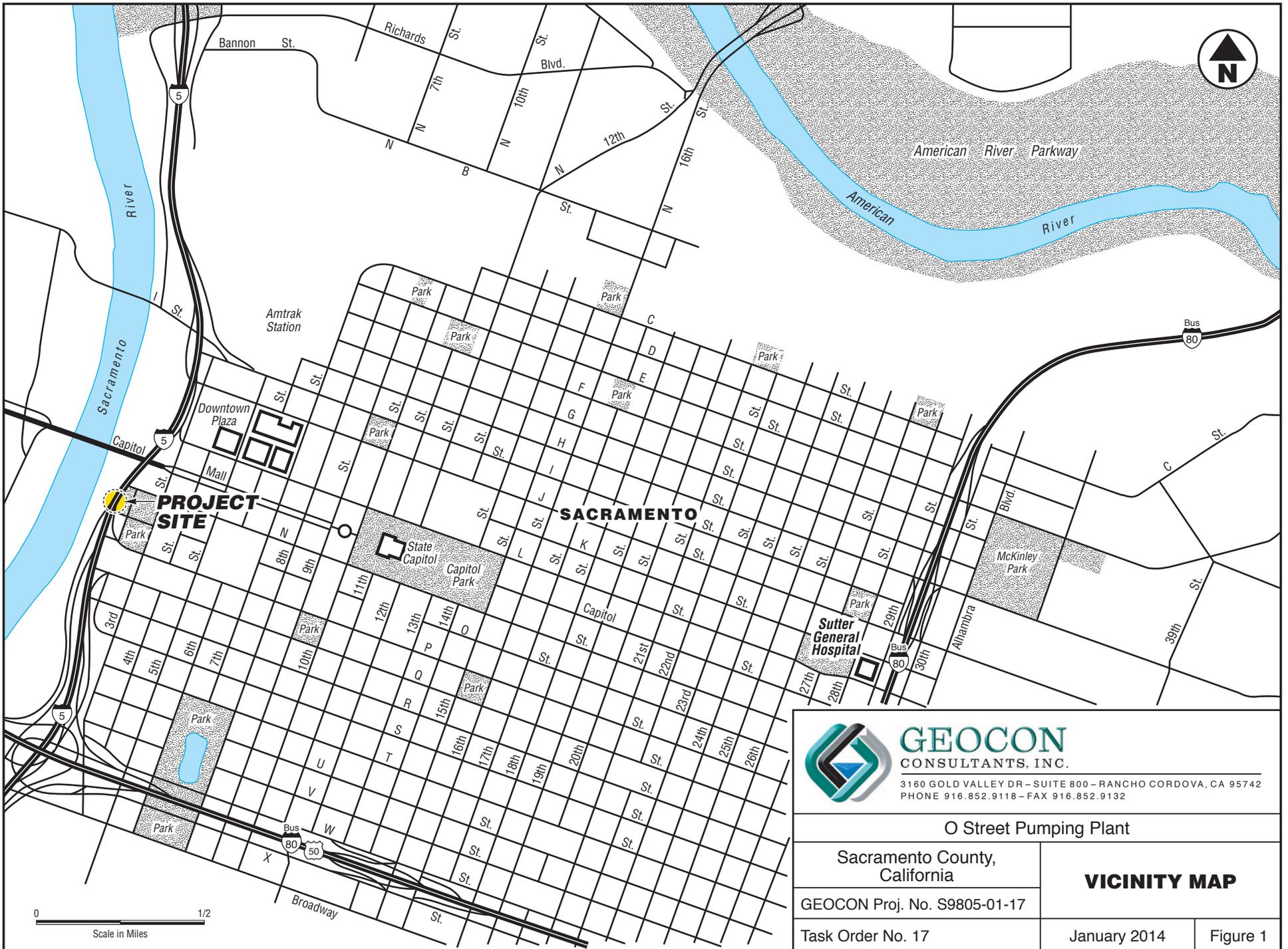
The asbestos and LCP survey was conducted in conformance with generally accepted standards of practice for identifying and evaluating asbestos and LCP in structures. The survey addressed only the structure identified in Section 1.1. Due to the nature of structure surveys, asbestos and LCP use, and laboratory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

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

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

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

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




GEOCON
CONSULTANTS, INC.

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PHONE 916.852.9118 - FAX 916.852.9132

O Street Pumping Plant		
Sacramento County, California		VICINITY MAP
GEOCON Proj. No. S9805-01-17		
Task Order No. 17	January 2014	Figure 1



Photo 1 – O Street Pumping Plant at PM 23.26 on Interstate 5 in Sacramento County, California



Photo 2 – Stairwell between street level and diesel generator control room



Photo 3 – Ladder between pump vault and diesel generator control room



GEOCON
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PHOTOGRAPHS 1, 2, & 3

O Street Pumping Plant
Sacramento County, California

S9805-01-17

January 2014



Photo 4 – Gaskets (pumping system)



Photo 5 – Diesel generator



Photo 6 – Door core insulation



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PHOTOGRAPHS 4, 5, & 6

O Street Pumping Plant
Sacramento County, California

S9805-01-17

January 2014

TABLE 1
SUMMARY OF ASBESTOS ANALYTICAL RESULTS
O STREET PUMPING PLANT
CALTRANS CONTRACT 03A2132, TASK ORDER NO. 17, E-FIS 03 1200 0058 0 (EA 03-F0400), 03-SAC-5
SACRAMENTO COUNTY, CALIFORNIA

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

Sample Group No.	Description of Material	Approximate Quantity	Friable	Site Photo	Asbestos Content
1	Concrete	NA	NA	1 through 3	ND
2	Gaskets	NA	NA	4	ND
3	Paint (engine exhaust line)	NA	NA	5	ND
4	Core insulation (door)	NA	NA	6	ND

Notes:

NA = Not applicable (no asbestos detected)

ND = Not detected

TABLE 2
SUMMARY OF PAINT ANALYTICAL RESULTS - TOTAL AND SOLUBLE LEAD
O STREET PUMPING PLANT
CALTRANS CONTRACT 03A2132, TASK ORDER NO. 17, E-FIS 03 1200 0058 0 (EA 03-F0400), 03-SAC-5
SACRAMENTO COUNTY, CALIFORNIA

Paint Sample No.	Paint Description	Approximate Quantity Peeling/Flaking	Site Photos	Total Lead (mg/kg)	TCLP Lead (mg/l)
P1A/B	Green exterior paint (barrier rails)	Intact	1	24	---
P2A/B	Gray interior paint (equipment)	Intact	4 and 5	2,300	2.8
P3A/B	Silver interior paint (engine exhaust line)	Intact	5	1,300	

Notes:

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

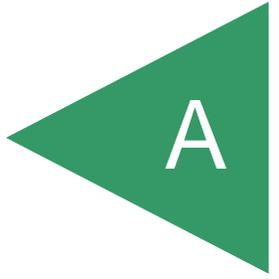
mg/kg = milligrams per kilogram (EPA Test Method 6010B)

mg/l = milligrams per liter

--- = Not analyzed

APPENDIX

A





EMSL Analytical, Inc

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

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

<http://www.EMSL.com>

sanleandrolab@emsl.com

EMSL Order:	091319715
CustomerID:	GECN21
CustomerPO:	S9805-01-17
ProjectID:	

Attn: **Dave Watts**
Geocon Consultants, Inc.
6671 Brisa Street

Livermore, CA 94550

Phone: (925) 371-5900
 Fax: (925) 371-5915
 Received: 12/13/13 9:15 AM
 Analysis Date: 12/20/2013
 Collected: 12/12/2013

Project: **O STREET S9805-01-17**

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

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
1A Concrete <i>091319715-0001</i>	CONCRETE	Gray Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
1B Concrete <i>091319715-0002</i>	CONCRETE	Gray Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
1C Concrete <i>091319715-0003</i>	CONCRETE	Gray Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
1D Concrete <i>091319715-0004</i>	CONCRETE	Gray Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
2A Gaskets <i>091319715-0005</i>	GASKETS (SHEET PACKING)	Brown Fibrous Homogeneous	80% Cellulose	20% Non-fibrous (other)	None Detected
2B Gaskets <i>091319715-0006</i>	GASKETS (SHEET PACKING)	Blue Non-Fibrous Homogeneous	60% Cellulose	40% Non-fibrous (other)	None Detected
3A Paint <i>091319715-0007</i>	PAINT (SILVER - EXHAUST LINE)	Silver Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
3B Paint <i>091319715-0008</i>	PAINT (SILVER - EXHAUST LINE)	Silver Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected

Analyst(s) _____
Rui Cindy Geng (10)

Baojia Ke, Laboratory Manager
 or other approved signatory

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

Initial report from 12/20/2013 11:22:33



EMSL Analytical, Inc

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

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

<http://www.EMSL.com>

sanleandrolab@emsl.com

EMSL Order:	091319715
CustomerID:	GECN21
CustomerPO:	S9805-01-17
ProjectID:	

Attn: **Dave Watts**
Geocon Consultants, Inc.
6671 Brisa Street

Livermore, CA 94550

Project: **O STREET S9805-01-17**

Phone: (925) 371-5900
 Fax: (925) 371-5915
 Received: 12/13/13 9:15 AM
 Analysis Date: 12/20/2013
 Collected: 12/12/2013

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

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
4A Insulation <i>091319715-0009</i>	CORE INSULATION (DOOR)	Brown Fibrous Homogeneous	95% Cellulose	5% Non-fibrous (other)	None Detected
4B Insulation <i>091319715-0010</i>	CORE INSULATION (DOOR)	Brown Fibrous Homogeneous	95% Cellulose	5% Non-fibrous (other)	None Detected

Analyst(s) _____
Rui Cindy Geng (10)

 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 12/20/2013 11:22:33



EMSL ANALYTICAL, INC.
LABORATORY • PRODUCTS • TRAINING

Asbestos Chain of Custody

EMSL Order Number (Lab Use Only):

091319715

CONTRACT 03A2132

EMSL ANALYTICAL, INC.
2235 POLVOROSA DR #230
SAN LEANDRO, CA 94577

PHONE: (510) 895-3675

FAX: (510) 895-3680

Company: <u>GEOCON</u>		EMSL-Bill to: <input checked="" type="checkbox"/> Same <input type="checkbox"/> Different If Bill to is Different note instructions in Comments**	
Street: <u>6671 BRISA ST.</u>		Third Party Billing requires written authorization from third party	
City: <u>LIVERMORE</u>	State/Province: <u>CA</u>	Zip/Postal Code: <u>94550</u>	Country: <u>USA</u>
Report To (Name): <u>D. WATTS</u>		Telephone #: <u>925-371-5900</u>	
Email Address: <u>WATTS@GEOCONINC.COM</u>		Fax #: <u>925-371-5915</u>	Purchase Order:
Project Name/Number: <u>0 STREET / #9805-01-17</u>		Please Provide Results: <input type="checkbox"/> Fax <input checked="" type="checkbox"/> Email	
U.S. State Samples Taken: <u>CA</u>		CT Samples: <input type="checkbox"/> Commercial/Taxable <input type="checkbox"/> Residential/Tax Exempt	

Turnaround Time (TAT) Options* - Please Check

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

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

PCM - Air <input type="checkbox"/> Check if samples are from NY <input type="checkbox"/> NIOSH 7400 <input type="checkbox"/> w/ OSHA 8hr. TWA	TEM - Air <input type="checkbox"/> 4-4.5hr TAT (AHERA only) <input type="checkbox"/> AHERA 40 CFR, Part 763 <input type="checkbox"/> NIOSH 7402 <input type="checkbox"/> EPA Level II <input type="checkbox"/> ISO 10312	TEM - Dust <input type="checkbox"/> Microvac - ASTM D 5755 <input type="checkbox"/> Wipe - ASTM D6480 <input type="checkbox"/> Carpet Sonication (EPA 600/J-93/167)
PLM - Bulk (reporting limit) <input checked="" type="checkbox"/> PLM EPA 600/R-93/116 (<1%) <input type="checkbox"/> PLM EPA NOB (<1%) Point Count <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%) Point Count w/Gravimetric <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%) <input type="checkbox"/> NYS 198.1 (friable in NY) <input type="checkbox"/> NYS 198.6 NOB (non-friable-NY) <input type="checkbox"/> NIOSH 9002 (<1%)	TEM - Bulk <input type="checkbox"/> TEM EPA NOB <input type="checkbox"/> NYS NOB 198.4 (non-friable-NY) <input type="checkbox"/> Chatfield SOP <input type="checkbox"/> TEM Mass Analysis-EPA 600 sec. 2.5 TEM - Water: EPA 100.2 Fibers >10µm <input type="checkbox"/> Waste <input type="checkbox"/> Drinking All Fiber Sizes <input type="checkbox"/> Waste <input type="checkbox"/> Drinking	Soil/Rock/Vermiculite <input type="checkbox"/> PLM CARB 435 - A (0.25% sensitivity) <input type="checkbox"/> PLM CARB 435 - B (0.1% sensitivity) <input type="checkbox"/> TEM CARB 435 - B (0.1% sensitivity) <input type="checkbox"/> TEM CARB 435 - C (0.01% sensitivity) <input type="checkbox"/> TEM Qual. via Filtration Technique <input type="checkbox"/> TEM Qual. via Drop-Mount Technique Other: <input type="checkbox"/>

Check For Positive Stop - Clearly Identify Homogenous Group Filter Pore Size (Air Samples): 0.8µm 0.45µm

Samplers Name: D. WATTS Samplers Signature: [Signature]

Sample #	Sample Description	Volume/Area (Air) HA # (Bulk)	Date/Time Sampled
<u>1A-D</u>	<u>CONCRETE</u>	<u>NA</u>	<u>12 DEC 2013</u>
<u>2A/B</u>	<u>GASKETS (SHOET PACKING)</u>	<u>↓</u>	<u>↓</u>
<u>3A/B</u>	<u>PAINT (SILVER-EXHAUST LINE)</u>	<u>↓</u>	<u>↓</u>
<u>4A/B</u>	<u>CORE INSULATION (DOOR)</u>	<u>↓</u>	<u>↓</u>

Client Sample # (s): <u>1A-4B</u>	Total # of Samples: <u>10</u>
Relinquished (Client): <u>[Signature]</u> Date: <u>12 DEC 2013</u> Time: <u>12:00</u>	
Received (Lab): <u>FED EX</u> Date: <u>12 DEC 2013</u> Time: <u>12:00</u>	
Comments/Special Instructions: <u>2</u>	Date: <u>12/13/13</u> Time: <u>9:15L</u>

December 20, 2013

Dave Watts
Geocon Consultants, Inc.
6671 Brisa Street
Livermore, CA 94550
Tel: (925) 961-5273
Fax: (925) 371-5915

ACCREDITED IN ACCORDANCE WITH

ELAP No.: 1838
NELAP No.: 02107CA
CSDLAC No.: 10196
ORELAP No.: CA300003
TCEQ No.: T104704502

Re: ATL Work Order Number : 1303975
Client Reference : O STREET, S9805-01-17

Enclosed are the results for sample(s) received on December 13, 2013 by Advanced Technology Laboratories. The sample(s) are tested for the parameters as indicated on the enclosed chain of custody in accordance with applicable laboratory certifications. The laboratory results contained in this report specifically pertains to the sample(s) submitted.

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

Sincerely,



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 : O STREET, S9805-01-17
Report To : Dave Watts
Reported : 12/20/2013

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
P1A/B	1303975-01	Soil	12/12/13 0:00	12/13/13 9:55
P2A/B	1303975-02	Soil	12/12/13 0:00	12/13/13 9:55
P3A/B	1303975-03	Soil	12/12/13 0:00	12/13/13 9:55



Certificate of Analysis

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

Project Number : O STREET, S9805-01-17
Report To : Dave Watts
Reported : 12/20/2013

Client Sample ID P1A/B

Lab ID: 1303975-01

Total Metals by ICP-AES EPA 6010B

Analyst: AG

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	24	2.0	NA	1	B3L0361	12/17/2013	12/18/13 14:02	



Certificate of Analysis

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

Project Number : O STREET, S9805-01-17
Report To : Dave Watts
Reported : 12/20/2013

Client Sample ID P2A/B

Lab ID: 1303975-02

Total Metals by ICP-AES EPA 6010B

Analyst: AG

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	2300	400	NA	100	B3L0361	12/17/2013	12/18/13 14:04	D2



Certificate of Analysis

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

Project Number : O STREET, S9805-01-17
Report To : Dave Watts
Reported : 12/20/2013

Client Sample ID P3A/B

Lab ID: 1303975-03

Total Metals by ICP-AES EPA 6010B

Analyst: AG

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	1300	22	NA	1	B3L0361	12/17/2013	12/18/13 14:10	

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	% Rec Limits	RPD	RPD Limit	Notes
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Batch B3L0361 - EPA 3050B

Blank (B3L0361-BLK1)

Prepared: 12/17/2013 Analyzed: 12/18/2013

Lead	ND	1.0							
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LCS (B3L0361-BS1)

Prepared: 12/17/2013 Analyzed: 12/18/2013

Lead	47.5337	1.0	50.0000		95.1	80 - 120			
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Duplicate (B3L0361-DUP1)

Source: 1303943-01

Prepared: 12/17/2013 Analyzed: 12/18/2013

Lead	4.16969	1.0		4.08202	NR		2.12	20	
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Matrix Spike (B3L0361-MS1)

Source: 1303943-01

Prepared: 12/17/2013 Analyzed: 12/18/2013

Lead	83.0862	1.0	125.000	4.08202	63.2	51 - 106			
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Matrix Spike Dup (B3L0361-MSD1)

Source: 1303943-01

Prepared: 12/17/2013 Analyzed: 12/18/2013

Lead	83.5372	1.0	125.000	4.08202	63.6	51 - 106	0.541	20	
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Certificate of Analysis

Geocon Consultants, Inc.

6671 Brisa Street

Livermore, CA 94550

Project Number : O STREET, S9805-01-17

Report To : Dave Watts

Reported : 12/20/2013

Notes and Definitions

D2	Sample required dilution due to high concentration of non-target analyte.
ND	Analyte is not detected at or above the Practical Quantitation Limit (PQL). When client requests quantitation against MDL, analyte is not detected at or above the Method Detection Limit (MDL)
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
NR	Not Reported
RPD	Relative Percent Difference
CA1	CA-NELAP (CDPH)
CA2	CA-ELAP (CDPH)
OR1	OR-NELAP (OSPHL)
TX1	TX-NELAP (TCEQ)

Notes:

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

CONTRACT 03A2132 CHAIN OF C STUDY RECORD

1 of 1



Advanced Technology Laboratories

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

FOR LABORATORY USE ONLY:

P.O.#: _____	Method of Transport Client <input type="checkbox"/> ATL <input type="checkbox"/> CA OverN <input type="checkbox"/> FEDEX <input type="checkbox"/> Other: <u>CSO</u>	Sample Condition Upon Receipt 1. CHILLED Y <input type="checkbox"/> N <input type="checkbox"/> 4. SEALED Y <input type="checkbox"/> N <input type="checkbox"/> 2. HEADSPACE (VOA) Y <input type="checkbox"/> N <input type="checkbox"/> 5. # OF SPLS MATCH COC Y <input type="checkbox"/> N <input type="checkbox"/> 3. CONTAINER INTACT Y <input type="checkbox"/> N <input type="checkbox"/> 6. PRESERVED Y <input type="checkbox"/> N <input type="checkbox"/>
Logged By: _____ Date: _____		

Client: GEOCON CONSULTANTS, INC. Address: 6671 Brisa Street TEL: (925) 371-5900
Attn: D. WATTS City Livemore State CA Zip Code 94550 FAX: (925) 371-5915

Project Name: O STREET Project #: 59805-01-17 Sampler: D. WATTS (Printed Name) [Signature] (Signature)
Relinquished by: [Signature] Date: 12/02/13 Time: 1200 Received by: [Signature] Date: 12/02/13 Time: 1200
Relinquished by: [Signature] Date: _____ Time: _____ Received by: [Signature] Date: 12/03/13 Time: 0955
Relinquished by: _____ Date: _____ Time: _____ Received by: _____ Date: _____ Time: _____

I hereby authorize ATL to perform the work indicated below:
Project Mgr / Submitter: D. WATTS [Signature] 12/12/13
Send Report To: Attn: _____ Co: SAME AS ABOVE Address _____ City _____ State _____ Zip _____
Bill To: Attn: _____ Co: SAME AS ABOVE Address _____ City _____ State _____ Zip _____
Special Instructions/Comments: PAINT CHIPS
(ANTICIPATE SOLUBLE REQUESTS)

Sample/Records - Archival & Disposal
Unless otherwise requested by client, all samples will be disposed 45 days after receipt and records will be disposed 1 year after submittal of final report.
Storage Fees (applies when storage is requested):
• Sample : \$2.00 / sample / mo (after 45 days)
• Records : \$1.00 / ATL workorder / mo (after 1 year)

ITEM	LAB USE ONLY: Batch #: Lab No.	Sample Description		Date	Time	Circle or Add Analysis(es) Requested	SPECIFY APPROPRIATE MATRIX				Container(s) # Type	PRESERVATION	REMARKS	
		Sample I.D. / Location					SOIL	WATER	GROUND WATER	WASTEWATER				
	1303975 - 1	PIA/B		12/13	VAR	8011A (Pesticides) 8002 (PCB) 8250B (Volatiles) 8270C (BVA) 8010B (Total Metal) - <u>PH</u> 8015B (G-RO) / BTEX 8015B (D-RO) 8021 (BTEX) TITLE 22 / CAM 17 (6010, 7000)								
	2	P2A/B												
	3	P3A/B												

• TAT starts 8 a.m. following day if samples received after 3 p.m.
TAT: A= Overnight ≤ 24 hr B= Emergency Next workday C= Critical 2 Workdays D= Urgent 3 Workdays E= Routine 7 Workdays
Preservatives: H=HCl N=HNO₃ S=H₂SO₄ C=4°C
Container Types: T=Tube V=VOA L=Liter P=Pint J=Jar B=Tedlar G=Glass P=Plastic M=Metal Z=Zn(AC)₂ O=NaOH T=Na₂S₂O₃

January 02, 2014

Dave Watts
Geocon Consultants, Inc.
6671 Brisa Street
Livermore, CA 94550
Tel: (925) 961-5273
Fax: (925) 371-5915



Re: ATL Work Order Number : 1303975
Client Reference : O STREET, S9805-01-17

Enclosed are the results for sample(s) received on December 13, 2013 by Advanced Technology Laboratories. The sample(s) are tested for the parameters as indicated on the enclosed chain of custody in accordance with applicable laboratory certifications. The laboratory results contained in this report specifically pertains to the sample(s) submitted.

This is an amended report. Please disregard all previous documentation that corresponds to the page(s) enclosed.

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

Sincerely,

A handwritten signature in black ink, appearing to read 'Eddie Rodriguez', with a small 'Er' monogram below it.

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 : O STREET, S9805-01-17
Report To : Dave Watts
Reported : 01/02/2014

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Composite 2A/B, 3A/B	1303975-04	Paint Chip	12/12/13 0:00	12/13/13 9:55



Certificate of Analysis

Geocon Consultants, Inc.

6671 Brisa Street

Livermore, CA 94550

Project Number : O STREET, S9805-01-17

Report To : Dave Watts

Reported : 01/02/2014

STLC Metals by ICP-AES by EPA 6010B

Analyte: Lead

Analyst: AG

Laboratory ID	Client Sample ID	Result	Units	PQL	MDL	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1303975-04	Composite 2A/B, 3A/B	2.8	mg/L	1.0	NA	20	B3L0457	12/23/2013	12/23/13 13:11	



Certificate of Analysis

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

Project Number : O STREET, S9805-01-17
Report To : Dave Watts
Reported : 01/02/2014

QUALITY CONTROL SECTION

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

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3L0457 - STLC Extraction									
Blank (B3L0457-BLK1)					Prepared: 12/23/2013 Analyzed: 12/23/2013				
Lead	ND	1.0					NR		
Blank (B3L0457-BLK2)					Prepared: 12/23/2013 Analyzed: 12/23/2013				
Lead	ND	1.0					NR		
LCS (B3L0457-BS1)					Prepared: 12/23/2013 Analyzed: 12/23/2013				
Lead	2.00629	1.0	2.00000		100	80 - 120			
Duplicate (B3L0457-DUP1)					Prepared: 12/23/2013 Analyzed: 12/23/2013				
Lead	41.3153	1.0		44.0272	NR		6.36	20	
Duplicate (B3L0457-DUP2)					Prepared: 12/23/2013 Analyzed: 12/23/2013				
Lead	29.9532	1.0		23.1297	NR		25.7	20	R
Matrix Spike (B3L0457-MS1)					Prepared: 12/23/2013 Analyzed: 12/23/2013				
Lead	45.0694	1.0	2.50000	44.0272	41.7	33 - 131			
Matrix Spike (B3L0457-MS2)					Prepared: 12/23/2013 Analyzed: 12/23/2013				
Lead	23.9210	1.0	2.50000	23.1297	31.7	33 - 131			M2
Matrix Spike Dup (B3L0457-MSD1)					Prepared: 12/23/2013 Analyzed: 12/23/2013				
Lead	45.8610	1.0	2.50000	44.0272	73.4	33 - 131	1.74	20	



Certificate of Analysis

Geocon Consultants, Inc.

Project Number : O STREET, S9805-01-17

6671 Brisa Street

Report To : Dave Watts

Livermore , CA 94550

Reported : 01/02/2014

Notes and Definitions

R	RPD value outside acceptance criteria. Calculation is based on raw values.
M2	Matrix spike recovery outside of acceptance limit due to possible matrix interference. The analytical batch was validated by the laboratory control sample.
ND	Analyte is not detected at or above the Practical Quantitation Limit (PQL). When client requests quantitation against MDL, analyte is not detected at or above the Method Detection Limit (MDL)
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
NR	Not Reported
RPD	Relative Percent Difference
CA1	CA-NELAP (CDPH)
CA2	CA-ELAP (CDPH)
OR1	OR-NELAP (OSPHL)
TX1	TX-NELAP (TCEQ)

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

Diane Galvan

From: David Watts [watts@geoconinc.com]
Sent: Friday, December 20, 2013 4:02 PM
To: Diane Galvan
Subject: RE: Results/EDD/Invoice - O STREET (1303975)

Thanks.

Please composite P2A/B and P3A/B and run a TCLP (micro extraction).
5-day TAT.



David Watts, CAC | *Senior Project Scientist*
Geocon Consultants, Inc.

6671 Brisa Street, Livermore, California 94550

Tel 925.371.5900, ext. 404 Direct 925.961.5273 Cell 925.785.5340

www.geoconinc.com