ASBESTOS REPORTS AND SURVEYS
VOLUME 6 OF 6

GROUP 7 MODERNIZATION, INTERIM HOUSING AND DEFERRED MAINTENANCE PROJECTS BRADLEY, MARSHALL, RAMONA-ALESSANDRO AND WARM SPRINGS ELEMENTARY SCHOOLS SAN BERNARDINO CITY UNIFIED SCHOOL DISTRICT

February 10, 2010

HMC # 3137106
HMC # 3137114
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Pacific Environmental Company

Limited Asbestos and Lead Survey Report

Bradley Elementary School Modernization Project
1300 Valencia Avenue
San Bernardino, California

Prepared for:

San Bernardino City Unified School District
777 North F Street
San Bernardino, CA 92401

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March 14, 2008

Project Number: 08067

Limited Asbestos and Lead Survey Report

Bradley Elementary School Modernization Project
1300 Valencia Avenue
San Bernardino, California

Executive Summary

Pacific Environmental Company conducted a limited asbestos and lead survey in anticipation of modernizations at Bradley Elementary School, which is located at 1300 Valencia Avenue in the City of San Bernardino, California. All work was conducted by State of California certified personnel and sampling was conducted in accordance with established sampling protocols. Laboratory analysis was performed by AmeriSci Los Angeles, an independent and accredited laboratory.

This executive summary is not to be utilized as a stand-alone document. The report shall be read in its entirety. The reader must review the detailed information provided in the accompanying text. Any interpretation, use, or conclusions resulting from the data contained in this report is the responsibility of the reader.

Asbestos-containing material (ACM) is defined by the Federal Environmental Protection Agency (EPA) as material containing more than one percent asbestos as determined by PLM, however, the California Department of Occupational Safety and Health (CalOSHA) classifies any material as having greater than one tenth of one percent asbestos as asbestos-containing construction material (ACCM).

Asbestos-containing materials identified during our inspection include a transite vent pipe that penetrates the roof in Building C (10LF), the silver roofing paint on Building A, (~3,500 SF), the roof composite material on Building A (~3,500 SF) and roof penetration mastic materials on all of the buildings.

Current EPA regulations require that the asbestos-containing building materials be removed prior to demolition or renovation, if they are going to be impacted. The identified asbestos-containing materials are in good condition and do not require immediate action; however, if they are to be impacted by the renovations, then they must be removed in accordance with State of California Division of Occupational Safety and Health (Cal/OSHA) and South Coast Air Quality Management District (SCAQMD) requirements.

A licensed and certified asbestos abatement contractor must perform any asbestos abatement that takes place at the subject property. Waste generated from the asbestos abatement must be properly transported and disposed of.

Lead components identified at the site include the original porcelain sink fixtures throughout the campus, the ceramic wall tiles in the restrooms of Buildings B, F and MU, the door frames and window frames in Building E, the door frames in MU, the basketball pole on the playground, the painted ceiling on the exterior walkways and the painted eaves, fascia boards, columns and exposed joists on the exterior of the buildings. The lead-laden paint, ceramic and porcelain finishes are generally in good condition but will likely need to be removed to facilitate the modernizations at the site.

Existing fluorescent lamps (containing mercury vapor) should be removed, and the mercury recycled. PCB-containing electrical ballasts in light fixtures should also be segregated, and either disposed in a hazardous waste landfill or incinerated, in accordance with federal and state regulations and DTSC guidelines.

Pacific Environmental recommends that all future renovation, demolition, construction or abatement activities with the potential for disturbing the identified ACM or lead laden ceramic tile, be performed by properly trained and qualified personnel. These activities should employ state-of-the-art techniques, and be conducted in accordance with all applicable local, State and Federal laws and regulations.

Every effort was made to sample all of the building materials, however some materials may have been concealed and could not be exposed without demolition. If any additional materials are encountered during the demolition or renovation activities, please call us and we will sample and analyze accordingly.

The presence of the identified hazardous materials should be brought to the attention of contractors and personnel involved in the project at the subject site. Specifications have been prepared for the removal and handling of specific hazardous materials, such as those containing asbestos and lead.

Any employees, visitors, or contractors entering this building should be notified of the presence and condition of the asbestos-containing materials, lead-based paints, and other hazardous materials (including those listed under Proposition 65), in accordance with applicable regulations.

Table of Contents

Introduction	1
Quality Control Procedures	2
Site Description	2
Asbestos Inspection and Sampling Procedures	3
Asbestos Inspection Results	5
Summary and Recommendations for Asbestos-Containing Materials	5
Lead Inspection and Sampling Procedures	6
Lead Inspection Results	7
Lead Summary and Recommendations	7
Other Hazardous Materials	7
Limitations	8
References	9

Appendix A	Site Plans
Appendix B	Bulk Sample Summary Table
Appendix C	Asbestos Sample Analysis Reports and Chain of Custody
Appendix D	XRF Sampling Results
Appendix E	DHS Form 8552
Appendix F	XRF Performance Characteristics Sheet

Limited Asbestos and Lead Survey Report

Bradley Elementary School Modernization Project
1300 Valencia Avenue
San Bernardino, California

Introduction

Pacific Environmental Company was retained by the San Bernardino City Unified School District to conduct a limited investigation to identify the presence of asbestos-containing materials, lead-based paints and other lead laden components that will require abatement or treatment, in conjunction with the school modernizations at Bradley Elementary School which is located at 1300 Valencia Avenue in San Bernardino, California.

All work was conducted by State of California certified personnel and sampling was conducted in accordance with established sampling protocols. Laboratory analysis was performed by AmeriSci Los Angeles, an independent and accredited laboratory.

Field Services for the inspection were conducted on February 25-27, 2008. The project team included David Tillema, a Cal/OSHA Certified Site Surveillance Technician and DHS Certified Lead Paint Inspector/Assessor, Thomas Gannon a Cal/OSHA Certified Site Surveillance Technician, and Michael Lyssy, a State Certified Asbestos Consultant and Registered Environmental Assessor.

The scope of work for this project included the following key elements:

- Review, verification and incorporation of the original AHERA inspection and re-inspection data and any subsequent reports detailing the results of prior asbestos and lead testing at the School into this report.
- Inspection and assessment of asbestos-containing materials, lead-based paints, lead glazed ceramics and pcb light ballasts
- Preparation of a final report that is suitable for inclusion in the District's specifications for abatement of hazardous building materials.

Prior to our asbestos assessments, we evaluated the site conditions and developed our sampling strategy to ensure identification of all asbestos-containing materials. Representative sampling of homogeneous materials was conducted per SCAQMD guidelines, and all identifiable suspect materials were sampled. Asbestos analysis was performed by an independent, State Certified, NVLAP Accredited Laboratory. Bulk samples were analyzed by polarized light microscopy (PLM), EPA Method 600/R-93/116. This report details the specific site conditions and estimated quantities of Asbestos Containing Material (ACM) for the project. Areas affected by destructive sampling were repaired so as not to cause hazards to school personnel, survey crew, visitors and the general public.

Testing for lead-based paint was performed using an EDAX Map-4 portable X-ray fluorescence (XRF) spectrum analyzer. Testing was modeled after the protocol outlined in the Department of Housing and Urban Developments document titled Lead-Based Paint: Interim Guidelines For Hazard Identification and Abatement in Public and Indian Housing (1997 Revision).

Quality Control Procedures

Pacific Environmental Company's integrated resources, technologies, discipline, and expertise combine to ensure that the inspection and analysis for each project is conducted based on the following principles:

- All applicable regulations are addressed in order to ensure that our field inspectors and lab personnel meet their responsibilities, do so cost-effectively, and are equipped with the practical knowledge they need in order to understand and comply with regulations that affect them.
- Care is taken to make certain that the information provided and actions recommended are practical and cost effective in achieving regulatory compliance.

The 'management' approach utilized for this project assured that all work was performed using the highest standard of quality. All project results, reports and recommendations are reviewed for accuracy, content and quality prior to presentation. We recognize that, for each assignment we undertake, the information we develop and the conclusions and advice we provide, will be used to support important management decisions.

Pacific Environmental Company's Quality Assurance Program requires that all personnel:

- Provide specific objectives so that project activities can be evaluated with regard to precision, accuracy, reproducibility, completeness, and comparability.
- Provide specific guidance on the proper methodology for all activities.
- Be provided with ongoing training to enhance their technical skills.
- Be trained in QA/QC procedures and QC activities.
- Review all reports until they are acceptable in terms of technical and editorial quality, and all quality assurance activities have been successfully performed.

Site Description

Bradley Elementary School campus consists of nine school buildings which are connected with a covered walkway and several portable classrooms. The school was built approximately fifty years ago.

The school buildings are wood and metal framed structures that are finished with stucco. The interior finishes include plaster and drywall walls and ceilings with applications of acoustical tile and suspended ceilings. The floors are covered with a variety of carpet and vinyl floor tile materials.

Asbestos Inspection and Sampling Procedures

Asbestos-containing material (ACM) is defined by the Federal Environmental Protection Agency (EPA) as material containing more than one percent asbestos, as determined by polarized light microscopy (PLM). Title 8, Section 1529, of the California Code of Regulations, however, defines asbestos-containing construction material (ACCM) as any manufactured construction material that contains more than one-tenth of one percent asbestos by weight.

We reviewed the District's asbestos records on file in order to formulate our sampling strategy. The only documentation on file for the site was a site plan. We collected samples of all identifiable suspect building materials for material analysis to properly characterize the site conditions.

A visual assessment of the suspect building materials located throughout the subject facility was completed prior to the collection of samples. During the visual assessment, the building materials suspected of containing asbestos were categorized by homogeneous areas. Materials are classified as homogenous when they appear uniform, have a consistent texture, and appear to have been installed at the same time.

The laboratory testing for the bulk samples was conducted in accordance with the recommended EPA Interim Method for Determination of Asbestos in Bulk Samples (EPA-600/R-93/116, July 1993).

The field investigation began with an initial site walk-through and identification of homogenous building materials suspected of containing asbestos. Samples were collected based on building layout, structural features, and mechanical and plumbing systems. Pacific Environmental then performed the following tasks:

- Evaluated whether materials suspected of containing asbestos were present at the site.
- Collected bulk samples, as required, to adequately characterize the suspect materials.
- Identified approximate sample locations and locations of identified ACM on field drawings or with photographs.
- Estimated the amount of ACM, where access allowed.
- Assessed the condition of the suspected and known ACMs.

At the time of inspection, suspect materials are assessed to be in good, damaged, or significantly damaged condition based on the following criteria:

> Good Condition - No or very limited visible damage or deterioration observed.
>
> Damaged Condition - Crumbling, blistering, water damage, gouges or other damage observed over less than 25% of the materials (one-tenth if evenly distributed); or accumulation of suspect powder, dust or debris observed below the material.
>
> Significantly Damaged - Crumbling, blistering, water damage, gouges or other damage observed over greater than 25% of the materials (one-tenth if evenly distributed); material delaminating or showing adhesive failure; or accumulation of suspect powder, dust or debris observed below the material.

The assessment process also includes classifying the material as Friable ACM or Non-Friable ACM. Friable ACM is the term given to any material that contains more than one percent (1%) asbestos by weight, which can be crumbled, pulverized, or reduced to powder by hand or mechanical pressure. The word "Friability" refers to a material's likeliness to release airborne fibers when in situ, or under mechanical pressure. There is a greater possibility that a friable material will release fibers into the air when disturbed than will a non-friable material (i.e., floor tiles, roofing materials, etc.), thereby causing a potential hazard.

After identifying those materials suspected of containing asbestos, the materials were grouped into homogeneous sampling areas. A homogeneous sampling area includes building materials that are uniform in texture and color and appear identical in every other respect. A modified AHERA protocol was used in estimating the number of samples to be collected. Actual samples collected were determined by field conditions. A total of ninety-six (96) bulk samples were collected and analyzed.

Bulk samples were collected by wetting the suspect material with amended water and cutting, scraping or coring it from its substrate using an appropriate sampling tool. Sampling tools were cleaned before and after each use to prevent cross contamination between sampling events. Small quantities of material, approximately 1/2 square inch each, were extracted from suspect materials and placed in sterile, airtight bags or vials, and sealed. Each sample was labeled with a unique identification number, utilizing a sequential numbering system. The sample was logged in on the bulk survey sheet and a description noted on the type of sample. Each sample container was then placed inside a larger sterile, airtight bag. As other samples were taken from each area, they were also placed inside this larger airtight bag. Sample locations were repaired using caulk, spray glue, encapsulant, or patching material as needed, but were not always returned to their original condition. The samples were transported under chain-of-custody to an independent NVLAP participating laboratory for analysis utilizing polarized light microscopy.

The laboratory testing was conducted in accordance with the EPA Interim Method for Determination of Asbestos in Bulk Samples (EPA-600/R-93/116, July 1993). Samples were examined for homogeneity, and non-homogeneous samples were ground to ensure homogeneity. Microscopic slides were prepared from each sample using a refractive index liquid, such as trisection and ethyl cinnamate, having a refractive index of 1.550; 1-bromo-naphthalene and 1-Iodonaphthalene, having a refractive index of 1.680; or hydrogenated terthenyl and 1-bromonaphtahlene, having a refractive index of 1.605. The slides were then examined for the presence of asbestos, utilizing polarized light microscopy (PLM) and dispersion staining techniques.

The percentage of asbestos was estimated by visual examination of fibers greater than five microns in length and with an aspect ratio of 3:1 or greater. The aspect ratio of 3:1 refers to the length of the fiber being three times as long as its width. If present, the identity of asbestos fibers was confirmed with appropriate refractive index liquids, application of dispersion staining and other techniques. The results were tabulated and detailed in the laboratory reports, which are included in the appendices of this report.

Asbestos Inspection Results

Asbestos Based on our assessment services, the following materials were confirmed, or assumed, to contain greater than one percent (1%) asbestos, and are therefore classified as ACM.

Material	Location	Estimated Quantity
Silver Roofing Paint and Roofing Composite	Building A	3,500 SF
Transite Vent Pipes	Building C	10 LF
Roof Penetrations Mastics	Roof Penetrations throughout campus	400 SF

The Bulk Sample Summary Table, which identifies each sample and the corresponding analytical results, is included in Appendix B., The laboratory reports and chain of custody forms are included in Appendix C.

Summary and Recommendations for Asbestos-Containing Materials

All ACM that will be impacted by the planned modernizations must be removed pursuant to Rule 1403 of the South Coast Air Quality Management District's and CalOSHA Asbestos Regulations.

Abatement activities must be conducted in compliance with all applicable regulations, standards and generally accepted environmental and safety practices, including Federal OSHA (29 CFR 1926.58), EPA NESHAPS (40 CFR Part 61), and Toxic Substances Control Act (TSCA) Title II AHERA/ASHARA (40 CFR Part 763) Asbestos Regulations, the Occupational Safety and Health Administration, Asbestos Construction Standard, 29 CFR 1926.1101, and Title 8, California Code of Regulations Section 1529, Cal-OSHA Construction Standard.

All asbestos waste must be properly disposed of and documented. Waste Manifests must be submitted at the end of a project. Disposing of a known hazardous waste is illegal in the State of California. Every effort was made to sample all of the building materials, however some materials may have been concealed and could not be exposed without demolition. If any additional materials are encountered during the demolition activities, we will arrange to sample and analyze them accordingly.

Lead Inspection and Sampling Procedures

Lead-based paint and lead glazing on ceramics is of concern both as a source of direct exposure through ingestion of paint chips, and as a contributor to lead interior dust and exterior soil. Lead was widely used as a major ingredient in most interior and exterior oil-based paints prior to 1950. Lead compounds continued to be used as corrosion inhibitors, pigments and drying agents beginning in the early 1950's. In 1972, the Consumer Products Safety Commission limited lead content in new paint to 0.5% (5000 ppm) and, in 1978, to 0.06% (600 ppm). It has also been used extensively as a glaze on ceramic and porcelain finishes.

The U.S. Department of Housing and Urban Development (HUD) and the U.S. Environmental Protection Agency (EPA) define an inspection as a surface-by-surface investigation to determine the presence of lead-based paint (see 40 CFR part 745 and Title X of the 1992 Housing and Community Development Act).

As per the EPA & HUD guidelines, lead-based paint is defined as a dried paint film with a lead concentration of greater than or equal to 1.0 mg/cm2 or 0.5 percent by weight. Lead paint amounts were reported in mg/cm2 because this unit of measurement does not depend on the number of layers of non-lead based paint.

Portable XRF lead-based paint analyzers are the most common primary analytical method for inspections because of their demonstrated abilities to:

1. Determine if lead is present on many different types of surfaces

2. Measure the paint without destructive sampling or paint removal

3. Provide sample results immediately and at a relatively low cost per sample

Portable XRF instruments expose a building component to X-rays or gamma radiation, which causes lead to emit X-rays with a characteristic frequency or energy. The intensity of this radiation is measured by the XRF instrument. The inspector must then compare this displayed value (reading) with the inconclusive range or threshold specified in the XRF Performance Characteristic Sheet for the specific substrate beneath the painted surface. If the reading is less than the lower boundary of the inconclusive range, or less than the threshold, then the reading is considered negative. If the reading is greater than the upper boundary of the inconclusive range, or greater or equal to the threshold, then the reading is considered positive. Readings within the inconclusive range, including its boundary values, are considered inconclusive. Because the inconclusive ranges and/or thresholds shown in the Performance Characteristic Sheet are based on 1.0 mg/cm2, positive and negative readings are consistent with the HUD definition of lead-based paint for identification and disclosure purposes. The method employed for paint testing for this project was X-Ray Fluorescence (XRF) using an EDAX MAP4 lead paint analyzer (Serial Number M41509) with the capability to measure the lead content in dry paint films in the range of 0 to 50 milligrams per square centimeter.

The instrument's calibration was verified according to the manufacturer's specifications, in compliance with the Performance Characteristic Sheet (PCS) developed for this instrument. The PCS is located in Appendix F of this report. The readings from this instrument produce a 95% confidence level that the "lead" reading accurately reflects the actual level of lead in the tested surfaces, relative to the federal action level. Current industry standards suggest that, when it is determined that paint abatement and/or interim control activities will be performed on components, they should be performed according to practices that are in the HUD Guidelines and the regulations under section 402 of the Toxic Substances Control Act (TSCA), 15 USC 2682.

Lead Inspection Results

Sampling for this inspection was representative and any components that were not tested, but are similar to those components that tested positive for lead, should be considered and treated as lead laden.

Lead components identified at the site include the original porcelain sink fixtures throughout the campus, the ceramic wall tiles in the restrooms of Buildings B, F and MU, the door frames and window frames in Building E, the door frames in MU, the basketball pole on the playground, the painted ceiling on the exterior walkways and the painted eaves, fascia boards, columns and exposed joists on the exterior of the buildings.

The lead-laden paint, ceramic and porcelain finishes are generally in good condition but will likely need to be removed to facilitate the modernizations at the site.

Lead Summary and Recommendations

The federal and CAL/OSHA regulations for lead in construction do not specify a level of a lead in paint that classifies it as LBP. However, federal and state OSHA regulations specify ***airborne lead levels*** that should not be exceeded during construction without appropriate protection and training.

The action level for lead is 30 micrograms per cubic meter of air (µg/m3), and the permissible exposure limit (PEL) is 50 µg/m3. These airborne lead levels can be exceeded during construction activities such as scraping, sanding, grinding, blasting, and torching LBP surfaces, even when levels of lead in paint are far below the HUD definition of LBP of 1.0 mg/cm2 or 0.5 percent lead by weight. The XRF is designed to accurately quantify paint around the set abatement level (1.0 mg/cm2, 5,000 parts per million, or 0.5 percent by weight). However, painted surfaces tested with XRF that result in instrument readings much less than 1.0 mg/cm2 (even 0.0 mg/cm2 and negative results) may contain amounts of lead that could create an airborne hazard to workers during construction.

Based on the levels of lead in the ceramic glazings and porcelain sinks identified in the building survey, Pacific Environmental recommends that only properly trained and equipped individuals be assigned site preparation tasks that would involve demolition of these components. Procedures and engineering controls must be designed to follow CAL/OSHA and Department of Health Services (State of California) requirements, and workers must wear appropriate personal protective equipment during the work.

Other Hazardous Materials

During our assessment of the structures, we visually inspected the locations of fluorescent light tubes and PCB ballasts. There are fluorescent fixtures throughout the main building with ballasts that are assumed to contain PCB's and fluorescent tubes. All PCB's and spent fluorescent light tubes should be handled, packaged and disposed of in compliance with current California Environmental Protection Agency, Department of Toxic Substances Control Guidelines.

Limitations

This report is not intended to identify all hazards or unsafe conditions or to imply that others do not exist. This survey was planned and implemented on the basis of a mutually agreed upon scope of work, and Pacific Environmental's experience in performing this type of assessment.

Pacific Environmental has performed this survey in a professional manner, using the degree of skill and care exercised for similar projects, under similar conditions, by reputable and competent environmental consultants. Pacific Environmental shall not be responsible for conditions or consequences arising from relevant facts that were concealed, withheld, or not fully disclosed at the time that this survey was conducted.

Pacific Environmental further states that no warranties, expressed or implied, are made regarding the quality, fitness, or results to be achieved as a consequence of this report, or impacted by information not properly disclosed to Pacific at the time of this report. It further states that no responsibility is assumed for the control or correction of conditions or practices existing at the premises of the client.

References

Title 17, California Code of Regulations, Division 1, Chapter 8: Accreditation, Certification and Work Practices for Lead-Based Paint and Lead Hazards

Title 8, California Code of Regulations, Section 1532.1: Cal/OSHA Construction Safety Orders, Lead

"Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing," US Department of Housing and Urban Development, June 1995

South Coast Air Quality Management District Requirements (Rule 1403)

National Emissions Standards for Hazardous Air Pollutants, 40 CFR 61, M

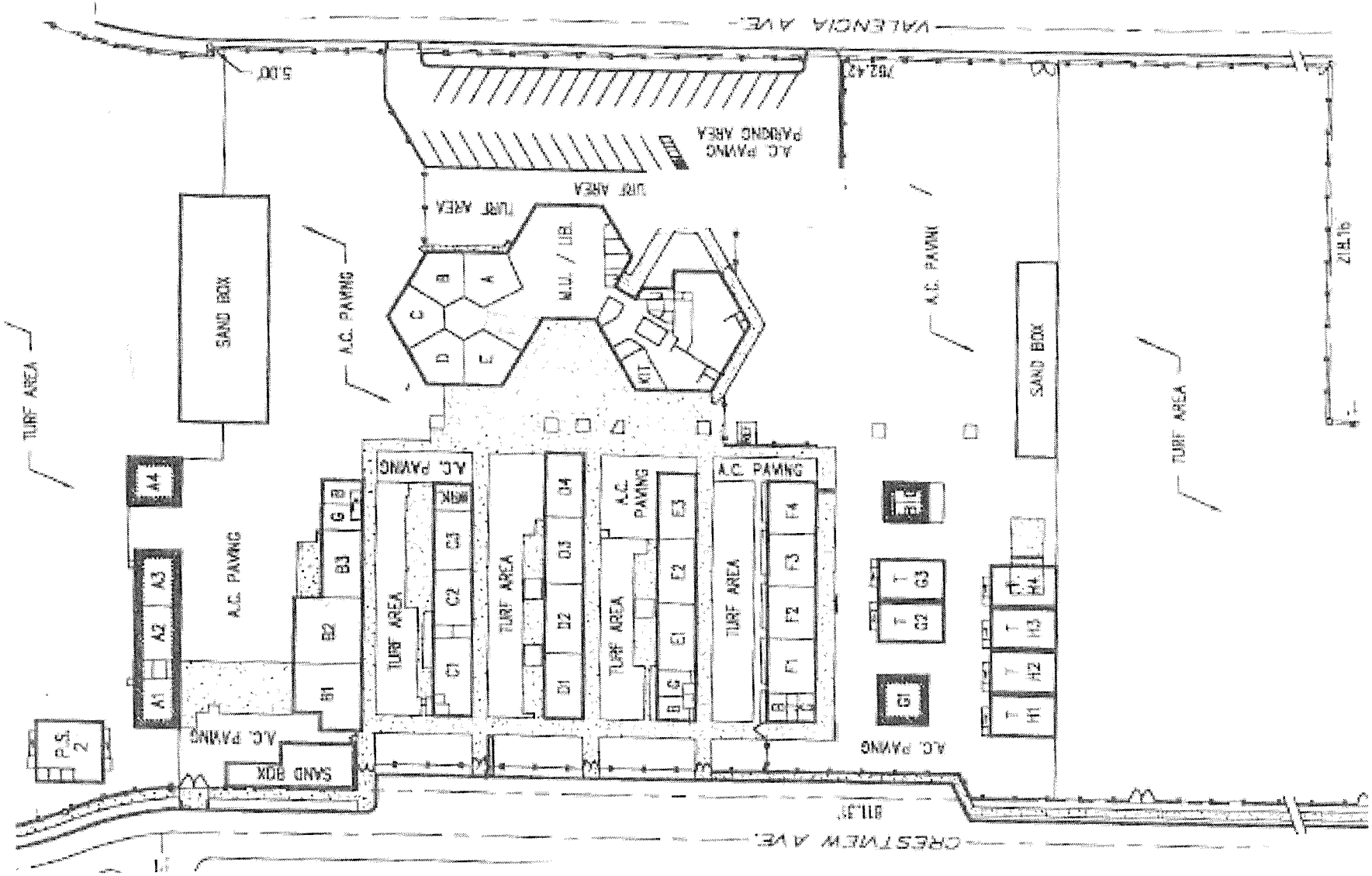
Occupational Safety and Health Administration, Asbestos in the Workplace, 29 CFR 1910.1001

Occupational Safety and Health Administration, Asbestos Construction Standard, 29 CFR 1926.1101

Title 8, California Code of Regulations Section 1529, Cal-OSHA Construction Standard

Appendix A

Site Plan



DATE PREPARED: 3/7/2008	DRAWN BY: M.L.	DRAWING TITLE: Site Plan/Sample Plan Bradley Elementary School 1300 Valencia Avenue San Bernardino, California
REVISION:	SOURCE: SBCUSD	
PROJECT NO: 08067	OTHER:	
PROJECT NAME: Limited Asbestos and Lead Survey		CLIENT: San Bernardino City Unified School District

FIGURE NO. 1

Appendix B

Bulk Sample Summary Table

BRADLEY ELEMENTARY SCHOOL
BULK SAMPLE SUMMARY

Sample No.	Sample Description	Sample Location	Asbestos %
001	Drywall and Joint Compound	A3	NAD
002	2'X4' Ceiling Tile	A3	NAD
003	Tan 12" Vinyl Floor Tile	A3	NAD
004	2'X4' Ceiling Tile	A2	NAD
005	2'X4' Ceiling Tile	A1	NAD
006	Drywall and Joint Compound	A2	NAD
007	Drywall and Joint Compound	A1	NAD
008	Lt. Brown 12" Vinyl Floor Tile & Mastic	A! Boy's Restroom	NAD
009	Tan 12" Vinyl Floor Tile	B1	NAD
010	2'X4' Ceiling Tile	B1	NAD
011	2'X4' Ceiling Tile	B2	NAD
012	2'X4' Ceiling Tile	B3	NAD
013	Plaster	B1	NAD
014	Plaster	B2	NAD
015	Plaster	B3	NAD
016	2'X4' Ceiling Tile	C4	NAD
017	2'X4' Ceiling Tile	C4	NAD
018	2'X4' Ceiling Tile	C4	NAD
019	2'X4' Ceiling Tile	C4	NAD
020	2'X4' Ceiling Tile	C3	NAD
021	2'X4' Ceiling Tile	C2	NAD
022	Beige 12" Vinyl Floor Tile & Mastic	C4	NAD
023	Cream 12" Vinyl Floor Tile & Mastic	C3	NAD
024	Plaster	C1	NAD
025	Plaster	C1	NAD
026	Plaster	C1	NAD
027	Ceiling Panel	D1	NAD
028	Ceiling Panel	D2	NAD
029	Ceiling Panel	D3	NAD
030	Tan 12" Vinyl Floor Tile	D1	NAD
031	Drywall and Joint Compound	D1	NAD
032	Drywall and Joint Compound	D1	NAD
033	Drywall and Joint Compound	D1	NAD
034	Ceiling Panel	E3	NAD
035	Ceiling Panel	E2	NAD
036	Ceiling Panel	E!	NAD
037	Tan 12" Vinyl Floor Tile	E3	NAD
038	Plaster	E3	NAD
039	Plaster	E3	NAD
040	Plaster	E3	NAD
041	Black Mastic	E Building Girl's Restroom	NAD
042	Tan 12" Vinyl Floor Tile	F4	NAD
043	Plaster	F4	NAD
044	Plaster	F3	NAD
045	Plaster	F2	NAD
046	Ceiling Panel	F4	NAD
047	Ceiling Panel	F3	NAD
048	Ceiling Panel	F2	NAD
049	12" Ceiling Tile	F Building Boy's Restroom	NAD
050	12" Ceiling Tile	F Building Boy's Restroom	NAD
051	12" Ceiling Tile	F Building Boy's Restroom	NAD
052	2'X4' Ceiling Tile	Office	NAD
053	2'X4' Ceiling Tile	MU	NAD
054	2'X4' Ceiling Tile	B Hexagon	NAD
055	White 12" Vinyl Floor Tile	MU	NAD
056	Plaster	MU	NAD

BRADLEY ELEMENTARY SCHOOL
BULK SAMPLE SUMMARY

057	Plaster	MU	NAD
058	Plaster	Office	NAD
059	Roof Core	Walkway	NAD
060	Roof Core	Pod (sheets)	NAD
061	Roof Core	Pod (rock)	NAD
062	Penetration Mastic	Pod	NAD
063	Roof Core	Building D	NAD
064	Penetration Mastic	Building D	NAD
065	Roof Core	Building E	NAD
066	Penetration Mastic	Building E	10% Chrysotile
067	Roof Core	Building F	NAD
068	Penetration Mastic	Building F	6% Chrysotile
069	Roof Core	Building C	NAD
070	Penetration Mastic	Building C	5% Chrysotile
071	Roof Core	Building B	NAD
072	Penetration Mastic	Building B	3% Chrysotile
073	Roofiing Mastic	Building A4	3% Chrysotile
074	Silver Roofing Paint	Building A	4% Chrysotile
075	Roof Core	Building A	4% Chrysotile
076	Exterior Stucco	Building A	NAD
077	Exterior Stucco	Building A	NAD
078	Exterior Stucco	Building A	NAD
079	Exterior Stucco	Building B	NAD
080	Exterior Stucco	Building B	NAD
081	Exterior Stucco	Building B	NAD
082	Exterior Stucco	Building C	NAD
083	Exterior Stucco	Building C	NAD
084	Exterior Stucco	Building C	NAD
085	Exterior Stucco	Building D	NAD
086	Exterior Stucco	Building D	NAD
087	Exterior Stucco	Building D	NAD
088	Exterior Stucco	Building E	NAD
089	Exterior Stucco	Building E	NAD
090	Exterior Stucco	Building E	NAD
091	Exterior Stucco	Building F	NAD
092	Exterior Stucco	Building F	NAD
093	Exterior Stucco	Building F	NAD
094	Exterior Stucco	Pod Building	NAD
095	Exterior Stucco	Pod Building	NAD
096	Exterior Stucco	Pod Building	NAD

Appendix C

Asbestos Sample Analysis Reports and Chain of Custody

AmeriSci Los Angeles
24416 S. Main Street, Ste 308
Carson, California 90745
TEL: (310) 834-4868 • FAX: (310) 834-4772

PLM Bulk Asbestos Report

Pacific Environmental Company
Attn: Mike Lyssy
28202 Cabot Road
Suite 300
Laguna Niguel, CA 92677

Date Received 03/06/08
Date Examined 03/07/08

RE: Bradley E.S.

AmeriSci Job # 908031128
P.O. #

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
001	908031128-01.1	*No*	NAD (by CVES) by Olga K. Katsuk on 03/07/08
Location: Drywall/Joint Compound / A-3			
Analyst Description: Beige, Homogeneous, Non-Fibrous, Drywall			
Asbestos Types:			
Other Material: Non-fibrous 100 %			
001	908031128-01.2	*No*	NAD (by CVES) by Olga K. Katsuk on 03/07/08
Location: Drywall/Joint Compound / A-3			
Analyst Description: White, Homogeneous, Non-Fibrous, Joint Compound			
Asbestos Types:			
Other Material: Non-fibrous 100 %			
002	908031128-02	*No*	NAD (by CVES) by Olga K. Katsuk on 03/07/08
Location: 2'x4' CP / A-3			
Analyst Description: White, Heterogeneous, Fibrous, Bulk Material			
Asbestos Types:			
Other Material: Cellulose 50 %, Fibrous glass 20 %, Non-fibrous 30 %			
003	908031128-03	*No*	NAD (by CVES) by Olga K. Katsuk on 03/07/08
Location: 12"x12" Tan VFT / A-3			
Analyst Description: Tan, Homogeneous, Non-Fibrous, Bulk Material			
Asbestos Types:			
Other Material: Non-fibrous 100 %			
Comment: No Mastic found			

See Reporting notes on last page

PLM Bulk Asbestos Report

Bradley E.S.

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
004	908031128-04	*No*	NAD (by CVES) by Olga K. Katsuk on 03/07/08
Location: 2'x4' CP / A-2			
Analyst Description: White, Heterogeneous, Fibrous, Bulk Material			
Asbestos Types:			
Other Material: Cellulose 50 %, Fibrous glass 20 %, Non-fibrous 30 %			
005	908031128-05	*No*	NAD (by CVES) by Olga K. Katsuk on 03/07/08
Location: 2'x4' CP / A-1			
Analyst Description: White, Heterogeneous, Fibrous, Bulk Material			
Asbestos Types:			
Other Material: Cellulose 50 %, Fibrous glass 15 %, Non-fibrous 35 %			
006	908031128-06.1	*No*	NAD (by CVES) by Olga K. Katsuk on 03/07/08
Location: Drywall/Joint Compound / A-2			
Analyst Description: Beige, Homogeneous, Non-Fibrous, Drywall			
Asbestos Types:			
Other Material: Non-fibrous 100 %			
006	908031128-06.2	*No*	NAD (by CVES) by Olga K. Katsuk on 03/07/08
Location: Drywall/Joint Compound / A-2			
Analyst Description: White, Homogeneous, Non-Fibrous, Joint Compound			
Asbestos Types:			
Other Material: Non-fibrous 100 %			
007	908031128-07.1	*No*	NAD (by CVES) by Olga K. Katsuk on 03/07/08
Location: Drywall/Joint Compound / A-1			
Analyst Description: Beige, Homogeneous, Non-Fibrous, Drywall			
Asbestos Types:			
Other Material: Non-fibrous 100 %			
007	908031128-07.2	*No*	NAD (by CVES) by Olga K. Katsuk on 03/07/08
Location: Drywall/Joint Compound / A-1			
Analyst Description: White, Homogeneous, Non-Fibrous, Joint Compound			
Asbestos Types:			
Other Material: Non-fibrous 100 %			

See Reporting notes on last page

PLM Bulk Asbestos Report

Bradley E.S.

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
008	908031128-08L1	*No*	NAD (by CVES) by Olga K. Katsuk on 03/07/08
Location: 12"x12" Light Brown VFT w/Color By Specs / A-1 Boy's R.R			
Analyst Description: Light Brown, Homogeneous, Non-Fibrous, Flooring			
Asbestos Types:			
Other Material: Non-fibrous 100 %			
008	908031128-08L2	*No*	NAD (by CVES) by Olga K. Katsuk on 03/07/08
Location: 12"x12" Light Brown VFT w/Color By Specs / A-1 Boy's R.R			
Analyst Description: Yellow, Homogeneous, Non-Fibrous, Mastic			
Asbestos Types:			
Other Material: Non-fibrous 100 %			
009	908031128-09	*No*	NAD (by CVES) by Olga K. Katsuk on 03/07/08
Location: 12"x12" Tan VFT / B-1			
Analyst Description: Tan, Homogeneous, Non-Fibrous, Bulk Material			
Asbestos Types:			
Other Material: Non-fibrous 100 %			
Comment: No Mastic found			
010	908031128-10	*No*	NAD (by CVES) by Olga K. Katsuk on 03/07/08
Location: 2'x4' CP / B-1			
Analyst Description: White, Heterogeneous, Fibrous, Bulk Material			
Asbestos Types:			
Other Material: Cellulose 45 %, Fibrous glass 15 %, Non-fibrous 40 %			
011	908031128-11	*No*	NAD (by CVES) by Olga K. Katsuk on 03/07/08
Location: 2'x4' CP / B-2			
Analyst Description: White, Heterogeneous, Fibrous, Bulk Material			
Asbestos Types:			
Other Material: Cellulose 45 %, Fibrous glass 15 %, Non-fibrous 40 %			

See Reporting notes on last page

PLM Bulk Asbestos Report

Bradley E.S.

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
012	908031128-12	*No*	NAD (by CVES) by Olga K. Katsuk on 03/07/08
Location: 2'x4' CP / B-3			
Analyst Description: White, Heterogeneous, Fibrous, Bulk Material			
Asbestos Types:			
Other Material: Cellulose 50 %, Fibrous glass 20 %, Non-fibrous 30 %			
013	908031128-13	*No*	NAD (by CVES) by Olga K. Katsuk on 03/07/08
Location: Plaster / B-1			
Analyst Description: Tan, Homogeneous, Non-Fibrous, Bulk Material			
Asbestos Types:			
Other Material: Non-fibrous 100 %			
014	908031128-14	*No*	NAD (by CVES) by Olga K. Katsuk on 03/07/08
Location: Plaster / B-2			
Analyst Description: Tan, Homogeneous, Non-Fibrous, Bulk Material			
Asbestos Types:			
Other Material: Non-fibrous 100 %			
015	908031128-15	*No*	NAD (by CVES) by Olga K. Katsuk on 03/07/08
Location: Plaster / B-3			
Analyst Description: Tan, Homogeneous, Non-Fibrous, Bulk Material			
Asbestos Types:			
Other Material: Non-fibrous 100 %			
016	908031128-16	*No*	NAD (by CVES) by Olga K. Katsuk on 03/07/08
Location: 2'x4' CP / C-4			
Analyst Description: White, Heterogeneous, Fibrous, Bulk Material			
Asbestos Types:			
Other Material: Cellulose 50 %, Fibrous glass 20 %, Non-fibrous 30 %			
017	908031128-17	*No*	NAD (by CVES) by Olga K. Katsuk on 03/07/08
Location: 2'x4' CP Smooth / C-4			
Analyst Description: White/Brown, Heterogeneous, Fibrous, Bulk Material			
Asbestos Types:			
Other Material: Cellulose 95 %, Non-fibrous 5 %			

See Reporting notes on last page

PLM Bulk Asbestos Report

Bradley E.S.

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
018	908031128-18	*No*	NAD (by CVES) by Olga K. Katsuk on 03/07/08
Location: 2'x4' CP Smooth / C-4			
Analyst Description: White/Brown, Heterogeneous, Fibrous, Bulk Material			
Asbestos Types:			
Other Material: Cellulose 90 %, Non-fibrous 10 %			
019	908031128-19	*No*	NAD (by CVES) by Olga K. Katsuk on 03/07/08
Location: 2'x4' CP Smooth / C-4			
Analyst Description: White/Brown, Heterogeneous, Fibrous, Bulk Material			
Asbestos Types:			
Other Material: Cellulose 90 %, Non-fibrous 10 %			
020	908031128-20	*No*	NAD (by CVES) by Olga K. Katsuk on 03/07/08
Location: 2'x4' CP / C-3			
Analyst Description: White, Heterogeneous, Fibrous, Bulk Material			
Asbestos Types:			
Other Material: Cellulose 50 %, Fibrous glass 20 %, Non-fibrous 30 %			
021	908031128-21	*No*	NAD (by CVES) by Olga K. Katsuk on 03/07/08
Location: 2'x4' CP / C-2			
Analyst Description: White, Heterogeneous, Fibrous, Bulk Material			
Asbestos Types:			
Other Material: Cellulose 50 %, Fibrous glass 15 %, Non-fibrous 35 %			
022	908031128-22L1	*No*	NAD (by CVES) by Olga K. Katsuk on 03/07/08
Location: 12"x12" Beige VFT / C-4			
Analyst Description: Off-White, Homogeneous, Non-Fibrous, Flooring			
Asbestos Types:			
Other Material: Non-fibrous 100 %			
022	908031128-22L2	*No*	NAD (by CVES) by Olga K. Katsuk on 03/07/08
Location: 12"x12" Beige VFT / C-4			
Analyst Description: Yellow, Homogeneous, Non-Fibrous, Mastic			
Asbestos Types:			
Other Material: Non-fibrous 100 %			

See Reporting notes on last page

PLM Bulk Asbestos Report

Bradley E.S.

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
023	908031128-23L1	*No*	NAD (by CVES) by Olga K. Katsuk on 03/07/08
Location: 12"x12" Tan VFT / C-3			
Analyst Description: Tan, Homogeneous, Non-Fibrous, Flooring			
Asbestos Types:			
Other Material: Non-fibrous 100 %			
023	908031128-23L2	*No*	NAD (by CVES) by Olga K. Katsuk on 03/07/08
Location: 12"x12" Tan VFT / C-3			
Analyst Description: Cream, Homogeneous, Non-Fibrous, Mastic			
Asbestos Types:			
Other Material: Non-fibrous 100 %			
024	908031128-24	*No*	NAD (by CVES) by Olga K. Katsuk on 03/07/08
Location: Plaster / C-1			
Analyst Description: Tan, Homogeneous, Non-Fibrous, Bulk Material			
Asbestos Types:			
Other Material: Non-fibrous 100 %			
025	908031128-25	*No*	NAD (by CVES) by Olga K. Katsuk on 03/07/08
Location: Plaster / C-1			
Analyst Description: Tan, Homogeneous, Non-Fibrous, Bulk Material			
Asbestos Types:			
Other Material: Non-fibrous 100 %			
026	908031128-26	*No*	NAD (by CVES) by Olga K. Katsuk on 03/07/08
Location: Plaster / C-1			
Analyst Description: Tan, Homogeneous, Non-Fibrous, Bulk Material			
Asbestos Types:			
Other Material: Non-fibrous 100 %			
027	908031128-27	*No*	NAD (by CVES) by Olga K. Katsuk on 03/07/08
Location: CP / D-1			
Analyst Description: White, Heterogeneous, Fibrous, Bulk Material			
Asbestos Types:			
Other Material: Cellulose 50 %, Fibrous glass 20 %, Non-fibrous 30 %			

See Reporting notes on last page

PLM Bulk Asbestos Report

Bradley E.S.

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
028	908031128-28	*No*	NAD (by CVES) by Olga K. Katsuk on 03/07/08
Location: CP / D-2			
Analyst Description: White, Heterogeneous, Fibrous, Bulk Material			
Asbestos Types:			
Other Material: Cellulose 50 %, Fibrous glass 20 %, Non-fibrous 30 %			
029	908031128-29	*No*	NAD (by CVES) by Olga K. Katsuk on 03/07/08
Location: CP / D-3			
Analyst Description: White, Heterogeneous, Fibrous, Bulk Material			
Asbestos Types:			
Other Material: Cellulose 45 %, Fibrous glass 15 %, Non-fibrous 40 %			
030	908031128-30	*No*	NAD (by CVES) by Olga K. Katsuk on 03/07/08
Location: 12"x12" Tan / D-1			
Analyst Description: Tan, Homogeneous, Non-Fibrous, Bulk Material			
Asbestos Types:			
Other Material: Non-fibrous 100 %			
Comment: No Mastic found			
031	908031128-31.1	*No*	NAD (by CVES) by Olga K. Katsuk on 03/07/08
Location: Drywall/Joint Compound / D-1			
Analyst Description: White/Brown, Heterogeneous, Fibrous, Drywall / Tape			
Asbestos Types:			
Other Material: Cellulose 10 %, Non-fibrous 90 %			
031	908031128-31.2	*No*	NAD (by CVES) by Olga K. Katsuk on 03/07/08
Location: Drywall/Joint Compound / D-1			
Analyst Description: White, Homogeneous, Non-Fibrous, Joint Compound			
Asbestos Types:			
Other Material: Non-fibrous 100 %			

See Reporting notes on last page

PLM Bulk Asbestos Report

Bradley E.S.

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
032	908031128-32.1	*No*	NAD (by CVES) by Olga K. Katsuk on 03/07/08
Location: Drywall/Joint Compound / D-1			
Analyst Description: White/Brown, Heterogeneous, Fibrous, Drywall / Tape			
Asbestos Types:			
Other Material: Cellulose 15 %, Non-fibrous 85 %			
032	908031128-32.2	*No*	NAD (by CVES) by Olga K. Katsuk on 03/07/08
Location: Drywall/Joint Compound / D-1			
Analyst Description: White, Homogeneous, Non-Fibrous, Joint Compound			
Asbestos Types:			
Other Material: Non-fibrous 100 %			
033	908031128-33	*No*	NAD (by CVES) by Olga K. Katsuk on 03/07/08
Location: Drywall/Joint Compound / D-1			
Analyst Description: White, Homogeneous, Non-Fibrous, Joint Compound			
Asbestos Types:			
Other Material: Non-fibrous 100 %			
Comment: No Drywall found			
034	908031128-34	*No*	NAD (by CVES) by Olga K. Katsuk on 03/07/08
Location: CP / E-3			
Analyst Description: White, Heterogeneous, Fibrous, Bulk Material			
Asbestos Types:			
Other Material: Cellulose 45 %, Fibrous glass 15 %, Non-fibrous 40 %			
035	908031128-35	*No*	NAD (by CVES) by Olga K. Katsuk on 03/07/08
Location: CP / E-2			
Analyst Description: White, Heterogeneous, Fibrous, Bulk Material			
Asbestos Types:			
Other Material: Cellulose 45 %, Fibrous glass 20 %, Non-fibrous 35 %			

See Reporting notes on last page

PLM Bulk Asbestos Report

Bradley E.S.

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
036 **Location:** CP / E-1	908031128-36	***No***	NAD (by CVES) by Olga K. Katsuk on 03/07/08
Analyst Description: White, Heterogeneous, Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Cellulose 50 %, Fibrous glass 15 %, Non-fibrous 35 %			
037 **Location:** 12"x12" Tan / E-3	908031128-37L1	***No***	NAD (by CVES) by Olga K. Katsuk on 03/07/08
Analyst Description: Tan, Homogeneous, Non-Fibrous, Flooring **Asbestos Types:** **Other Material:** Non-fibrous 100 %			
037 **Location:** 12"x12" Tan / E-3	908031128-37L2	***No***	NAD (by CVES) by Olga K. Katsuk on 03/07/08
Analyst Description: Yellow, Homogeneous, Non-Fibrous, Mastic **Asbestos Types:** **Other Material:** Non-fibrous 100 %			
038 **Location:** Plaster / E-3	908031128-38	***No***	NAD (by CVES) by Olga K. Katsuk on 03/07/08
Analyst Description: Beige, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 100 %			
039 **Location:** Plaster / E-3	908031128-39	***No***	NAD (by CVES) by Olga K. Katsuk on 03/07/08
Analyst Description: Beige, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 100 %			
040 **Location:** Plaster / E-3	908031128-40	***No***	NAD (by CVES) by Olga K. Katsuk on 03/07/08
Analyst Description: Beige, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 100 %			

See Reporting notes on last page

PLM Bulk Asbestos Report

Bradley E.S.

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
041	908031128-41	***No***	NAD (by CVES) by Olga K. Katsuk on 03/07/08
Location: Black Mastic / E Building Girl's R.R			
Analyst Description: Black, Homogeneous, Non-Fibrous, Bulk Material			
Asbestos Types:			
Other Material: Non-fibrous 100 %			
042	908031128-42	***No***	NAD (by CVES) by Olga K. Katsuk on 03/07/08
Location: 12"x12" Tan / F-4			
Analyst Description: Tan, Homogeneous, Non-Fibrous, Bulk Material			
Asbestos Types:			
Other Material: Non-fibrous 100 %			
Comment: No Mastic found			
(	908031128-43	***No***	NAD (by CVES) by Olga K. Katsuk on 03/07/08
Location: Plaster / F-4			
Analyst Description: Grey, Heterogeneous, Non-Fibrous, Cementitious, Bulk Material			
Asbestos Types:			
Other Material: Non-fibrous 100 %			
044	908031128-44	***No***	NAD (by CVES) by Olga K. Katsuk on 03/07/08
Location: Plaster / F-3			
Analyst Description: Grey, Heterogeneous, Non-Fibrous, Cementitious, Bulk Material			
Asbestos Types:			
Other Material: Non-fibrous 100 %			
045	908031128-45	***No***	NAD (by CVES) by Olga K. Katsuk on 03/07/08
Location: Plaster / F-2			
Analyst Description: Grey, Heterogeneous, Non-Fibrous, Cementitious, Bulk Material			
Asbestos Types:			
Other Material: Non-fibrous 100 %			

See Reporting notes on last page

PLM Bulk Asbestos Report

Bradley E.S.

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
046	908031128-46	*No*	NAD (by CVES) by Olga K. Katsuk on 03/07/08
Location: CP / F-4			
Analyst Description: White/Grey, Heterogeneous, Fibrous, Bulk Material			
Asbestos Types:			
Other Material: Cellulose 50 %, Fibrous glass 15 %, Non-fibrous 35 %			
047	908031128-47	*No*	NAD (by CVES) by Olga K. Katsuk on 03/07/08
Location: CP / F-3			
Analyst Description: White/Grey, Heterogeneous, Fibrous, Bulk Material			
Asbestos Types:			
Other Material: Cellulose 50 %, Fibrous glass 15 %, Non-fibrous 35 %			
048	908031128-48	*No*	NAD (by CVES) by Olga K. Katsuk on 03/07/08
Location: CP / F-2			
Analyst Description: White/Grey, Heterogeneous, Fibrous, Bulk Material			
Asbestos Types:			
Other Material: Cellulose 45 %, Fibrous glass 15 %, Non-fibrous 40 %			

Reporting Notes:
Analyzed By: Olga K. Katsuk _____; Date Analyzed: 3/7/2008 03.07.08
*NAD = no asbestos detected; Detection Limit <1%; Reporting Limits: CVES = 1%, 400 Pt Ct = 0.25%, 1000 Pt Ct = 0.1%; NA = not analyzed; NA/PS = not analyzed / positive stop; NVA = No Visible Asbestos; PLM (polarized light microscopy) Bulk Asbestos Analysis by EPA 600/M4-82-020 per 40 CFR 763 (NVLAP Lab #200346-0, ~~CA ELAP~~ lab #2322); Note: PLM is not consistently reliable in detecting asbestos in floor coverings and similar NOB terials. TEM is currently the only method that can be used to determine if this material can be considered or treated as non-asbestos-containing in N York State (also see EPA Advisory for floor tile, FR 59, 146, 38970, 8/1/94). NIST Accreditation requirements mandate that this report must not be reproduced except in full with the approval of the laboratory. This PLM report relates ONLY to the items tested.
Reviewed By: _____ 3/10/08

908031128

PACIFIC ENVIRONMENTAL

Date:	2/25/08
Client:	
Site:	Bradley E.S.
Project No:	
Inspector(s):	D.T.

ASBESTOS BULK SAMPLE FIELD LOG AND CHAIN OF CUSTODY

Sample Number	Material Sampled	Sample Location	Condition
001	Dry wall/joint compound	A-3	D.
002	2"x4" CP	A-3	D
003	12"x12" tan VFT	A-3	D
004	2'x4' CP	A-2	D
005	2'x4' CP	A-1	D
006	Dry wall /joint compound	A-2	D
007	Dry wall / joint compound	A-1	D
008	12"x12" light brown VFT w/ color by specs	A-1 Boy's RR.	D
009	12"x12" tan VFT	B-1	D
010	2'x4' CP	B-1	D
011	⊥	B-2	D
012		B-3	D
013	Plaster	B-1	D
014	⊥	B-2	D
015		B-3	D
016	2'x4' CP	C-4	D
017	2'x4' CP Smooth	⊥	D
018	⊥		D
019		⊥	D
020	2'x4' CP	C-3	D
021	2'x4' CP	C-2	D
022	12"x12" beige VFT	C-4	D
023	12"x12" tan VFT	C-3	D
024	Plaster	C-1	D

Analytical Method: PLM

Turn Around Time: Standard

Please fax results to (714)776-3500 and mail to

Pacific Environmental Company
1475 S. State College Blvd., Suite 212
Anaheim, California 92806

CHAIN OF CUSTODY:

Date/Time	Name	Signature
2/25/08	David Tillema	
2/26/08 @ 10:00	S. Tahmildari	

908031128-

PACIFIC ENVIRONMENTAL

Date:	
Client:	
Site:	Bradley E.S.
Project No:	
Inspector(s):	D.T.

ASBESTOS BULK SAMPLE FIELD LOG AND CHAIN OF CUSTODY

Sample Number	Material Sampled	Sample Location	Condition
025	Plaster	C-1	D
026	Plaster	C-1	D
027	CP	D-1	D
028	⊥	D-2	D
029	⊥	D-3	D
030	12"x12" tan	D-1	D
031	~~Plaster~~ Dry wall / joint compound	D-1	D
032	⊥	D-1	D
033	⊥	D-1	D
034	CP	E-3	D
035	⊥	E-2	D
036	⊥	E-1	D
037	12"x12" tan	E-3	D
038	Plaster	E-3	D
039	⊥	E-3	D
040	⊥	E-3	D
041	black mastic	E Building End's R.R.	D
042	12"x12" tan	F-4	D
043	Plaster	F-4	D
044	⊥	F-3	D
045	⊥	F-2	D
046	CP	F-4	D
047	⊥	F-3	D
048	⊥	F-2	D

Analytical Method: PLM

Turn Around Time: Standard

Please fax results to (714)776-3500 and mail to

Pacific Environmental Company
1475 S. State College Blvd., Suite 212
Anaheim, California 92806

CHAIN OF CUSTODY:

Date/Time	Name	Signature
2/25/08	David Tillema	
3/6/08 @1000		

Date/Time Name Signature

AmeriSci Los Angeles
24416 SOUTH MAIN STREET • SUITE 308
CARSON, CA 90745
TEL: (310) 834-4868 • FAX: (310) 834-4772

March 10, 2008

Pacific Environmental Company
Attn: Mike Lyssy
28202 Cabot Road
Suite 300
Laguna Niguel, CA 92677

RE: Pacific Environmental Company
Job Number 908031127
P.O. #SBCUSD
SBCUSD; Bradley E.S.

Dear Mike Lyssy:

Enclosed are the results for polarized light microscopy analysis (PLM) of the following Pacific Environmental Company samples received at AmeriSci on Thursday, March 06, 2008, for a 5 day turnaround:

049, 050, 051, 052, 053, 054, 055, 056, 057, 058, 059, 060, 061, 062, 063, 064, 065, 066, 067, 068, 069, 070, 071, 072, 073, 074, 075, 076, 077, 078, 079, 080, 081, 082, 083, 084, 085, 086, 087, 088, 089, 090, 091, 092, 093, 094, 095, 096

The 48 samples contained in Ziplock Bags were shipped to AmeriSci via Federal Express. These samples were prepared and analyzed according to the EPA Interim Method (EPA 600/M4-82-020 per 40 CFR 763, subpt F, App. A). The samples were evaluated for homogeneity by low power stereomicroscopy. Asbestos fibers were identified by PLM and dispersion staining through the determination of the required optical properties including: morphology, color, pleochroism, refractive indices, birefringence, extinction and sign of elongation. The required analytical information, analysis results, analyst signature and laboratory identification is contained in the Analyst's Report.

This report relates ONLY to the sample analysis expressed as percent asbestos. The CV for this analysis is expected to range from 0.3 to 1.2, depending on the quantity of analyte present. AmeriSci assumes no responsibility for customer supplied data such as "sample type", "location", or "area sampled". This report must not be used to claim product endorsement by AmeriSci, NVLAP or any agency of the U. S. Government. The National Institute of Standards and Technology Accreditation AmeriSci appreciates this opportunity to serve your organization. Please contact us for any further assistance or with any questions.

Sincerely,

Mary S. David
Client Services Manager

AmeriSci Los Angeles
24416 S. Main Street, Ste 308
Carson, California 90745
TEL: (310) 834-4868 • FAX: (310) 834-4772

PLM Bulk Asbestos Report

Pacific Environmental Company
Attn: Mike Lyssy
28202 Cabot Road
Suite 300
Laguna Niguel, CA 92677

Date Received 03/06/08
Date Examined 03/07/08

RE: SBCUSD; Bradley E.S.

AmeriSci Job # 908031127
P.O. #

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
049	908031127-01	*No*	NAD (by CVES) by Olga K. Katsuk on 03/07/08
Location: 12"x12" CP / F Building Boy's R.R			
Analyst Description: White, Heterogeneous, Fibrous, Bulk Material			
Asbestos Types:			
Other Material: Cellulose 40 %, Fibrous glass 20 %, Non-fibrous 40 %			
050	908031127-02	*No*	NAD (by CVES) by Olga K. Katsuk on 03/07/08
Location: 12"x12" CP / F Building Boy's R.R			
Analyst Description: White, Heterogeneous, Fibrous, Bulk Material			
Asbestos Types:			
Other Material: Cellulose 40 %, Fibrous glass 25 %, Non-fibrous 35 %			
051	908031127-03	*No*	NAD (by CVES) by Olga K. Katsuk on 03/07/08
Location: 12"x12" CP / F Building Boy's R.R			
Analyst Description: White, Heterogeneous, Fibrous, Bulk Material			
Asbestos Types:			
Other Material: Cellulose 45 %, Fibrous glass 20 %, Non-fibrous 35 %			
052	908031127-04	*No*	NAD (by CVES) by Olga K. Katsuk on 03/07/08
Location: 2'x4' CP / Office			
Analyst Description: White, Heterogeneous, Fibrous, Bulk Material			
Asbestos Types:			
Other Material: Cellulose 40 %, Fibrous glass 20 %, Non-fibrous 40 %			
053	908031127-05	*No*	NAD (by CVES) by Olga K. Katsuk on 03/10/08
Location: 2'x4' CP / M.U			
Analyst Description: White, Heterogeneous, Fibrous, Bulk Material			
Asbestos Types:			
Other Material: Cellulose 45 %, Fibrous glass 15 %, Non-fibrous 40 %			

See Reporting notes on last page

PLM Bulk Asbestos Report

SBCUSD; Bradley E.S.

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
054	908031127-06	*No*	NAD
Location: 2'x4' CP / B Hexogon			(by CVES) by Olga K. Katsuk on 03/10/08
Analyst Description: White, Heterogeneous, Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Cellulose 45 %, Fibrous glass 20 %, Non-fibrous 35 %			
055	908031127-07L1	*No*	NAD
Location: 12"x12" White VFT / M.U			(by CVES) by Olga K. Katsuk on 03/10/08
Analyst Description: White, Homogeneous, Non-Fibrous, Flooring **Asbestos Types:** **Other Material:** Non-fibrous 100 %			
055	908031127-07L2	*No*	NAD
Location: 12"x12" White VFT / M.U			(by CVES) by Olga K. Katsuk on 03/10/08
Analyst Description: Black, Homogeneous, Non-Fibrous, Mastic **Asbestos Types:** **Other Material:** Non-fibrous 100 %			
056	908031127-08	*No*	NAD
Location: Plaster / M.U			(by CVES) by Olga K. Katsuk on 03/10/08
Analyst Description: Tan, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 100 %			
057	908031127-09	*No*	NAD
Location: Plaster / M.U			(by CVES) by Olga K. Katsuk on 03/10/08
Analyst Description: Tan, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 100 %			
058	908031127-10	*No*	NAD
Location: Plaster / Office			(by CVES) by Olga K. Katsuk on 03/10/08
nalyst Description: Tan, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 100 %			

See Reporting notes on last page

PLM Bulk Asbestos Report

SBCUSD; Bradley E.S.

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
059	908031127-11	*No*	NAD (by CVES) by Olga K. Katsuk on 03/10/08
Location: Roof Core / Walkway Exterior			
Analyst Description: Black, Heterogeneous, Fibrous, Bulk Material			
Asbestos Types:			
Other Material: Fibrous glass 10 %, Non-fibrous 90 %			
060	908031127-12	*No*	NAD (by CVES) by Olga K. Katsuk on 03/10/08
Location: Roof Core / P. (Sheets) Exterior			
Analyst Description: Grey/Black, Heterogeneous, Fibrous, Bulk Material			
Asbestos Types:			
Other Material: Fibrous glass 10 %, Non-fibrous 90 %			
061	908031127-13	*No*	NAD (by CVES) by Olga K. Katsuk on 03/10/08
Location: Roof Core / P. (Rock) Exterior			
Analyst Description: Black, Heterogeneous, Fibrous, Bulk Material			
Asbestos Types:			
Other Material: Fibrous glass 15 %, Non-fibrous 85 %			
062	908031127-14	*No*	NAD (by CVES) by Olga K. Katsuk on 03/10/08
Location: Penetration Mastic / P. Exterior			
Analyst Description: Silver/Black, Heterogeneous, Fibrous, Bulk Material			
Asbestos Types:			
Other Material: Cellulose 10 %, Non-fibrous 90 %			
063	908031127-15	*No*	NAD (by CVES) by Olga K. Katsuk on 03/10/08
Location: Roof Core / Bld. D Exterior			
Analyst Description: Black, Heterogeneous, Fibrous, Bulk Material			
Asbestos Types:			
Other Material: Fibrous glass 15 %, Non-fibrous 85 %			
064	908031127-16	*No*	NAD (by CVES) by Olga K. Katsuk on 03/10/08
Location: Penetration Mastic / Bld. D Exterior			
Analyst Description: Black, Homogeneous, Non-Fibrous, Bulk Material			
Asbestos Types:			
Other Material: Non-fibrous 100 %			

See Reporting notes on last page

PLM Bulk Asbestos Report

SBCUSD; Bradley E.S.

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
065	908031127-17	*No*	NAD (by CVES) by Olga K. Katsuk on 03/10/08
Location: Roof Core / Bld. E Exterior			
Analyst Description: Black, Heterogeneous, Fibrous, Bulk Material			
Asbestos Types:			
Other Material: Fibrous glass 15 %, Non-fibrous 85 %			
066	908031127-18	*Yes*	10 % (by CVES) by Olga K. Katsuk on 03/10/08
Location: Penetration Mastic / Bld. E Exterior			
Analyst Description: Grey/Black, Heterogeneous, Fibrous, Bulk Material			
Asbestos Types: Chrysotile 10.0 %			
Other Material: Non-fibrous 90 %			
067	908031127-19	*No*	NAD (by CVES) by Olga K. Katsuk on 03/10/08
Location: Roof Core / Bld. F Exterior			
Analyst Description: Black, Heterogeneous, Fibrous, Bulk Material			
Asbestos Types:			
Other Material: Fibrous glass 15 %, Non-fibrous 85 %			
068	908031127-20	*Yes*	6 % (by CVES) by Olga K. Katsuk on 03/10/08
Location: Penetration Mastic / Bld. F Exterior			
Analyst Description: Grey, Heterogeneous, Fibrous, Bulk Material			
Asbestos Types: Chrysotile 6.0 %			
Other Material: Non-fibrous 94 %			
069	908031127-21	*No*	NAD (by CVES) by Olga K. Katsuk on 03/10/08
Location: Roof Core / Bld. C Exterior			
Analyst Description: Black, Heterogeneous, Fibrous, Bulk Material			
Asbestos Types:			
Other Material: Fibrous glass 15 %, Non-fibrous 85 %			
070	908031127-22	*Yes*	5 % (by CVES) by Olga K. Katsuk on 03/10/08
Location: Penetration Mastic / Bld. C Exterior			
nalyst Description: Black/Grey, Heterogeneous, Fibrous, Bulk Material			
Asbestos Types: Chrysotile 5.0 %			
Other Material: Non-fibrous 95 %			

See Reporting notes on last page

PLM Bulk Asbestos Report

SBCUSD; Bradley E.S.

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
071	908031127-23	*No*	NAD (by CVES) by Olga K. Katsuk on 03/10/08
Location: Roof Core / Bld. B Exterior			
Analyst Description: Black, Heterogeneous, Fibrous, Bulk Material			
Asbestos Types:			
Other Material: Fibrous glass 10 %, Non-fibrous 90 %			
072	908031127-24	*Yes*	3 % (by CVES) by Olga K. Katsuk on 03/10/08
Location: Penetration Mastic / Bld. B Exterior			
Analyst Description: Black, Heterogeneous, Fibrous, Bulk Material			
Asbestos Types: Chrysotile 3.0 %			
Other Material: Non-fibrous 97 %			
073	908031127-25	*Yes*	3 % (by CVES) by Olga K. Katsuk on 03/10/08
Location: Roofing Mastic / A4 Exterior			
Analyst Description: Grey/Black, Heterogeneous, Fibrous, Bulk Material			
Asbestos Types: Chrysotile 3.0 %			
Other Material: Non-fibrous 97 %			
074	908031127-26	*Yes*	4 % (by CVES) by Olga K. Katsuk on 03/10/08
Location: Silver Roofing Paint / Bld. A Exterior			
Analyst Description: Silver, Heterogeneous, Fibrous, Bulk Material			
Asbestos Types: Chrysotile 4.0 %			
Other Material: Non-fibrous 96 %			
075	908031127-27	*Yes*	4 % (by CVES) by Olga K. Katsuk on 03/10/08
Location: Roof Core / Bld. A Exterior			
Analyst Description: Black, Heterogeneous, Fibrous, Bulk Material			
Asbestos Types: Chrysotile 4.0 %			
Other Material: Fibrous glass 15 %, Non-fibrous 81 %			
076	908031127-28	*No*	NAD (by CVES) by Olga K. Katsuk on 03/10/08
Location: Stucco / Bld. A			
Analyst Description: Beige/Grey, Heterogeneous, Non-Fibrous, Cementitious, Bulk Material			
Asbestos Types:			
Other Material: Non-fibrous 100 %			

See Reporting notes on last page

PLM Bulk Asbestos Report

SBCUSD; Bradley E.S.

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
077	908031127-29	*No*	NAD (by CVES) by Olga K. Katsuk on 03/10/08
Location: Stucco / Bld. A			
Analyst Description: Beige/Grey, Heterogeneous, Non-Fibrous, Cementitious, Bulk Material			
Asbestos Types:			
Other Material: Non-fibrous 100 %			
078	908031127-30	*No*	NAD (by CVES) by Olga K. Katsuk on 03/10/08
Location: Stucco / Bld. A			
Analyst Description: Beige/Grey, Heterogeneous, Non-Fibrous, Cementitious, Bulk Material			
Asbestos Types:			
Other Material: Non-fibrous 100 %			
079	908031127-31	*No*	NAD (by CVES) by Olga K. Katsuk on 03/10/08
Location: Stucco / Bld. B			
Analyst Description: Beige/Grey, Heterogeneous, Non-Fibrous, Cementitious, Bulk Material			
Asbestos Types:			
Other Material: Non-fibrous 100 %			
080	908031127-32	*No*	NAD (by CVES) by Olga K. Katsuk on 03/10/08
Location: Stucco / Bld. B			
Analyst Description: Beige/Grey, Heterogeneous, Non-Fibrous, Cementitious, Bulk Material			
Asbestos Types:			
Other Material: Non-fibrous 100 %			
081	908031127-33	*No*	NAD (by CVES) by Olga K. Katsuk on 03/10/08
Location: Stucco / Bld. B			
Analyst Description: Beige/Grey, Heterogeneous, Non-Fibrous, Cementitious, Bulk Material			
Asbestos Types:			
Other Material: Non-fibrous 100 %			
082	908031127-34	*No*	NAD (by CVES) by Olga K. Katsuk on 03/10/08
Location: Stucco / Bld. C			
nalyst Description: Beige/Grey, Heterogeneous, Non-Fibrous, Cementitious, Bulk Material			
Asbestos Types:			
Other Material: Non-fibrous 100 %			

See Reporting notes on last page

PLM Bulk Asbestos Report

SBCUSD; Bradley E.S.

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
083	908031127-35	*No*	NAD (by CVES) by Olga K. Katsuk on 03/10/08
Location: Stucco / Bld. C			
Analyst Description: Beige/Grey, Heterogeneous, Non-Fibrous, Cementitious, Bulk Material			
Asbestos Types:			
Other Material: Non-fibrous 100 %			
084	908031127-36	*No*	NAD (by CVES) by Olga K. Katsuk on 03/10/08
Location: Stucco / Bld. C			
Analyst Description: Beige/Grey, Heterogeneous, Non-Fibrous, Cementitious, Bulk Material			
Asbestos Types:			
Other Material: Non-fibrous 100 %			
085	908031127-37	*No*	NAD (by CVES) by Olga K. Katsuk on 03/10/08
Location: Stucco / Bld. D			
Analyst Description: Beige/Grey, Heterogeneous, Non-Fibrous, Cementitious, Bulk Material			
Asbestos Types:			
Other Material: Non-fibrous 100 %			
086	908031127-38	*No*	NAD (by CVES) by Olga K. Katsuk on 03/10/08
Location: Stucco / Bld. D			
Analyst Description: Beige/Grey, Heterogeneous, Non-Fibrous, Cementitious, Bulk Material			
Asbestos Types:			
Other Material: Non-fibrous 100 %			
087	908031127-39	*No*	NAD (by CVES) by Olga K. Katsuk on 03/10/08
Location: Stucco / Bld. D			
Analyst Description: Beige/Grey, Heterogeneous, Non-Fibrous, Cementitious, Bulk Material			
Asbestos Types:			
Other Material: Non-fibrous 100 %			
088	908031127-40	*No*	NAD (by CVES) by Olga K. Katsuk on 03/10/08
Location: Stucco / Bld. E			
nalyst Description: Beige/Grey, Heterogeneous, Non-Fibrous, Cementitious, Bulk Material			
Asbestos Types:			
Other Material: Non-fibrous 100 %			

See Reporting notes on last page

PLM Bulk Asbestos Report

SBCUSD; Bradley E.S.

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
089	908031127-41	*No*	NAD (by CVES) by Olga K. Katsuk on 03/10/08
Location: Stucco / Bld. E			
Analyst Description: Beige/Grey, Heterogeneous, Non-Fibrous, Cementitious, Bulk Material			
Asbestos Types:			
Other Material: Non-fibrous 100 %			
090	908031127-42	*No*	NAD (by CVES) by Olga K. Katsuk on 03/10/08
Location: Stucco / Bld. E			
Analyst Description: Beige/Grey, Heterogeneous, Non-Fibrous, Cementitious, Bulk Material			
Asbestos Types:			
Other Material: Non-fibrous 100 %			
091	908031127-43	*No*	NAD (by CVES) by Olga K. Katsuk on 03/10/08
Location: Stucco / Bld. F			
Analyst Description: Beige/Grey, Heterogeneous, Non-Fibrous, Cementitious, Bulk Material			
Asbestos Types:			
Other Material: Non-fibrous 100 %			
092	908031127-44	*No*	NAD (by CVES) by Olga K. Katsuk on 03/10/08
Location: Stucco / Bld. F			
Analyst Description: Beige/Grey, Heterogeneous, Non-Fibrous, Cementitious, Bulk Material			
Asbestos Types:			
Other Material: Non-fibrous 100 %			
093	908031127-45	*No*	NAD (by CVES) by Olga K. Katsuk on 03/10/08
Location: Stucco / Bld. F			
Analyst Description: Beige/Grey, Heterogeneous, Non-Fibrous, Cementitious, Bulk Material			
Asbestos Types:			
Other Material: Non-fibrous 100 %			
094	908031127-46	*No*	NAD (by CVES) by Olga K. Katsuk on 03/10/08
Location: Stucco / Pool Building			
nalyst Description: Beige, Heterogeneous, Non-Fibrous, Cementitious, Bulk Material			
Asbestos Types:			
Other Material: Non-fibrous 100 %			

See Reporting notes on last page

PLM Bulk Asbestos Report

SBCUSD; Bradley E.S.

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
095	908031127-47	*No*	NAD
Location: Stucco / Pool Building			(by CVES) by Olga K. Katsuk on 03/10/08
Analyst Description: Beige, Heterogeneous, Non-Fibrous, Cementitious, Bulk Material			
Asbestos Types:			
Other Material: Non-fibrous 100 %			
096	908031127-48	*No*	NAD
Location: Stucco / Pool Building			(by CVES) by Olga K. Katsuk on 03/10/08
Analyst Description: Beige, Heterogeneous, Non-Fibrous, Cementitious, Bulk Material			
Asbestos Types:			
Other Material: Non-fibrous 100 %			

Reporting Notes:
Analyzed By: Olga K. Katsuk _____; Date Analyzed: 3/7/2008 3.07.08
*NAD = no asbestos detected; Detection Limit <1%; Reporting Limits: CVES = 1%, 400 Pt Ct = 0.25%, 1000 Pt Ct = 0.1%; NA = not analyzed; NA/PS = not analyzed / positive stop; NVA = No Visible Asbestos; PLM (polarized light microscopy) Bulk Asbestos Analysis by EPA 600/M4-82-020 per 40 CFR 763 (NVLAP Lab #200346-0, CA ELAP lab #2322); Note: PLM is not consistently reliable in detecting asbestos in floor coverings and similar NOB ·terials. TEM is currently the only method that can be used to determine if this material can be considered or treated as non-asbestos-containing in / York State (also see EPA Advisory for floor tile, FR 59, 146, 38970, 8/1/94). NIST Accreditation requirements mandate that this report must not be reproduced except in full with the approval of the laboratory. This PLM report relates ONLY to the items tested.
Reviewed By: _____ 3/11/08

PACIFIC ENVIRONMENTAL

Date:	2/27/08
Client:	SBCUSD
Site:	Bradley E.S.
Project No:	
Inspector(s):	

ASBESTOS BULK SAMPLE FIELD LOG AND CHAIN OF CUSTODY

Sample Number	Material Sampled	Sample Location	Condition
049	12"x12" CP	F Building Boy's R.R.	D
050	⊥	⊥	D
051	⊥	⊥	D
052	2'x4' CP	Office.	D
053	⊥	~~M.U.~~ M.U.	D
054	⊥	B Hexagon.	D
055	12"x12" White ~~9"x9"~~ VFT	~~M.U.~~ M.U.	D
056	Plaster.	M.U.	D
057	⊥	M.U.	D
058	⊥	Office	D
059	Roof Core	Walkway Exterior	D
060	⊥	Pool (Sheets)	
061	⊥	(Rock	
062	Penetration Mastic	⊥	
063	Roof Core	Bld. D	
064	Penetration Mastic	⊥	
065	Roof Core	Bld. E.	
066	Penetration Mastic	⊥	
067	Roof Core	Bld. F	
068	Penetration Mastic	⊥	
069	Roof Core	Bld. C	
070	Penetration Mastic	⊥	
071	Roof Core	Bld. B	
072	Penetration Mastic	⊥	

Analytical Method: PLM

Turn Around Time: Standard

Please fax results to (714)776-3500 and mail to

Pacific Environmental Company
1475 S. State College Blvd., Suite 212
Anaheim, California 92806

CHAIN OF CUSTODY:

Name	Signature	Date/Time
David Tillac		2/27/08
S. Tahmildari		3/6/08 @ 1000

908031127

PACIFIC ENVIRONMENTAL

Date:	
Client:	SBCUSD
Site:	Bradley E.S.
Project No:	
Inspector(s):	2/27/08

ASBESTOS BULK SAMPLE FIELD LOG AND CHAIN OF CUSTODY

Sample Number	Material Sampled	Sample Location	Condition
073	Roofing Mastic	A4 Exterior	D
074	Silver Roofing Paint	Bld. A	D
075	Roof Core	⊥	⊥
076	Stucco	Bld. A	D
077		⊥	
078			
079		Bld. B	
080		⊥	
081			
082		Bld. C	
083		⊥	
084			
085		Bld. D	
086		⊥	
087			
088		Bld. E	
089		⊥	
090			
091		Bld. F	
092		⊥	
093			
094		Pod Buildings	
095		⊥	
096			

Analytical Method: PLM

Turn Around Time: Standard

Please fax results to (714)776-3500 and mail to

Pacific Environmental Company
1475 S. State College Blvd., Suite 212
Anaheim, California 92806

CHAIN OF CUSTODY:

Name	Signature	Date/Time
David Tillema		2/27/08
S. Tahmildari		3/6/08 @1000

Appendix D

XRF Sampling Results

FIELD DATA REPORT

PROJECT NAME: SBCUSD Bradley Elementary School

PROJECT NO.:08067

Building	Area	Component	Location	Substrate	Condition	Color	Pb(mg/cm2)	Results
Pod	Exterior	Wall	A	Brick	Intact	Red	0.3	Negative
Pod	Exterior	Wall	B	Brick	Intact	Red	0.2	Negative
Pod	Exterior	Wall	C	Brick	Intact	Red	0.3	Negative
Pod	Exterior	Wall	D	Brick	Intact	Red	0.3	Negative
Pod	Exterior	Door	C	Metal	Intact	Green	0.3	Negative
Pod	Exterior	Door Frame	C	Metal	Intact	Green	0.1	Negative
Pod	Exterior	Porch Columns	D	Metal	Defective	Beige	0.3	Negative
Pod	Exterior	Porch Ceiling	A	Stucco	Intact	Beige	0.2	Negative
Pod	Exterior	Downspout	C	Metal	Intact	Red	0.2	Negative
A	Exterior	Wall	A	Stucco	Intact	White	0.1	Negative
A	Exterior	Wall	B	Stucco	Intact	White	0.3	Negative
A	Exterior	Wall	C	Stucco	Intact	White	0.3	Negative
A	Exterior	Wall	D	Stucco	Intact	White	0.1	Negative
A	Exterior	Door	D	Metal	Intact	Green	0.0	Negative
A	Exterior	Door	B	Metal	Intact	Green	0.2	Negative
A	Exterior	Door Frame	D	Metal	Intact	Green	0.3	Negative
A	Exterior	Door Frame	B	Metal	Intact	Green	0.2	Negative
A	Exterior	Window Frame	D	Metal	Defective	Brown	0.0	Negative
A	**Exterior**	**Eaves**	**D**	**Wood**	**Defective**	**White**	**1.2**	**Positive**
A	**Exterior**	**Fascia**	**D**	**Wood**	**Defective**	**White**	**1.2**	**Positive**
A	**Exterior**	**Joists**	**D**	**Wood**	**Defective**	**White**	**1.3**	**Positive**
A	**Exterior**	**Porch Columns**	**B**	**Metal**	**Defective**	**Beige**	**1.2**	**Positive**
A	Exterior	Porch Ceiling	B	Metal	Intact	White	0.1	Negative
A	Exterior	Wall	A	Metal	Intact	White	0.3	Negative
A4	Exterior	Wall	B	Metal	Intact	White	0.1	Negative
A4	Exterior	Wall	C	Metal	Intact	White	0.1	Negative
A4	Exterior	Wall	D	Metal	Intact	White	0.1	Negative
A4	Exterior	Door	B	Metal	Intact	Green	0.1	Negative
A4	Exterior	Door Frame	B	Metal	Intact	Green	0.1	Negative
A4	Exterior	Eaves	B	Metal	Intact	White	0.4	Negative
A4	Exterior	Fascia	C	Metal	Intact	Beige	0.5	Negative
A4	Exterior	Joists	B	Metal	Intact	White	0.5	Negative
B	Exterior	Wall	A	Stucco	Intact	White	0.4	Negative
B	Exterior	Wall	B	Stucco	Intact	White	0.2	Negative
B	Exterior	Wall	C	Stucco	Intact	White	0.3	Negative
B	Exterior	Wall	D	Stucco	Intact	White	0.4	Negative
B	Exterior	Door	B	Metal	Intact	Green	0.3	Negative
B	Exterior	Door Frame	B	Metal	Intact	Green	0.3	Negative
B	Exterior	Window Frame	A	Metal	Intact	Brown	0.0	Negative
B	**Exterior**	**Eaves**	**B**	**Wood**	**Intact**	**White**	**1.9**	**Positive**
B	**Exterior**	**Fascia**	**B**	**Wood**	**Intact**	**White**	**1.7**	**Positive**
B	**Exterior**	**Joists**	**B**	**Wood**	**Intact**	**White**	**1.3**	**Positive**
B	**Exterior**	**Porch Columns**	**B**	**Wood**	**Intact**	**Beige**	**3.4**	**Positive**
B	Exterior	Porch Ceiling	B	Wood	Intact	White	0.4	Negative
B	**Exterior**	**Walkway Joists**	**C**	**Wood**	**Intact**	**White**	**2.3**	**Positive**
B	**Exterior**	**Walkway Ceiling**	**C**	**Wood**	**Intact**	**White**	**2.2**	**Positive**
C	Exterior	Wall	A	Stucco	Intact	White	0.2	Negative
C	Exterior	Wall	B	Stucco	Intact	White	0.2	Negative
C	Exterior	Wall	C	Stucco	Intact	White	0.3	Negative
C	Exterior	Wall	D	Stucco	Intact	White	0.3	Negative
C	Exterior	Door	B	Metal	Intact	Green	0.2	Negative
C	Exterior	Door Frame	B	Metal	Intact	Green	0.2	Negative
C	Exterior	Window Frame	A	Metal	Intact	Brown	0.0	Negative
C	**Exterior**	**Eaves**	**B**	**Wood**	**Intact**	**White**	**1.5**	**Positive**
C	**Exterior**	**Fascia**	**B**	**Wood**	**Intact**	**White**	**1.2**	**Positive**
C	**Exterior**	**Joists**	**B**	**Wood**	**Intact**	**White**	**1.3**	**Positive**
C	**Exterior**	**Porch Columns**	**B**	**Wood**	**Intact**	**Beige**	**3.6**	**Positive**

The HUD/EPA action level for lead-based paint is 1.0 mg/cm2.
Negative readings are below LOD for XRF

FIELD DATA REPORT

PROJECT NAME: SBCUSD Bradley Elementary School

PROJECT NO.:08067

Building	Area	Component	Location	Substrate	Condition	Color	Pb(mg/cm2)	Results
C	Exterior	Porch Ceiling	B	Wood	Intact	White	0.4	Negative
C	**Exterior**	**Walkway Joists**	**C**	**Wood**	**Intact**	**White**	**2.1**	**Positive**
C	**Exterior**	**Walkway Ceiling**	**C**	**Wood**	**Intact**	**White**	**2.0**	**Positive**
D	Exterior	Wall	A	Stucco	Intact	White	0.4	Negative
D	Exterior	Wall	B	Stucco	Intact	White	0.2	Negative
D	Exterior	Wall	C	Stucco	Intact	White	0.3	Negative
D	Exterior	Wall	D	Stucco	Intact	White	0.4	Negative
D	Exterior	Door	B	Metal	Intact	Green	0.3	Negative
D	Exterior	Door Frame	B	Metal	Intact	Green	0.3	Negative
D	Exterior	Window Frame	A	Metal	Intact	Brown	0.0	Negative
D	**Exterior**	**Eaves**	**B**	**Wood**	**Intact**	**White**	**1.2**	**Positive**
D	**Exterior**	**Fascia**	**B**	**Wood**	**Intact**	**White**	**1.4**	**Positive**
D	**Exterior**	**Joists**	**B**	**Wood**	**Intact**	**White**	**1.3**	**Positive**
D	**Exterior**	**Porch Columns**	**B**	**Wood**	**Intact**	**Beige**	**1.6**	**Positive**
D	Exterior	Porch Ceiling	B	Wood	Intact	White	0.4	Negative
D	**Exterior**	**Walkway Joists**	**C**	**Wood**	**Intact**	**White**	**1.5**	**Positive**
D	**Exterior**	**Walkway Ceiling**	**C**	**Wood**	**Intact**	**White**	**2.5**	**Positive**
E	Exterior	Wall	A	Stucco	Intact	White	0.2	Negative
E	Exterior	Wall	B	Stucco	Intact	White	0.1	Negative
E	Exterior	Wall	C	Stucco	Intact	White	0.0	Negative
E	Exterior	Wall	D	Stucco	Intact	White	0.4	Negative
E	Exterior	Door	B	Metal	Intact	Green	0.2	Negative
E	Exterior	Door Frame	B	Metal	Intact	Green	0.2	Negative
E	Exterior	Window Frame	A	Metal	Intact	Brown	0.1	Negative
E	**Exterior**	**Eaves**	**B**	**Wood**	**Intact**	**White**	**1.2**	**Positive**
E	**Exterior**	**Fascia**	**B**	**Wood**	**Intact**	**White**	**1.5**	**Positive**
E	**Exterior**	**Joists**	**B**	**Wood**	**Intact**	**White**	**1.5**	**Positive**
E	**Exterior**	**Porch Columns**	**B**	**Wood**	**Intact**	**Beige**	**1.6**	**Positive**
E	Exterior	Porch Ceiling	B	Wood	Intact	White	0.2	Negative
E	**Exterior**	**Walkway Joists**	**C**	**Wood**	**Intact**	**White**	**2.8**	**Positive**
E	**Exterior**	**Walkway Ceiling**	**C**	**Wood**	**Intact**	**White**	**1.9**	**Positive**
F	Exterior	Wall	A	Stucco	Intact	White	0.1	Negative
F	Exterior	Wall	B	Stucco	Intact	White	0.0	Negative
F	Exterior	Wall	C	Stucco	Intact	White	0.5	Negative
F	Exterior	Wall	D	Stucco	Intact	White	0.4	Negative
F	Exterior	Door	B	Metal	Intact	Green	0.1	Negative
F	Exterior	Door Frame	B	Metal	Intact	Green	0.5	Negative
F	Exterior	Window Frame	A	Metal	Intact	Brown	0.1	Negative
F	**Exterior**	**Eaves**	**B**	**Wood**	**Intact**	**White**	**1.6**	**Positive**
F	**Exterior**	**Fascia**	**B**	**Wood**	**Intact**	**White**	**1.6**	**Positive**
F	**Exterior**	**Joists**	**B**	**Wood**	**Intact**	**White**	**1.8**	**Positive**
F	**Exterior**	**Porch Columns**	**B**	**Wood**	**Intact**	**Beige**	**2.1**	**Positive**
F	Exterior	Porch Ceiling	B	Wood	Intact	White	0.2	Negative
F	**Exterior**	**Walkway Joists**	**C**	**Wood**	**Intact**	**White**	**1.2**	**Positive**
F	**Exterior**	**Walkway Ceiling**	**C**	**Wood**	**Intact**	**White**	**1.2**	**Positive**
G (Restrooms)/Playground	Exterior	Wall	A	Metal	Intact	White	0.1	Negative
G (Restrooms)/Playground	Exterior	Wall	B	Metal	Intact	White	0.3	Negative
G (Restrooms)/Playground	Exterior	Wall	C	Metal	Intact	White	0.1	Negative
G (Restrooms)/Playground	Exterior	Wall	D	Metal	Intact	White	0.1	Negative
G (Restrooms)/Playground	Exterior	Door	D	Metal	Intact	Green	0.1	Negative
G (Restrooms)/Playground	Exterior	Door Frame	D	Metal	Defective	Green	0.3	Negative
G (Restrooms)/Playground	Exterior	Eaves	D	Metal	Defective	White	0.4	Negative
G (Restrooms)/Playground	Exterior	Fascia	D	Metal	Defective	White	0.4	Negative
G (Restrooms)/Playground	**Exterior**	**Basketball Pole**	**N/A**	**Metal**	**Defective**	**Red**	**6.4**	**Positive**
A1-A3	A1	Wall	A	Drywall	Intact	Blue	0.0	Negative
A1-A3	A1	Wall	B	Drywall	Intact	Blue	0.0	Negative
A1-A3	A1	Wall	C	Drywall	Intact	Blue	0.1	Negative

The HUD/EPA action level for lead-based paint is 1.0 mg/cm2.
Negative readings are below LOD for XRF

FIELD DATA REPORT

PROJECT NAME: SBCUSD Bradley Elementary School

PROJECT NO.:08067

Building	Area	Component	Location	Substrate	Condition	Color	Pb(mg/cm2)	Results
A1-A3	A1	Wall	D	Drywall	Intact	Blue	0.0	Negative
A1-A3	A1	Door	B	Metal	Intact	Green	0.1	Negative
A1-A3	A1	Door Frame	B	Metal	Intact	Blue	0.0	Negative
A1-A3	A1	Sink	C	Porcelin	Intact	White	0.1	Negative
A1-A3	A1	Window Frame	D	Metal	Intact	Black	0.0	Negative
A1-A3	A2	Wall	A	Drywall	Intact	Blue	0.0	Negative
A1-A3	A2	Wall	B	Drywall	Intact	Blue	0.2	Negative
A1-A3	A2	Wall	C	Drywall	Intact	Blue	0.1	Negative
A1-A3	A2	Wall	D	Drywall	Intact	Blue	0.3	Negative
A1-A3	A2	Door	B	Metal	Intact	Green	0.1	Negative
A1-A3	A2	Door Frame	B	Metal	Intact	Blue	0.0	Negative
A1-A3	A2	Sink	C	Porcelin	Intact	White	0.1	Negative
A1-A3	A2	Window Frame	D	Metal	Intact	Black	0.0	Negative
A1-A3	A3	Wall	A	Drywall	Intact	Blue	0.1	Negative
A1-A3	A3	Wall	B	Drywall	Intact	Blue	0.2	Negative
A1-A3	A3	Wall	C	Drywall	Intact	Blue	0.1	Negative
A1-A3	A3	Wall	D	Drywall	Intact	Blue	0.0	Negative
A1-A3	A3	Door	B	Metal	Intact	Green	0.1	Negative
A1-A3	A3	Door Frame	B	Metal	Intact	Blue	0.1	Negative
A1-A3	A3	Sink	C	Porcelin	Intact	White	0.2	Negative
A1-A3	A3	Window Frame	D	Metal	Intact	Black	0.2	Negative
A1-A3	Boy's Restroom	Wall	A	Drywall	Intact	Blue	0.0	Negative
A1-A3	Boy's Restroom	Wall	B	Drywall	Intact	Blue	0.1	Negative
A1-A3	Boy's Restroom	Wall	C	Drywall	Intact	Blue	0.0	Negative
A1-A3	Boy's Restroom	Wall	D	Drywall	Intact	Blue	0.2	Negative
A1-A3	Boy's Restroom	Door	C	Wood	Intact	Blue	0.0	Negative
A1-A3	**Boy's Restroom**	**Sink**	**A**	**Porcelin**	**Intact**	**White**	**5.5**	**Positive**
A1-A3	Boy's Restroom	Door Frame	C	Metal	Intact	Blue	0.1	Negative
A1-A3	Boy's Restroom	Partition Door	D	Metal	Intact	Blue	0.0	Negative
A1-A3	Girl's Restroom	Wall	A	Drywall	Intact	Blue	0.1	Negative
A1-A3	Girl's Restroom	Wall	B	Drywall	Intact	Blue	0.1	Negative
A1-A3	Girl's Restroom	Wall	C	Drywall	Intact	Blue	0.3	Negative
A1-A3	Girl's Restroom	Wall	D	Drywall	Intact	Blue	0.1	Negative
A1-A3	Girl's Restroom	Door	C	Wood	Intact	Blue	0.1	Negative
A1-A3	**Girl's Restroom**	**Sink**	**A**	**Porcelin**	**Intact**	**White**	**5.2**	**Positive**
A1-A3	Girl's Restroom	Door Frame	C	Metal	Intact	Blue	0.1	Negative
A1-A3	Girl's Restroom	Partition Door	D	Metal	Intact	Blue	0.0	Negative
A4	A4	Wall	A	Metal	Intact	Beige	0.1	Negative
A4	A4	Wall	B	Metal	Intact	Beige	0.0	Negative
A4	A4	Wall	C	Metal	Intact	Beige	0.1	Negative
A4	A4	Wall	D	Metal	Intact	Beige	0.2	Negative
A4	A4	Door	B	Metal	Intact	Green	0.1	Negative
A4	A4	Ceiling Beam	N/A	Metal	Intact	Red	0.0	Negative
A4	A4	Door Frame	B	Metal	Intact	Blue	0.0	Negative
B	B1	Wall	A	Plaster	Intact	Blue	0.5	Negative
B	B1	Wall	C	Plaster	Intact	Blue	0.5	Negative
B	B1	Wall	D	Plaster	Intact	Blue	0.5	Negative
B	B1	Door	D	Metal	Intact	Green	0.0	Negative
B	B1	Door Frame	D	Metal	Intact	Blue	0.0	Negative
B	**B1**	**Sink**	**C**	**Porcelin**	**Intact**	**White**	**18.7**	**Positive**
B	B1 Boy's Restroom	Wall	A	Plaster	Intact	Blue	0.1	Negative
B	B1 Boy's Restroom	Wall	B	Plaster	Intact	Blue	0.0	Negative
B	B1 Boy's Restroom	Wall	C	Plaster	Intact	Blue	0.0	Negative
B	B1 Boy's Restroom	Wall	D	Plaster	Intact	Blue	0.0	Negative
B	B1 Boy's Restroom	Door	C	Wood	Intact	Blue	0.0	Negative
B	B1 Boy's Restroom	Door Frame	C	Wood	Intact	Blue	0.1	Negative
B	B1 Boy's Restroom	Plumbing Fixtures	B	Porcelin	Intact	Blue	0.1	Negative

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FIELD DATA REPORT

PROJECT NAME: SBCUSD Bradley Elementary School

PROJECT NO.:08067

Building	Area	Component	Location	Substrate	Condition	Color	Pb(mg/cm2)	Results
B	B1 Boy's Restroom	Ceiling	N/A	Plaster	Intact	Blue	0.0	Negative
B	B1 Girl's Restroom	Wall	A	Plaster	Intact	Blue	0.2	Negative
B	B1 Girl's Restroom	Wall	B	Plaster	Intact	Blue	0.1	Negative
B	B1 Girl's Restroom	Wall	C	Plaster	Intact	Blue	0.3	Negative
B	B1 Girl's Restroom	Wall	D	Plaster	Intact	Blue	0.1	Negative
B	B1 Girl's Restroom	Door	C	Wood	Intact	Blue	0.2	Negative
B	B1 Girl's Restroom	Door Frame	C	Wood	Intact	Blue	0.1	Negative
B	B1 Girl's Restroom	Plumbing Fixtures	B	Porcelin	Intact	Blue	0.1	Negative
B	B1 Girl's Restroom	Ceiling	N/A	Plaster	Intact	Blue	0.1	Negative
B	**B2 Boy's Restroom**	**Wall**	**A**	**Ceramic**	**Intact**	**White**	**11.6**	**Positive**
B	**B2 Boy's Restroom**	**Wall**	**B**	**Ceramic**	**Intact**	**White**	**11.1**	**Positive**
B	**B2 Boy's Restroom**	**Wall**	**C**	**Ceramic**	**Intact**	**White**	**11.5**	**Positive**
B	**B2 Boy's Restroom**	**Wall**	**D**	**Ceramic**	**Intact**	**White**	**10.9**	**Positive**
B	B2 Boy's Restroom	Door	A	Wood	Intact	Blue	0.0	Negative
B	B2 Boy's Restroom	Toilet	C	Porcelin	Intact	Blue	0.0	Negative
B	B2 Boy's Restroom	Door Frame	A	Wood	Intact	Blue	0.0	Negative
B	**B2 Boy's Restroom**	**Sink**	**A**	**Porcelin**	**Intact**	**Blue**	**24.9**	**Positive**
B	B2 Boy's Restroom	Ceiling	N/A	Plaster	Intact	Blue	0.1	Negative
B	B2 Boy's Restroom	Floor Tile	N/A	Ceramic	Intact	Green	0.0	Negative
B	**B2 Girl's Restroom**	**Wall**	**A**	**Ceramic**	**Intact**	**White**	**12.2**	**Positive**
B	**B2 Girl's Restroom**	**Wall**	**B**	**Ceramic**	**Intact**	**White**	**14.1**	**Positive**
B	**B2 Girl's Restroom**	**Wall**	**C**	**Ceramic**	**Intact**	**White**	**9.8**	**Positive**
B	**B2 Girl's Restroom**	**Wall**	**D**	**Ceramic**	**Intact**	**White**	**11.2**	**Positive**
B	B2 Girl's Restroom	Door	A	Wood	Intact	Blue	0.1	Negative
B	B2 Girl's Restroom	Toilet	C	Porcelin	Intact	Blue	0.4	Negative
B	B2 Girl's Restroom	Door Frame	A	Wood	Intact	Blue	0.1	Negative
B	**B2 Girl's Restroom**	**Sink**	**A**	**Porcelin**	**Intact**	**Blue**	**22.8**	**Positive**
B	B2 Girl's Restroom	Ceiling	N/A	Plaster	Intact	Blue	0.1	Negative
B	B2 Girl's Restroom	Floor Tile	N/A	Ceramic	Intact	Green	0.0	Negative
B	B3	Door	B	Metal	Intact	Green	0.0	Negative
B	B3	Door Frame	B	Metal	Intact	Blue	0.0	Negative
B	B3	Sink	C	Porcelin	Intact	White	0.1	Negative
B	Boy's Restroom	Wall	A	Ceramic	Intact	Green/Grey	0.1	Negative
B	Boy's Restroom	Wall	B	Ceramic	Intact	Green/Grey	0.0	Negative
B	Boy's Restroom	Wall	C	Ceramic	Intact	Green/Grey	0.1	Negative
B	Boy's Restroom	Wall	D	Ceramic	Intact	Green/Grey	0.0	Negative
B	Boy's Restroom	Door	B	Metal	Intact	Blue	0.1	Negative
B	Boy's Restroom	Plumbing Fixtures	N/A	Porcelin	Intact	White	0.0	Negative
B	Boy's Restroom	Door Frame	B	Metal	Intact	Blue	0.0	Negative
B	Girl's Restroom	Wall	A	Ceramic	Intact	Green/Grey	0.2	Negative
B	Girl's Restroom	Wall	B	Ceramic	Intact	Green/Grey	0.1	Negative
B	Girl's Restroom	Wall	C	Ceramic	Intact	Green/Grey	0.0	Negative
B	Girl's Restroom	Wall	D	Ceramic	Intact	Green/Grey	0.2	Negative
B	Girl's Restroom	Door	B	Metal	Intact	Blue	0.2	Negative
B	Girl's Restroom	Plumbing Fixtures	N/A	Porcelin	Intact	White	0.1	Negative
B	Girl's Restroom	Door Frame	B	Metal	Intact	Blue	0.1	Negative
C	C1	Door	B	Metal	Intact	Green	0.0	Negative
C	C1	Door Frame	B	Metal	Intact	Blue	0.0	Negative
C	C1 Restroom	Door	A	Wood	Intact	Blue	0.0	Negative
C	C1 Restroom	Door Frame	A	Wood	Intact	Blue	0.1	Negative
C	C1 Restroom	Plumbing Fixtures	C	Porcelin	Intact	White	0.0	Negative
C	C1 Storage	Door	D	Metal	Intact	Grey	0.0	Negative
C	C1 Storage	Door Frame	D	Metal	Intact	Grey	0.0	Negative
C	C2	Door	B	Metal	Intact	Green	0.1	Negative
C	C2	Door Frame	B	Metal	Intact	Blue	0.1	Negative
C	C3	Door	B	Metal	Intact	Green	0.0	Negative
C	C3	Sink	B	Porcelin	Intact	White	0.1	Negative

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FIELD DATA REPORT

PROJECT NAME: SBCUSD Bradley Elementary School

PROJECT NO.:08067

Building	Area	Component	Location	Substrate	Condition	Color	Pb(mg/cm2)	Results
C	C3	Door Frame	B	Metal	Intact	Blue	0.0	Negative
C	C4	Door	D	Metal	Intact	Green	0.1	Negative
C	C4	Door Frame	D	Wood	Intact	Blue	0.1	Negative
D	D1	Wall	D	Drywall	Intact	Blue	0.0	Negative
D	D1	Door	D	Metal	Intact	Green	0.0	Negative
D	D1	Door Frame	D	Metal	Intact	Blue	0.1	Negative
D	D1	Sink	C	Porcelin	Intact	White	0.0	Negative
D	D2	Wall	D	Drywall	Intact	Blue	0.1	Negative
D	D2	Door	D	Metal	Intact	Green	0.0	Negative
D	D2	Door Frame	D	Metal	Intact	Blue	0.0	Negative
D	D2	Sink	C	Porcelin	Intact	White	0.0	Negative
D	D3	Wall	D	Drywall	Intact	Blue	0.3	Negative
D	D3	Door	D	Metal	Intact	Green	0.3	Negative
D	D3	Door Frame	D	Metal	Intact	Blue	0.1	Negative
D	D3	Sink	C	Porcelin	Intact	White	0.1	Negative
D	D4	Wall	D	Drywall	Intact	Blue	0.2	Negative
D	D4	Door	D	Metal	Intact	Green	0.0	Negative
D	D4	Door Frame	D	Metal	Intact	Blue	0.0	Negative
D	D4	Sink	C	Porcelin	Intact	White	0.3	Negative
E	E1	Wall	D	Drywall	Intact	Blue	0.2	Negative
E	E1	Door	D	Metal	Intact	Green	0.0	Negative
E	E1	Door Frame	D	Metal	Intact	Blue	0.1	Negative
E	E1	Sink	C	Porcelin	Intact	White	0.2	Negative
E	E2	Wall	D	Drywall	Intact	Blue	0.0	Negative
E	E2	Door	D	Metal	Intact	Green	0.0	Negative
E	E2	Door Frame	D	Metal	Intact	Blue	0.0	Negative
E	E2	Sink	C	Porcelin	Intact	White	0.1	Negative
E	E3	Wall	D	Drywall	Intact	Blue	0.1	Negative
E	E3	Door	D	Metal	Intact	Green	0.2	Negative
E	E3	Door Frame	D	Metal	Intact	Blue	0.2	Negative
E	E3	Sink	C	Porcelin	Intact	White	0.1	Negative
E	Boy's Restroom	Wall	A	Plaster	Defective	Yellow	0.4	Negative
E	Boy's Restroom	Wall	B	Plaster	Defective	Yellow	0.4	Negative
E	Boy's Restroom	Wall	C	Plaster	Defective	Yellow	0.5	Negative
E	Boy's Restroom	Wall	D	Plaster	Defective	Yellow	0.4	Negative
E	Boy's Restroom	Baseboard	B	Ceramic	Defective	Yellow	0.2	Negative
E	Boy's Restroom	Door	B	Metal	Defective	Green	0.1	Negative
E	Boy's Restroom	Wall Tile	B	Ceramic	Defective	Yellow	0.1	Negative
E	Boy's Restroom	Door Frame	B	Metal	Defective	Red	0.3	Negative
E	**Boy's Restroom**	**Sink**	**A**	**Porcelin**	**Defective**	**White**	**27.8**	**Positive**
E	Boy's Restroom	Floor Tile	N/A	Ceramic	Defective	Tan	0.0	Negative
E	Girl's Restroom	Wall	A	Plaster	Defective	Green	0.1	Negative
E	Girl's Restroom	Wall	B	Plaster	Defective	Green	0.0	Negative
E	Girl's Restroom	Wall	C	Plaster	Defective	Green	0.0	Negative
E	Girl's Restroom	Wall	D	Plaster	Defective	Green	0.0	Negative
E	Girl's Restroom	Door	B	Metal	Defective	Blue	0.0	Negative
E	**Girl's Restroom**	**Door Frame**	**B**	**Wood**	**Defective**	**Red**	**1.4**	**Positive**
E	**Girl's Restroom**	**Window Frame**	**D**	**Wood**	**Defective**	**Blue**	**2.1**	**Positive**
F	F1	Wall	A	Plaster	Intact	Green	0.1	Negative
F	F1	Wall	B	Plaster	Intact	Green	0.1	Negative
F	F1	Wall	D	Plaster	Intact	Green	0.2	Negative
F	F1	Door	B	Metal	Intact	Green	0.3	Negative
F	F1	Sink	C	Porcelin	Intact	Green	0.1	Negative
F	F1	Door Frame	B	Metal	Intact	Blue	0.1	Negative
F	F2	Wall	A	Plaster	Intact	Green	0.2	Negative
F	F2	Wall	B	Plaster	Intact	Green	0.2	Negative
F	F2	Wall	D	Plaster	Intact	Green	0.1	Negative

The HUD/EPA action level for lead-based paint is 1.0 mg/cm2.
Negative readings are below LOD for XRF

FIELD DATA REPORT

PROJECT NAME: SBCUSD Bradley Elementary School

PROJECT NO.:08067

Building	Area	Component	Location	Substrate	Condition	Color	Pb(mg/cm2)	Results
F	F2	Door	B	Metal	Intact	Green	0.1	Negative
F	F2	Sink	C	Porcelin	Intact	Green	0.1	Negative
F	F2	Door Frame	B	Metal	Intact	Blue	0.1	Negative
F	F3	Wall	A	Plaster	Intact	Green	0.0	Negative
F	F3	Wall	B	Plaster	Intact	Green	0.1	Negative
F	F3	Wall	D	Plaster	Intact	Green	0.3	Negative
F	F3	Door	B	Metal	Intact	Green	0.1	Negative
F	F3	Sink	C	Porcelin	Intact	Green	0.2	Negative
F	F3	Door Frame	B	Metal	Intact	Blue	0.2	Negative
F	F4	Wall	A	Plaster	Intact	Green	0.0	Negative
F	F4	Wall	B	Plaster	Intact	Green	0.0	Negative
F	F4	Wall	D	Plaster	Intact	Green	0.1	Negative
F	F4	Door	B	Metal	Intact	Green	0.2	Negative
F	F4	Sink	C	Porcelin	Intact	Green	0.2	Negative
F	F4	Door Frame	B	Metal	Intact	Blue	0.2	Negative
F	Boy's Restroom	Door	B	Metal	Intact	Green	0.0	Negative
F	**Boy's Restroom**	**Wall Tile**	**A**	**Ceramic**	**Intact**	**Green**	**12.1**	**Positive**
F	Boy's Restroom	Door Frame	B	Wood	Intact	Blue	0.1	Negative
F	Boy's Restroom	Plumbing Fixtures	N/A	Porcelin	Intact	White	0.1	Negative
F	Boy's Restroom	Floor Tile	N/A	Ceramic	Intact	Tan	0.0	Negative
F	Girl's Restroom	Door	B	Metal	Intact	Green	0.0	Negative
F	**Girls's Restroom**	**Wall Tile**	**A**	**Ceramic**	**Intact**	**Green**	**11.1**	**Positive**
F	Girl's Restroom	Door Frame	B	Wood	Intact	Blue	0.3	Negative
F	Girl's Restroom	Plumbing Fixtures	N/A	Porcelin	Intact	White	0.0	Negative
F	Girl's Restroom	Floor Tile	N/A	Ceramic	Intact	Tan	0.2	Negative
G	Boy's Restroom	Door	B	Metal	Intact	Blue	0.1	Negative
G	Boy's Restroom	Wall Tile	B	Ceramic	Intact	Beige	0.0	Negative
G	Boy's Restroom	Door Frame	B	Metal	Intact	Blue	0.0	Negative
G	Boy's Restroom	Floor Tile	N/A	Ceramic	Defective	Tan	0.0	Negative
Pod	MU	Wall	A	Plaster	Intact	Yellow	0.0	Negative
Pod	MU	Wall	B	Plaster	Intact	Yellow	0.0	Negative
Pod	MU	Wall	C	Plaster	Intact	Yellow	0.1	Negative
Pod	MU	Wall	D	Plaster	Intact	Yellow	0.2	Negative
Pod	MU	Door	C	Metal	Intact	Blue	0.5	Negative
Pod	**MU**	**Door Frame**	**C**	**Metal**	**Intact**	**Blue**	**1.2**	**Positive**
Pod	MU	Floor Tile	N/A	Ceramic	Intact	Tan	0.0	Negative
Pod	Classroom A	Wall	B	Brick	Intact	White	0.0	Negative
Pod	**Classroom E**	**Sink**	**C**	**Porcelin**	**Intact**	**White**	**48.6**	**Positive**
Pod	Office Men's Restroom	Door	C	Metal	Intact	Blue	0.0	Negative
Pod	**Office Men's Restroom**	**Wall Tile**	**D**	**Ceramic**	**Intact**	**Beige**	**13.1**	**Positive**
Pod	Office Men's Restroom	Door Frame	C	Metal	Intact	Blue	0.0	Negative
Pod	**Office Men's Restroom**	**Sink**	**B**	**Porcelin**	**Intact**	**White**	**25.4**	**Positive**
Pod	Office Men's Restroom	Floor Tile	N/A	Ceramic	Intact	Green	0.0	Negative
Pod	Office Men's Restroom	Toilet	D	Porcelin	Intact	White	0.1	Negative
Pod	Office Women's Restroom	Door	C	Metal	Intact	Blue	0.0	Negative
Pod	**Office Women's Restroom**	**Wall Tile**	**D**	**Ceramic**	**Intact**	**Beige**	**11.5**	**Positive**
Pod	Office Women's Restroom	Door Frame	C	Metal	Intact	Blue	0.0	Negative
Pod	**Office Women's Restroom**	**Sink**	**B**	**Porcelin**	**Intact**	**White**	**22.1**	**Positive**
Pod	Office Women's Restroom	Floor Tile	N/A	Ceramic	Intact	Green	0.1	Negative
Pod	Office Women's Restroom	Toilet	D	Porcelin	Intact	White	0.1	Negative

The HUD/EPA action level for lead-based paint is 1.0 mg/cm2.
Negative readings are below LOD for XRF

Appendix E

DHS Form 8552

LEAD HAZARD EVALUATION REPORT

Section 1—Date of Lead Hazard Evaluation 02/27/08

Section 2—Type of Lead Hazard Evaluation (Check one box only)

☑ Lead inspection ☐ Risk assessment ☐ Clearance inspection ☐ Other (specify) _____

Section 3—Structure Where Lead Hazard Evaluation Was Conducted

Address (number, street, apartment (if applicable))	City	County	ZIP code
Hunt ES 1300 Valencia Avenue	San Bernardino	San Bernardino	92407

Construction date (year) of structure	Type of structure (check one box only)
01/01/60	☐ Single family dwelling ☐ Multi-unit building ☐ Child-occupied facility ☑ Other (specify) School

Section 4—Owner of Structure (If business/agency, list contact person)

Name	Telephone number
San Bernardino City Unified School District	(909) 381-1238

Address (number, street, apartment (if applicable))	City	State	ZIP code
777 North F Street	San Bernardino	California	92401

Section 5—Results of Lead Hazard Evaluation (Check one box only)

☐ **No lead-based paint detected.**
A lead inspection was conducted following the procedures outlined in Title 17, California Code of Regulations, Division 1, Chapter 8. No lead-based paint was detected during this lead inspection. This structure is found to be lead-based paint free.

☐ **No lead hazards detected.**
Lead hazard evaluation was conducted following the procedures outlined in Title 17, California Code of Regulations, Division 1, Chapter 8. No lead hazards were detected.

☑ **Lead-based paint and/or lead hazards detected.**
Lead hazard evaluation was conducted following the procedures outlined in Title 17, California Code of Regulations, Division 1, Chapter 8. Lead-based paint and/or lead hazards were detected.

Section 6—Individual Conducting Lead Hazard Evaluation

Name	Telephone number
David Tillema/Pacific Environmental	(800) 303-6484

Address (number, street, apartment (if applicable))	City	State	ZIP code
28202 Cabot Road, Suite 300	Laguna Niguel	California	92677

Brand name and serial number of any portable x-ray fluorescence (XRF) instrument used (if applicable)

EDAX Map 4 Serial Number M41590

DHS certification number	Signature	Date
17740		03/18/08

Section 7—Attachments

A. A foundation diagram or sketch of the structure indicating the specific locations of each lead hazard or presence of lead-based paint;

B. Each testing method, device, and sampling procedure used;

C. All data collected, including quality control data, laboratory results, including laboratory name, address, and phone number.

First copy and attachments retained by inspector *Second copy and attachments retained by owner*

Third copy only (no attachments) mailed to:
Department of Health Services
Childhood Lead Poisoning Prevention Branch
Reports
1515 Clay Street, No. 1801
Oakland, CA 94612
FAX (510) 622-5002

Appendix F

XRF Performance Characteristics Sheet

Performance Characteristic Sheet

EFFECTIVE DATE: **June 26, 1996** **EDITION NO.: 3**

MANUFACTURER AND MODEL:

Make: *Scitec Corporation*
Model: *MAP-4*
Source: ^{57}Co
Note: This sheet supersedes all previous sheets for the XRF instrument of the make, model, and source shown above.

FIELD OPERATION GUIDANCE

OPERATING PARAMETERS

Test mode, Screen mode, or Unlimited mode.

XRF CALIBRATION CHECK LIMITS

0.6 to 1.2 mg/cm^2 (inclusive)

SUBSTRATE CORRECTION:

When using Unlimited mode, substrate correction recommended for:

None

When using Unlimited mode, substrate correction <u>not</u> recommended for:

Brick, Concrete, Drywall, Metal, Plaster, and Wood

When using Screen or Test mode, for XRF results below 4.0 mg/cm^2, substrate correction recommended for:

Drywall, Metal, and Wood

When using Screen or Test mode, substrate correction <u>not</u> recommended for:

Brick, Concrete, and Plaster

INCONCLUSIVE RANGE OR THRESHOLD

UNLIMITED MODE READING DESCRIPTION	SUBSTRATE	INCONCLUSIVE RANGE (mg/cm^2)
Results not corrected for substrate bias for unlimited mode readings	Brick	0.91 to 1.19
	Concrete	0.91 to 1.19
	Drywall	0.91 to 1.19
	Metal	0.91 to 1.19
	Plaster	0.91 to 1.19
	Wood	0.91 to 1.19

SCREEN MODE READING DESCRIPTION	SUBSTRATE	INCONCLUSIVE RANGE (mg/cm²)
Results corrected for substrate bias for screen mode readings on drywall, metal, and wood substrates only	Brick	0.91 to 1.09
	Concrete	0.91 to 1.09
	Drywall	0.91 to 1.39
	Metal	0.91 to 1.19
	Plaster	0.91 to 1.09
	Wood	0.91 to 1.29

TEST MODE READING DESCRIPTION	SUBSTRATE	THRESHOLD (mg/cm²)	INCONCLUSIVE RANGE (mg/cm²)
Readings corrected for substrate bias for test mode readings on drywall, metal, and wood substrates only	Brick	0.9	None
	Concrete	0.9	None
	Drywall	None	0.91 to 1.39
	Metal	None	0.91 to 1.09
	Plaster	0.9	None
	Wood	None	0.91 to 1.29

BACKGROUND INFORMATION

EVALUATION DATA SOURCE AND DATE

This sheet is supplemental information to be used in conjunction with Chapter 7 of the HUD *Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing* ("HUD Guidelines"). Performance parameters shown on this sheet are calculated from an EPA/HUD evaluation using archived building components. Testing was conducted on approximately 150 test locations. All of the test locations were tested in February 1996 using two different instruments. One instrument had a new source installed in July 1994 and its strength at the time of testing was calculated as 9.4 mCi. The other instrument had a new source installed in September 1994 and its strength at the time of testing was calculated as 10.6 mCi.

OPERATING PARAMETERS

Performance parameters shown in this sheet are applicable only when properly operating the instrument using the manufacturer's instructions and procedures described in Chapter 7 of the HUD Guidelines.

XRF CALIBRATION CHECK:

The calibration of the XRF instrument should be checked using the paint film nearest 1.0 mg/cm^2 in the NIST Standard Reference Material (SRM) used (e.g., for NIST SRM 2579, use the 1.02 mg/cm^2 film).

If readings are outside the acceptable calibration check range, follow the manufacturer's instructions to bring the instruments into control before XRF testing proceeds

SUBSTRATE CORRECTION VALUE COMPUTATION

Chapter 7 of the HUD Guidelines provides guidance on correcting XRF results for substrate bias. Supplemental guidance for using the paint film nearest 1.0 mg/cm^2 for substrate correction is provided:

XRF results are corrected for substrate bias by subtracting from each XRF result a correction value determined separately in each house for single-family housing or in each development for multifamily housing, for each substrate. The correction value is an average of XRF readings taken over the NIST SRM paint film nearest to 1.0 mg/cm^2 at test locations that have been scraped bare of their paint covering. Compute the correction values as follows:

- Using the same XRF instrument, take three readings on a <u>bare</u> substrate area covered with the

NIST SRM paint film nearest 1 mg/cm^2. Repeat this procedure by taking three more readings on a second bare substrate area of the same substrate covered with the NIST SRM.

- Compute the correction value for each substrate type where XRF readings indicate substrate correction is needed by computing the average of all six readings as shown below.

  For each substrate type (the 1.02 mg/cm^2 NIST SRM is shown in this example; use the actual lead loading of the NIST SRM used for substrate correction):

$$\left.\begin{matrix}\text{Correction}\\ \text{Value}\end{matrix}\right\} = \frac{1^{st} + 2^{nd} + 3^{rd} + 4^{th} + 5^{th} + 6^{th}\ \text{Reading}}{6} - 1.02\,mg/cm^2$$

- Repeat this procedure for each substrate requiring substrate correction in the house or housing development.

EVALUATING THE QUALITY OF XRF TESTING

Randomly select ten testing combinations for retesting from each house or from two randomly selected units in multifamily housing. Use either 15-second readings or 60-second readings.

Conduct XRF retesting at the ten testing combinations selected for retesting.

Determine if the XRF testing in the units or house passed or failed the test by applying the steps below.

Compute the Retest Tolerance Limit by the following steps:

Determine XRF results for the original and retest XRF readings. Do not correct the original or retest results for substrate bias. In single-family and multi-family housing, a result is defined as a single reading. Therefore, there will be ten original and ten retest XRF results for each house or for the two selected units.

Calculate the average of the original XRF result and retest XRF result for each testing combination.

Square the average for each testing combination.

Add the ten squared averages together. Call this quantity C.

Multiply the number C by 0.0072. Call this quantity D.

Add the number 0.032 to D. Call this quantity E.

Take the square root of E. Call this quantity F.

Multiply F by 1.645. The result is the Retest Tolerance Limit.

Compute the average of all ten original XRF results.

Compute the average of all ten retest XRF results.

Find the absolute difference of the two averages.

If the difference is less than the Retest Tolerance Limit, the inspection has passed the retest. If the difference of the overall averages equals or exceeds the Retest Tolerance Limit, this procedure should be repeated with ten new testing combinations. If the difference of the overall averages is equal to or greater than the Retest Tolerance Limit a second time, then the inspection should be considered deficient.

Use of this procedure is estimated to produce a spurious result approximately 1% of the time. That is, results of this procedure will call for further examination when no examination is warranted in approximately 1 out of 100 dwelling units tested.

TESTING TIMES

For screen, test, and confirm modes, the MAP 4 instrument tests until a K-shell result is obtained relative to a level of precision. A result is "positive", "negative" or "retest" as displayed by indicator lights. For the unlimited mode, the MAP 4 instrument tests until a K-shell result is indicated relative to an action level (1.0 mg/cm ^{2} for archive testing) and the current precision, or until the the reading is terminated by releasing the trigger. A few unlimited mode readings were terminated because they exceeded the two-minute limit used for archive testing. The following tables provide testing time information for three testing modes. Insufficient information is available to provide this information for confirm mode. All times have been scaled to match an initial 12 miC source. Note that source strength and factors such as substrate may affect testing times.

UNLIMITED MODE TESTING TIMES (Seconds)

SUBSTRATE*	ALL DATA			MEDIAN FOR LABORATORY-MEASURED LEAD LEVELS (mg/cm²)		
	25th Percentile	Median	75th Percentile	Pb < 0.25	0.25 ≤ Pb < 1.0	1.0 ≤ Pb
Wood Drywall	3	4	6	4	13	3
Metal	3	4	8	4	9	3
Brick Concrete Plaster	4	5	8	6	6	3

*The general calibration was used for wood, drywall, brick, concrete, plaster. Steel calibration was used for metal. (There are no aluminum samples in the archive facility).

SCREEN MODE TESTING TIMES (Seconds)

SUBSTRATE*	ALL DATA			MEDIAN FOR LABORATORY-MEASURED LEAD LEVELS (mg/cm²)		
	25th Percentile	Median	75th Percentile	Pb < 0.25	0.25 ≤ Pb < 1.0	1.0 ≤ Pb
Wood Drywall	4	6	7	5	6	7
Metal	4	5	6	5	5	5
Brick Concrete Plaster	11	11	13	11	11	11

*The general calibration was used for wood, drywall, brick, concrete, plaster. Steel calibration was used for metal. (There are no aluminum samples in the archive facility).

TEST MODE TESTING TIMES (Seconds)						
SUBSTRATE	ALL DATA			MEDIAN FOR LABORATORY-MEASURED LEAD LEVELS (mg/cm²)		
	25th Percentile	Median	75th Percentile	Pb < 0.25	0.25 ≤ Pb < 1.0	1.0 ≤ Pb
Wood Drywall	17	22	27	21	20	28
Metal	13	20	23	20	20	20
Brick Concrete Plaster	41	42	52	41	46	43

*The general calibration was used for wood, drywall, brick, concrete, plaster. Steel calibration was used for metal. (There are no aluminum samples in the archive facility).

BIAS AND PRECISION

Do not use these bias and precision data to correct for substrate bias. These bias and precision data were computed without substrate correction from samples with laboratory-measured lead levels less than 4.0 mg/cm² lead. There were 15 testing locations taken in the screen mode with a laboratory-measured lead levels equal to or greater than 4.0 mg/cm² lead. None of these had XRF readings less than 1.0 mg/cm². There were 15 testing locations taken in the test mode with a laboratory-measured lead levels equal to or greater than 4.0 mg/cm² lead. None of these had XRF readings less than 1.0 mg/cm². There were not any testing locations taken in the confirm mode with a laboratory-measured lead levels equal to or greater than 4.0 mg/cm² lead. There were 15 testing locations taken in the unlimited mode with a laboratory-measured lead levels equal to or greater than 4.0 mg/cm² lead. None of these had XRF readings less than 1.0 mg/cm². All testing was done in February 1996 with two different instruments. The following data are for illustrative purposes only. Actual bias must be determined on the site. Inconclusive ranges provided above already account for bias and precision.

SCREEN MODE READING MEASURED AT	SUBSTRATE	BIAS (mg/cm²)	PRECISION* (mg/cm²)
0.0 mg/cm²	Brick	-0.1	0.3
	Concrete	-0.1	0.3
	Drywall	0.1	0.2
	Metal	0.1	0.3
	Plaster	-0.1	0.3
	Wood	0.0	0.2
0.5 mg/cm²	Brick	0.0	0.3
	Concrete	0.0	0.3
	Drywall	0.3	0.4
	Metal	0.2	0.3
	Plaster	0.0	0.3
	Wood	0.2	0.4
1.0 mg/cm²	Brick	0.1	0.4
	Concrete	0.1	0.4
	Drywall	0.5	0.6
	Metal	0.3	0.3
	Plaster	0.1	0.4
	Wood	0.4	0.6

2.0 mg/cm²	Brick	0.4	0.5
	Concrete	0.4	0.5
	Drywall	0.9	0.8
	Metal	0.5	0.3
	Plaster	0.4	0.5
	Wood	0.7	0.8

*Precision at 1 standard deviation

TEST MODE READING MEASURED AT	SUBSTRATE	BIAS (mg/cm²)	PRECISION* (mg/cm²)
0.0 mg/cm²	Brick	-0.1	0.2
	Concrete	-0.1	0.2
	Drywall	0.1	0.1
	Metal	0.1	0.2
	Plaster	-0.1	0.2
	Wood	0.0	0.1
0.5 mg/cm²	Brick	-0.1	0.3
	Concrete	-0.1	0.3
	Drywall	0.3	0.4
	Metal	0.2	0.2
	Plaster	-0.1	0.3
	Wood	0.2	0.4
1.0 mg/cm²	Brick	-0.1	0.3
	Concrete	-0.1	0.3
	Drywall	0.5	0.6
	Metal	0.3	0.2
	Plaster	-0.1	0.3
	Wood	0.4	0.6
2.0 mg/cm²	Brick	0.0	0.4
	Concrete	0.0	0.4
	Drywall	1.0	0.8
	Metal	0.5	0.2
	Plaster	0.0	0.4
	Wood	0.8	0.8

*Precision at 1 standard deviation

CLASSIFICATION OF RESULTS

XRF results are classified as positive if they are greater than the upper boundary of the inconclusive range, and negative if they are less than the lower boundary of the inconclusive range, or inconclusive if in between. The inconclusive range includes both its upper and lower bounds. Earlier editions of this *XRF Performance Characteristics Sheet* did not include both bounds of the inconclusive range as "inconclusive." While this edition of the Performance Characteristics Sheet uses a different system, the specific XRF readings that are considered positive, negative, or inconclusive for a given XRF model and substrate remain unchanged, so previous inspection results are not affected.

DOCUMENTATION

A document titled *Methodology for XRF Performance Characteristic Sheets* provides an explanation of the statistical methodology used to construct the data in the sheets, and provides empirical results from using the recommended inconclusive ranges or thresholds for specific XRF instruments. For a copy of this document call the National Lead Information Center Clearinghouse at 1-800-424-LEAD.

This XRF Performance Characteristics Sheet is a joint product of the U.S. Environmental Protection Agency (EPA) and the U.S. Department of Housing and Urban Development (HUD). The issuance of this sheet does not constitute rulemaking. The information provided here is intended solely as guidance to be used in conjunction with Chapter 7, Lead-Based Paint Inspection, of the *Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing*. EPA and HUD reserve the right to revise this guidance. Please address questions and comments on this sheet to: Director, Office of Lead Hazard Control (L), U.S. Department of Housing and Urban Development, 451 Seventh St, S.W., Washington, DC 20410.

Pacific Environmental Company

Limited Asbestos and Lead Survey Report

Marshall Elementary School Modernization Project
3288 North G Street
San Bernardino, California

Prepared for:

San Bernardino City Unified School District
777 North F Street
San Bernardino, CA 92401

Prepared by:

Pacific Environmental Company
28202 Cabot Road, Suite 300
Laguna Niguel, CA 92677

July 28, 2008

Project Number: 08169

Limited Asbestos and Lead Survey Report

Marshall Elementary School Modernization Project
3288 North G Street
San Bernardino, California

Executive Summary

Pacific Environmental Company conducted a limited asbestos and lead survey in anticipation of modernizations at Marshall Elementary School, which is located at 3288 North G Street in the City of San Bernardino, California. All work was conducted by State of California certified personnel and sampling was conducted in accordance with established sampling protocols. Laboratory analysis was performed by AmeriSci Los Angeles, an independent and accredited laboratory.

This executive summary is not to be utilized as a stand-alone document. The report shall be read in its entirety. The reader must review the detailed information provided in the accompanying text. Any interpretation, use, or conclusions resulting from the data contained in this report is the responsibility of the reader.

Asbestos-containing material (ACM) is defined by the Federal Environmental Protection Agency (EPA) as material containing more than one percent asbestos as determined by PLM, however, the California Department of Occupational Safety and Health (CalOSHA) classifies any material as having greater than one tenth of one percent asbestos as asbestos-containing construction material (ACCM).

Asbestos-containing materials identified during our inspection include original black floor tile mastic in the HVAC Closet in Building E, Room E3 (~limited quantity identified, may be present in other, concealed areas), sheet flooring in the kitchen, the original drywall joint compound materials in the offices in the Administration Building, the roofing system, including composite built-up roofing, flashings and mastics on the Administration Building, roof flashings on the D building, roof penetration mastics on all of the buildings, and flex joints and duct tape on mechanical equipment.

Current EPA regulations require that the asbestos-containing building materials be removed prior to demolition or renovation, if they are going to be impacted. The identified asbestos-containing materials are in good condition and do not require immediate action; however, if they are to be impacted by the renovations, then they must be removed in accordance with State of California Division of Occupational Safety and Health (Cal/OSHA) and South Coast Air Quality Management District (SCAQMD) requirements.

A licensed and certified asbestos abatement contractor must perform any asbestos abatement that takes place at the subject property. Waste generated from the asbestos abatement must be properly transported and disposed of.

Interior lead components identified at the site include various doorframes, doors, windows, window frames, blue ceramic wall tile, and walls in C1. Exterior lead components include various doors, doorframes, window frames, catwalk components, support columns and beams, eaves, fascia, joists and downspouts. The lead-laden paint, ceramic and porcelain finishes are generally in good condition but will likely need to be removed to facilitate the modernizations at the site. There were some defective paints identified which should be treated during the modernizations to prevent exposure to lead dust. A complete listing of our assays in included within the appendices of this report.

Existing fluorescent lamps (containing mercury vapor) should be removed, and the mercury recycled. PCB-containing electrical ballasts in light fixtures should also be segregated, and either disposed in a hazardous waste landfill or incinerated, in accordance with federal and state regulations and DTSC guidelines.

Pacific Environmental recommends that all future renovation, demolition, construction or abatement activities with the potential for disturbing the identified ACM or lead laden ceramic tile, be performed by properly trained and qualified personnel. These activities should employ state-of-the-art techniques, and be conducted in accordance with all applicable local, State and Federal laws and regulations.

Every effort was made to sample all of the building materials, however some materials may have been concealed and could not be exposed without demolition. If any additional materials are encountered during the demolition or renovation activities, please call us and we will sample and analyze accordingly.

The presence of the identified hazardous materials should be brought to the attention of contractors and personnel involved in the project at the subject site. Specifications have been prepared for the removal and handling of specific hazardous materials, such as those containing asbestos and lead.

Any employees, visitors, or contractors entering this building should be notified of the presence and condition of the asbestos-containing materials, lead-based paints, and other hazardous materials (including those listed under Proposition 65), in accordance with applicable regulations.

Table of Contents

Introduction	1
Quality Control Procedures	2
Site Description	2
Asbestos Inspection and Sampling Procedures	3
Asbestos Inspection Results	5
Summary and Recommendations for Asbestos-Containing Materials	5
Lead Inspection and Sampling Procedures	6
Lead Inspection Results	7
Lead Summary and Recommendations	7
Other Hazardous Materials	8
Limitations	8
References	9

Appendix A	Site Plans
Appendix B	Bulk Sample Summary Table
Appendix C	Asbestos Sample Analysis Reports and Chain of Custody
Appendix D	XRF Sampling Results
Appendix E	DHS Form 8552
Appendix F	XRF Performance Characteristics Sheet

Limited Asbestos and Lead Survey Report

Marshall Elementary School Modernization Project
3288 North G Street
San Bernardino, California

Introduction

Pacific Environmental Company was retained by the San Bernardino City Unified School District to conduct a limited investigation to identify the presence of asbestos-containing materials, lead-based paints and other lead laden components that will require abatement or treatment, in conjunction with the school modernizations at Marshall Elementary School which is located at 3288 North G Street in San Bernardino, California.

All work was conducted by State of California certified personnel and sampling was conducted in accordance with established sampling protocols. Laboratory analysis was performed by AmeriSci Los Angeles, an independent and accredited laboratory.

Field Services for the inspection were conducted on June 3 and July 9, 2008. The project team included David Tillema, a Cal/OSHA Certified Site Surveillance Technician and DHS Certified Lead Paint Inspector/Assessor, Victor Sanchez a Cal/OSHA Certified Site Surveillance Technician, and Michael Lyssy, a State Certified Asbestos Consultant and Registered Environmental Assessor.

The scope of work for this project included the following key elements:

- Review, verification and incorporation of the original AHERA inspection and re-inspection data and any subsequent reports detailing the results of prior asbestos and lead testing at the School into this report.
- Inspection and assessment of asbestos-containing materials, lead-based paints, lead glazed ceramics and pcb light ballasts
- Preparation of a final report that is suitable for inclusion in the District's specifications for abatement of hazardous building materials.

Prior to our asbestos assessments, we evaluated the site conditions and developed our sampling strategy to ensure identification of all asbestos-containing materials. Representative sampling of homogeneous materials was conducted per SCAQMD guidelines, and all identifiable suspect materials were sampled. Asbestos analysis was performed by an independent, State Certified, NVLAP Accredited Laboratory. Bulk samples were analyzed by polarized light microscopy (PLM), EPA Method 600/R-93/116. This report details the specific site conditions and estimated quantities of Asbestos Containing Material (ACM) for the project. Areas affected by destructive sampling were repaired so as not to cause hazards to school personnel, survey crew, visitors and the general public.

Testing for lead-based paint was performed using an EDAX Map-4 portable X-ray fluorescence (XRF) spectrum analyzer. Testing was modeled after the protocol outlined in the Department of Housing and Urban Developments document titled Lead-Based Paint: Interim Guidelines For Hazard Identification and Abatement in Public and Indian Housing (1997 Revision).

Quality Control Procedures

Pacific Environmental Company's integrated resources, technologies, discipline, and expertise combine to ensure that the inspection and analysis for each project is conducted based on the following principles:

- All applicable regulations are addressed in order to ensure that our field inspectors and lab personnel meet their responsibilities, do so cost-effectively, and are equipped with the practical knowledge they need in order to understand and comply with regulations that affect them.
- Care is taken to make certain that the information provided and actions recommended are practical and cost effective in achieving regulatory compliance.

The 'management' approach utilized for this project assured that all work was performed using the highest standard of quality. All project results, reports and recommendations are reviewed for accuracy, content and quality prior to presentation. We recognize that, for each assignment we undertake, the information we develop and the conclusions and advice we provide, will be used to support important management decisions.

Pacific Environmental Company's Quality Assurance Program requires that all personnel:

- Provide specific objectives so that project activities can be evaluated with regard to precision, accuracy, reproducibility, completeness, and comparability.
- Provide specific guidance on the proper methodology for all activities.
- Be provided with ongoing training to enhance their technical skills.
- Be trained in QA/QC procedures and QC activities.
- Review all reports until they are acceptable in terms of technical and editorial quality, and all quality assurance activities have been successfully performed.

Site Description

Marshall Elementary School campus consists of seven school buildings. The school was built approximately fifty years ago.

The school buildings are a combination of masonry buildings and wood framed structures. The interior finishes include plaster and/or drywall walls and ceilings with applications of acoustical tile and suspended ceilings. The original floorings have been widely replaced throughout the campus. There is a catwalk system that connects several of the buildings.

All of the building are classroom building with the exception of the Administration Building which houses offices, the multi-purpose room, library and School Offices. The school was occupied at the time of our assessment and we worked after hours in an effort to characterize the site conditions. If any additional suspect materials are identified during the modernizations, please contact us to perform supplemental sampling.

Asbestos Inspection and Sampling Procedures

Asbestos-containing material (ACM) is defined by the Federal Environmental Protection Agency (EPA) as material containing more than one percent asbestos, as determined by polarized light microscopy (PLM). Title 8, Section 1529, of the California Code of Regulations, however, defines asbestos-containing construction material (ACCM) as any manufactured construction material that contains more than one-tenth of one percent asbestos by weight.

We reviewed the District's asbestos records on file in order to formulate our sampling strategy. The only documentation on file for the site was the Power Masters, Inc. AHERA summaries that were prepared originally in the late 1980s. This documentation had been marked-up to reflect the changes that have impacted ACMs over the years. The Power Master summary reports indicate that there were presumed asbestos floorings at the site, which are largely no longer present. They also indicated the presence of asbestos-containing sheet floorings in the kitchen and duct tape / flex joints on the mechanical equipment. We collected samples of the vinyl floorings, plaster, drywall, stucco and suspect roofing for material analysis to properly characterize the site conditions.

Subsequent to our review of the prior reports, a visual assessment of the suspect building materials located throughout the subject facility was completed prior to the collection of samples. During the visual assessment, the building materials suspected of containing asbestos were categorized by homogeneous areas. Materials are classified as homogenous when they appear uniform, have a consistent texture, and appear to have been installed at the same time.

The laboratory testing for the bulk samples was conducted in accordance with the recommended EPA Interim Method for Determination of Asbestos in Bulk Samples (EPA-600/R-93/116, July 1993).

The field investigation began with an initial site walk-through and identification of homogenous building materials suspected of containing asbestos. Samples were collected based on building layout, structural features, and mechanical and plumbing systems. Pacific Environmental then performed the following tasks:

- Evaluated whether materials suspected of containing asbestos were present at the site.
- Collected bulk samples, as required, to adequately characterize the suspect materials.
- Identified approximate sample locations and locations of identified ACM on field drawings or with photographs.
- Estimated the amount of ACM, where access allowed.
- Assessed the condition of the suspected and known ACMs.

At the time of inspection, suspect materials are assessed to be in good, damaged, or significantly damaged condition based on the following criteria:

> Good Condition - No or very limited visible damage or deterioration observed.
>
> Damaged Condition - Crumbling, blistering, water damage, gouges or other damage observed over less than 25% of the materials (one-tenth if evenly distributed); or accumulation of suspect powder, dust or debris observed below the material.
>
> Significantly Damaged - Crumbling, blistering, water damage, gouges or other damage observed over greater than 25% of the materials (one-tenth if evenly distributed); material delaminating or showing adhesive failure; or accumulation of suspect powder, dust or debris observed below the material.

The assessment process also includes classifying the material as Friable ACM or Non-Friable ACM. Friable ACM is the term given to any material that contains more than one percent (1%) asbestos by weight, which can be crumbled, pulverized, or reduced to powder by hand or mechanical pressure. The word "Friability" refers to a material's likeliness to re-

lease airborne fibers when in situ, or under mechanical pressure. There is a greater possibility that a friable material will release fibers into the air when disturbed than will a non-friable material (i.e., floor tiles, roofing materials, etc.), thereby causing a potential hazard.

After identifying those materials suspected of containing asbestos, the materials were grouped into homogeneous sampling areas. A homogeneous sampling area includes building materials that are uniform in texture and color and appear identical in every other respect. A modified AHERA protocol was used in estimating the number of samples to be collected. Actual samples collected were determined by field conditions. A total of ninety-two (92) bulk samples were collected and analyzed.

Bulk samples were collected by wetting the suspect material with amended water and cutting, scraping or coring it from its substrate using an appropriate sampling tool. Sampling tools were cleaned before and after each use to prevent cross contamination between sampling events. Small quantities of material, approximately 1/2 square inch each, were extracted from suspect materials and placed in sterile, airtight bags or vials, and sealed. Each sample was labeled with a unique identification number, utilizing a sequential numbering system. The sample was logged in on the bulk survey sheet and a description noted on the type of sample. Each sample container was then placed inside a larger sterile, airtight bag. As other samples were taken from each area, they were also placed inside this larger airtight bag. Sample locations were repaired using caulk, spray glue, encapsulant, or patching material as needed, but were not always returned to their original condition. The samples were transported under chain-of-custody to an independent NVLAP participating laboratory for analysis utilizing polarized light microscopy.

The laboratory testing was conducted in accordance with the EPA Interim Method for Determination of Asbestos in Bulk Samples (EPA-600/R-93/116, July 1993). Samples were examined for homogeneity, and non-homogeneous samples were ground to ensure homogeneity. Microscopic slides were prepared from each sample using a refractive index liquid, such as trisection and ethyl cinnamate, having a refractive index of 1.550; 1-bromo-naphthalene and 1-Iodonaphthalene, having a refractive index of 1.680; or hydrogenated terthenyl and 1-bromonaphtahlene, having a refractive index of 1.605. The slides were then examined for the presence of asbestos, utilizing polarized light microscopy (PLM) and dispersion staining techniques.

The percentage of asbestos was estimated by visual examination of fibers greater than five microns in length and with an aspect ratio of 3:1 or greater. The aspect ratio of 3:1 refers to the length of the fiber being three times as long as its width. If present, the identity of asbestos fibers was confirmed with appropriate refractive index liquids, application of dispersion staining and other techniques. The results were tabulated and detailed in the laboratory reports, which are included in the appendices of this report.

Asbestos Inspection Results

Based on our assessment services, the following materials were confirmed, or assumed, to contain greater than one percent (1%) asbestos, and are therefore classified as ACM and ACCM.

Material	Location	Estimated Quantity	Comments
Sheet Flooring	Kitchen of Admin Building	340 SF	-
Roof Penetrations Mastics	Roof Penetrations through-out campus	1,200 SF	Located at Roof Penetrations
Black Floor Tile Mastic	Building E. Room E3 HVAC Closet	100 SF	Additional mastics may be present
Drywall Joint Compounds	Admin Office Areas	2,500 SF	Original drywall systems
Roofing Systems, including roof composite, flashings and mas-tics	Admin Building	6,000 SF	-
Roof Flashings	D Building	400 SF	-
Flex Joints	Mechanical Equipment in Buildings D, E, and F	8 ea.	Located on Mechanical equipment in Buildings D, E, and F
Duct Tape	Heater Closet in Buildings D and E	45 LF	-

The Bulk Sample Summary Table, which identifies each sample and the corresponding analytical results, is included in Appendix B., The laboratory reports and chain of custody forms are included in Appendix C.

Summary and Recommendations for Asbestos-Containing Materials

All ACM that will be impacted by the planned modernizations must be removed pursuant to Rule 1403 of the South Coast Air Quality Management District's and CalOSHA Asbestos Regulations.

Abatement activities must be conducted in compliance with all applicable regulations, standards and generally accepted environmental and safety practices, including Federal OSHA (29 CFR 1926.58), EPA NESHAPS (40 CFR Part 61), and Toxic Substances Control Act (TSCA) Title II AHERA/ASHARA (40 CFR Part 763) Asbestos Regulations, the Occupa-tional Safety and Health Administration, Asbestos Construction Standard, 29 CFR 1926.1101, and Title 8, California Code of Regulations Section 1529, Cal-OSHA Construction Standard.

All asbestos waste must be properly disposed of and documented. Waste Manifests must be submitted at the end of a project. Disposing of a known hazardous waste is illegal in the State of California. Every effort was made to sample all of the building materials, however some materials may have been concealed and could not be exposed without demolition. If any additional materials are encountered during the demolition activities, we will arrange to sample and analyze them accordingly.

Lead Inspection and Sampling Procedures

Lead-based paint and lead glazing on ceramics is of concern both as a source of direct exposure through ingestion of paint chips, and as a contributor to lead interior dust and exterior soil. Lead was widely used as a major ingredient in most interior and exterior oil-based paints prior to 1950. Lead compounds continued to be used as corrosion inhibitors, pigments and drying agents beginning in the early 1950's. In 1972, the Consumer Products Safety Commission limited lead content in new paint to 0.5% (5000 ppm) and, in 1978, to 0.06% (600 ppm). It has also been used extensively as a glaze on ceramic and porcelain finishes.

The U.S. Department of Housing and Urban Development (HUD) and the U.S. Environmental Protection Agency (EPA) define an inspection as a surface-by-surface investigation to determine the presence of lead-based paint (see 40 CFR part 745 and Title X of the 1992 Housing and Community Development Act).

As per the EPA & HUD guidelines, lead-based paint is defined as a dried paint film with a lead concentration of greater than or equal to 1.0 mg/cm2 or 0.5 percent by weight. Lead paint amounts were reported in mg/cm2 because this unit of measurement does not depend on the number of layers of non-lead based paint.

Portable XRF lead-based paint analyzers are the most common primary analytical method for inspections because of their demonstrated abilities to:

1. Determine if lead is present on many different types of surfaces

2. Measure the paint without destructive sampling or paint removal

3. Provide sample results immediately and at a relatively low cost per sample

Portable XRF instruments expose a building component to X-rays or gamma radiation, which causes lead to emit X-rays with a characteristic frequency or energy. The intensity of this radiation is measured by the XRF instrument. The inspector must then compare this displayed value (reading) with the inconclusive range or threshold specified in the XRF Performance Characteristic Sheet for the specific substrate beneath the painted surface. If the reading is less than the lower boundary of the inconclusive range, or less than the threshold, then the reading is considered negative. If the reading is greater than the upper boundary of the inconclusive range, or greater or equal to the threshold, then the reading is considered positive. Readings within the inconclusive range, including its boundary values, are considered inconclusive. Because the inconclusive ranges and/or thresholds shown in the Performance Characteristic Sheet are based on 1.0 mg/cm2, positive and negative readings are consistent with the HUD definition of lead-based paint for identification and disclosure purposes. The method employed for paint testing for this project was X-Ray Fluorescence (XRF) using an EDAX MAP4 lead paint analyzer (Serial Number M41509) with the capability to measure the lead content in dry paint films in the range of 0 to 50 milligrams per square centimeter.

The instrument's calibration was verified according to the manufacturer's specifications, in compliance with the Performance Characteristic Sheet (PCS) developed for this instrument. The PCS is located in Appendix F of this report. The readings from this instrument produce a 95% confidence level that the "lead" reading accurately reflects the actual level of lead in the tested surfaces, relative to the federal action level. Current industry standards suggest that, when it is determined that paint abatement and/or interim control activities will be performed on components, they should be performed according to practices that are in the HUD Guidelines and the regulations under section 402 of the Toxic Substances Control Act (TSCA), 15 USC 2682.

Lead Inspection Results

Sampling for this inspection was representative and any components that were not tested, but are similar to those components that tested positive for lead, should be considered and treated as lead laden.

Interior lead components identified at the site include various doorframes, doors, windows, window frames, blue ceramic wall tile, and walls in C1. Exterior lead components include various doors, doorframes, window frames, catwalk components, support columns and beams, eaves, fascia, joists and downspouts. The lead-laden paint, ceramic and porcelain finishes are generally in good condition but will likely need to be removed to facilitate the modernizations at the site. There were some defective paints identified which should be treated during the modernizations to prevent exposure to lead dust. A complete listing of our assays in included within the appendices of this report.

The lead-laden paint, ceramic and porcelain finishes are generally in good condition but will likely need to be removed to facilitate the modernizations at the site. There were some defective paints identified which should be treated during the modernizations to prevent exposure to lead dust.

Lead Summary and Recommendations

The federal and CAL/OSHA regulations for lead in construction do not specify a level of a lead in paint that classifies it as LBP. However, federal and state OSHA regulations specify ***airborne lead levels*** that should not be exceeded during construction without appropriate protection and training.

The action level for lead is 30 micrograms per cubic meter of air (µg/m3), and the permissible exposure limit (PEL) is 50 µg/m3. These airborne lead levels can be exceeded during construction activities such as scraping, sanding, grinding, blasting, and torching LBP surfaces, even when levels of lead in paint are far below the HUD definition of LBP of 1.0 mg/cm2 or 0.5 percent lead by weight. The XRF is designed to accurately quantify paint around the set abatement level (1.0 mg/cm2, 5,000 parts per million, or 0.5 percent by weight). However, painted surfaces tested with XRF that result in instrument readings much less than 1.0 mg/cm2 (even 0.0 mg/cm2 and negative results) may contain amounts of lead that could create an airborne hazard to workers during construction.

Based on the levels of lead in the components identified in the building survey, Pacific Environmental recommends that only properly trained and equipped individuals be assigned site preparation tasks that would involve treatment or demolition of these components. Procedures and engineering controls must be designed to follow CAL/OSHA and Department of Health Services (State of California) requirements, and workers must wear appropriate personal protective equipment during the work.

Other Hazardous Materials

During our assessment of the structures, we visually inspected the locations of fluorescent light tubes and PCB ballasts. There are fluorescent fixtures throughout the main building with ballasts that are assumed to contain PCB's and fluorescent tubes. All PCB's and spent fluorescent light tubes should be handled, packaged and disposed of in compliance with current California Environmental Protection Agency, Department of Toxic Substances Control Guidelines.

Limitations

This report is not intended to identify all hazards or unsafe conditions or to imply that others do not exist. This survey was planned and implemented on the basis of a mutually agreed upon scope of work, and Pacific Environmental's experience in performing this type of assessment.

Pacific Environmental has performed this survey in a professional manner, using the degree of skill and care exercised for similar projects, under similar conditions, by reputable and competent environmental consultants. Pacific Environmental shall not be responsible for conditions or consequences arising from relevant facts that were concealed, withheld, or not fully disclosed at the time that this survey was conducted.

Pacific Environmental further states that no warranties, expressed or implied, are made regarding the quality, fitness, or results to be achieved as a consequence of this report, or impacted by information not properly disclosed to Pacific at the time of this report. It further states that no responsibility is assumed for the control or correction of conditions or practices existing at the premises of the client.

References

AHERA Summary, prepared by Power Masters, Inc.

Title 17, California Code of Regulations, Division 1, Chapter 8: Accreditation, Certification and Work Practices for Lead-Based Paint and Lead Hazards

Title 8, California Code of Regulations, Section 1532.1: Cal/OSHA Construction Safety Orders, Lead

"Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing," US Department of Housing and Urban Development, June 1995

South Coast Air Quality Management District Requirements (Rule 1403)

National Emissions Standards for Hazardous Air Pollutants, 40 CFR 61, M

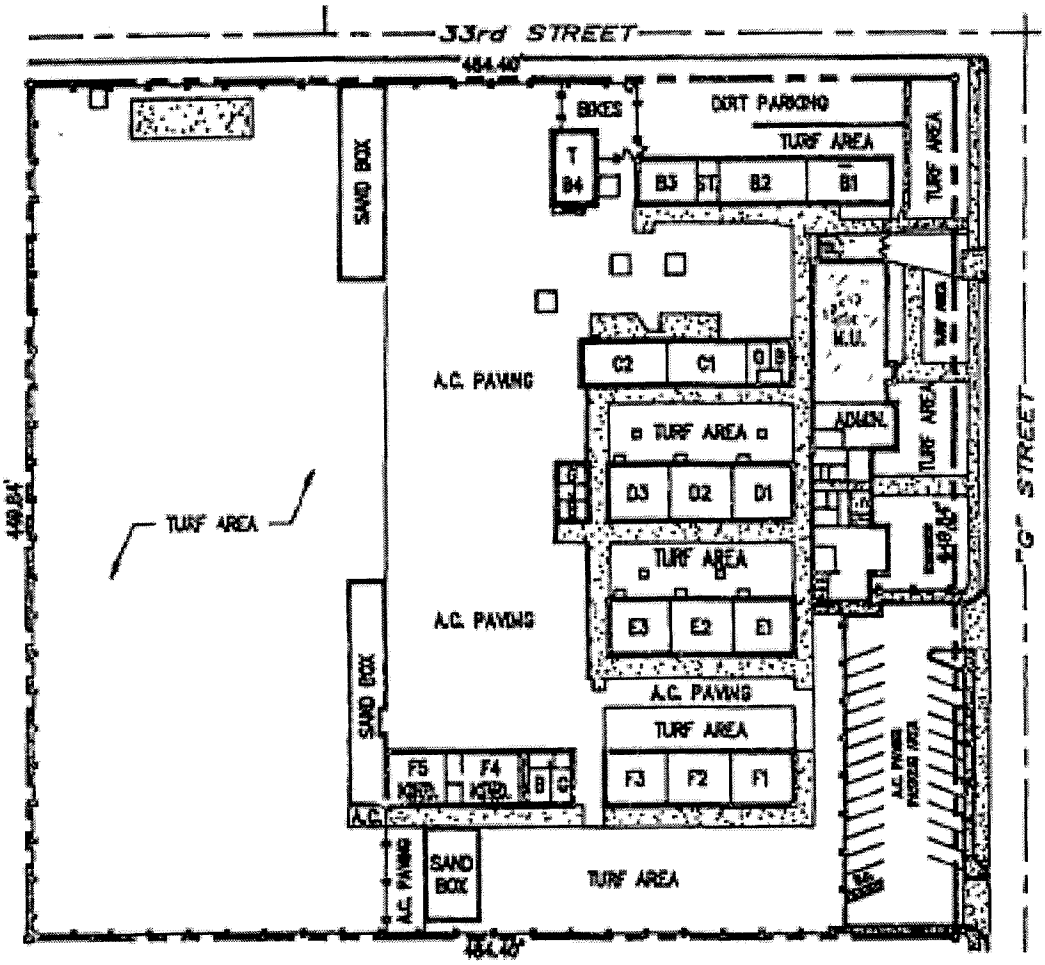
Occupational Safety and Health Administration, Asbestos in the Workplace, 29 CFR 1910.1001

Occupational Safety and Health Administration, Asbestos Construction Standard, 29 CFR 1926.1101

Title 8, California Code of Regulations Section 1529, Cal-OSHA Construction Standard

Appendix A

Site Plan



DATE PREPARED: 7/7/2008	DRAWN BY: M.L.	DRAWING TITLE: Site Plan/Sample Plan Marshall Elementary School 3288 North G Street San Bernardino, California
REVISION:	SOURCE: SBCUSD	
PROJECT NO: 08169	OTHER:	
PROJECT NAME: Limited Asbestos and Lead Survey		CLIENT: San Bernardino City Unified School District

FIGURE NO. 1

Appendix B

Bulk Sample Summary Table

MARSHALL ELEMENTARY SCHOOL
BULK SAMPLE SUMMARY

Sample No.	Sample Description	Sample Location	Asbestos %
001	Carpet Glue	Building F, F5	NAD
002	Brown Basecve and Mastic	Building F, F5	NAD
003	Beige 12" VFT w Specs & Mastic	Building F, F5	NAD
004	Drywall/Joint Compound	Building F, F4	NAD
005	Drywall/Joint Compound	Building F, F4	NAD
006	Drywall/Joint Compound	Copy Room, Storage	NAD
007	2x4 Ceiling Tile	Building F, Exterior Storage Closet	NAD
008	Textured Exterior Material	Building F Exterior	NAD
009	Carpet Glue	Building F, F3	NAD
010	2x4 Ceiling Tile	Building F, F3	NAD
011	Beige 12" VFT w Specs & Mastic	Building F, F3	NAD
012	Brown Basecve and Mastic	Building F, F3	NAD
013	Plaster	Building F, F2	NAD
014	Plaster	Building F, F2	NAD
015	Plaster	Building F, F2	NAD
016	Stucco	Building F	NAD
017	Plaster	Building E, E3	NAD
018	Brown Basecve and Mastic	Building E, E3	NAD
019	2x4 Ceiling Tile	Building E, E3	NAD
020	Beige 12" VFT w Specs & Mastic	Building E, E3	NAD
021	Carpet Glue	Building E, E3	NAD
022	Black Mastic	Building E, E3 (HVAC Closet)	8% Chrysotile
023	Plaster	Building E, E2	NAD
024	Plaster	Building E, E2	NAD
025	Stucco	Building E	NAD
026	Plaster	Building E, E3	NAD
027	Carpet Glue	Building D, D4	NAD
028	Drywall/Joint Compound	Building D, D4	NAD
029	Plaster	Building D, D3	NAD
030	Brown Basecve and Mastic	Building D, D4	NAD
031	2x4 Ceiling Tile	Building D, D4	NAD
032	Stucco	Building D	NAD
033	Plaster	Building D, D2	NAD
034	Drywall/Joint Compound	Building D, D2	NAD
035	Drywall/Joint Compound	Building D, D1	NAD
036	Plaster	Building D, D1	NAD
037	Beige 12" VFT w Specs & Mastic	Building C, C2	NAD
038	Brown Basecve and Mastic	Building C, C2	NAD
039	Drywall/Joint Compound	Building C, C2	NAD
040	Plaster	Building C, C2	NAD
041	Carpet Glue	Building C, C2	NAD
042	Stucco	Building C	NAD
043	2x4 Ceiling Tile	Building C, C1	NAD
044	Drywall/Joint Compound	Building C, C1	NAD
045	Plaster	Building C, C1	NAD
046	Plaster	Building C, Boy's Restroom	NAD
047	Drywall/Joint Compound	Building C, Boy's Restroom	NAD
048	Plaster	Building B, B1	NAD
049	Brown Basecve and Mastic	Building B, B1	NAD
050	2x4 Ceiling Tile	Building B, B1	NAD
051	Carpet Glue	Building B, B1	NAD
052	Beige 12" VFT and Mastic	Building B, B1	NAD
053	Stucco	Building B	NAD
054	Plaster	Building B, B2	NAD
055	Plaster	Building B, B3	NAD

MARSHALL ELEMENTARY SCHOOL
BULK SAMPLE SUMMARY

Sample No.	Sample Description	Sample Location	Asbestos %
056	Drywall/Joint Compound	Building B, Custodian Storage	NAD
057	Drywall/Joint Compound	Building B, Custodian Storage	NAD
058	Drywall/Joint Compound	Building B, Custodian Storage	NAD
059	Off White 12" VFT and Mastic	Admin Building, M.U.	NAD
060	Drywall/Joint Compound	Admin Building, M.U.	NAD
061	Plaster	Admin Building, M.U.	NAD
062	Brown Basecove and Mastic	Admin Building, M.U.	NAD
063	12"x12" Ceiling Tile	Admin Building, Kitchen	NAD
064	Ceiling Tile Mastic	Admin Building, Kitchen	NAD
065	Brown Basecove and Mastic	Admin Building, Library	NAD
066	Plaster	Admin Building, Library	NAD
067	2x4 Ceiling Tile	Admin Building, Library	NAD
068	Carpet Glue	Admin Building, Library	NAD
069	12"x12" Ceiling Tile	Admin Building, Library	NAD
070	Ceiling Tile Mastic	Admin Building, Library	NAD
071	Drywall/Joint Compound	Admin Building, Staff Room	NAD
072	Drywall/Joint Compound	Admin Building, Main Office	2% Chrysotile (Joint Compound)
073	White 12" VFT and Mastic	Admin Building, Staff Room	NAD
074	Tan 12" VFT	Admin Building, Nurse's Office	NAD
075	Plaster	Admin Building, Kitchen	NAD
076	Roof Core	Admin Building	NAD
077	Flashing	Admin Building	4% Chrysotile
078	Penetration Mastic	Admin Building	6% Chrysotile
079	Roof Core	Admin Building	4% Chrysotile
080	Roof Composite	Admin Building	8% Chrysotile
081	Flashing	Building B	NAD
082	Penetration Mastic	Admin Building	4% Chrysotile
083	Roof Core	Building C	NAD
084	Penetration Mastic	Building C	4% Chrysotile
085	Flashing	Building C	NAD
086	Flashing	Building D	3% Chrysotile
087	Roof Core	Building D	NAD
088	Penetration Mastic	Building D	5% Chrysotile
089	Roof Core	Building E	NAD
090	Penetration Mastic	Building E	3% Chrysotile
091	Roof Core	Building F	NAD
092	Penetration Mastic	Building F	3% Chrysotile

Appendix C

Asbestos Sample Analysis Reports and Chain of Custody

AmeriSci Los Angeles
24416 S. Main Street, Ste 308
Carson, California 90745
TEL: (310) 834-4868 • FAX: (310) 834-4772

PLM Bulk Asbestos Report

Pacific Environmental Company
Attn: Mike Lyssy
28202 Cabot Road
Suite 300
Laguna Niguel, CA 92677

Date Received 06/11/08
Date Examined 06/16/08

RE: SBCUSD; Marshall E.S

AmeriSci Job # 908061178
P.O. #

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
001	908061178-01	*No*	NAD (by CVES) by Paola Ducoing on 06/16/08
Location: Carpet Glue / Bldg. F / F-5			
Analyst Description: Yellow, Heterogeneous, Fibrous, Carpet Mastic			
Asbestos Types:			
Other Material: Synthetic fibers 25 %, Non-fibrous 75 %			
002	908061178-02L1	*No*	NAD (by CVES) by Paola Ducoing on 06/16/08
Location: Brown BaseCove / Bldg. F / F-5			
Analyst Description: Brown, Homogeneous, Non-Fibrous, Basecove			
Asbestos Types:			
Other Material: Non-fibrous 100 %			
002	908061178-02L2	*No*	NAD (by CVES) by Paola Ducoing on 06/16/08
Location: Brown BaseCove / Bldg. F / F-5			
Analyst Description: Cream, Homogeneous, Non-Fibrous, Mastic			
Asbestos Types:			
Other Material: Non-fibrous 100 %			
003	908061178-03L1	*No*	NAD (by CVES) by Paola Ducoing on 06/16/08
Location: 12" X 12" Beige VFT W/Dk Specs / Bldg. F / F-5			
Analyst Description: Beige, Homogeneous, Non-Fibrous, Floor Tile			
Asbestos Types:			
Other Material: Non-fibrous 100 %			
003	908061178-03L2	*No*	NAD (by CVES) by Paola Ducoing on 06/16/08
Location: 12" X 12" Beige VFT W/Dk Specs / Bldg. F / F-5			
Analyst Description: Yellow, Homogeneous, Non-Fibrous, Mastic			
Asbestos Types:			
Other Material: Non-fibrous 100 %			

See Reporting notes on last page

PLM Bulk Asbestos Report

SBCUSD; Marshall E.S

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
004	908061178-04.1	*No*	NAD (by CVES) by Paola Ducoing on 06/16/08
Location: Drywall / Joint Compound / Bldg. F / F-4			
Analyst Description: White/Brown, Heterogeneous, Fibrous, Drywall			
Asbestos Types:			
Other Material: Cellulose 15 %, Non-fibrous 85 %			
004	908061178-04.2	*No*	NAD (by CVES) by Paola Ducoing on 06/16/08
Location: Drywall / Joint Compound / Bldg. F / F-4			
Analyst Description: Beige/Green, Homogeneous, Fibrous, Joint Compound / Tape			
Asbestos Types:			
Other Material: Cellulose 10 %, Non-fibrous 90 %			
005	908061178-05	*No*	NAD (by CVES) by Paola Ducoing on 06/16/08
Location: Drywall / Joint Compound / Bldg. F / F-4			
Analyst Description: White/Brown, Heterogeneous, Fibrous, Drywall			
Asbestos Types:			
Other Material: Cellulose 15 %, Non-fibrous 85 %			
Comment: Joint compound not found in sample.			
006	908061178-06.1	*No*	NAD (by CVES) by Paola Ducoing on 06/16/08
Location: Drywall / Joint Compound / Copy Room / Storage			
Analyst Description: White/Brown, Heterogeneous, Fibrous, Drywall			
Asbestos Types:			
Other Material: Cellulose 15 %, Non-fibrous 85 %			
006	908061178-06.2	*No*	NAD (by CVES) by Paola Ducoing on 06/16/08
Location: Drywall / Joint Compound / Copy Room / Storage			
Analyst Description: Beige/Green, Heterogeneous, Fibrous, Joint Compound / Tape			
Asbestos Types:			
Other Material: Cellulose 10 %, Non-fibrous 90 %			

See Reporting notes on last page

PLM Bulk Asbestos Report

SBCUSD; Marshall E.S

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
007	908061178-07	*No*	NAD (by CVES) by Paola Ducoing on 06/16/08

Location: 2' X 4' Ceiling Panel / Bldg. F / Exterior Storage Closet

Analyst Description: White/Grey, Heterogeneous, Fibrous, Ceiling Tile
Asbestos Types:
Other Material: Cellulose 40 %, Mineral Wool 25 %, Non-fibrous 35 %

008	908061178-08	*No*	NAD (by CVES) by Paola Ducoing on 06/16/08

Location: Textured Exterior Material / Bldg. F / Exterior

Analyst Description: Brown, Homogeneous, Non-Fibrous, Textured Material
Asbestos Types:
Other Material: Non-fibrous 100 %

009	908061178-09	*No*	NAD (by CVES) by Paola Ducoing on 06/16/08

Location: Carpet Glue / Bldg. F / F-3

Analyst Description: Yellow/Brown, Heterogeneous, Fibrous, Carpet Mastic
Asbestos Types:
Other Material: Cellulose 35 %, Synthetic fibers 10 %, Non-fibrous 55 %

010	908061178-10	*No*	NAD (by CVES) by Paola Ducoing on 06/16/08

Location: 2' X 4' Ceiling Panel / Bldg. F / F-3

Analyst Description: White/Grey, Heterogeneous, Fibrous, Ceiling Tile
Asbestos Types:
Other Material: Cellulose 40 %, Mineral Wool 25 %, Non-fibrous 35 %

011	908061178-11L1	*No*	NAD (by CVES) by Paola Ducoing on 06/16/08

Location: 12" X 12" Beige VFT W/dk Specs / Bldg. F / F-3

Analyst Description: Beige, Homogeneous, Non-Fibrous, Floor Tile
Asbestos Types:
Other Material: Non-fibrous 100 %

011	908061178-11L2	*No*	NAD (by CVES) by Paola Ducoing on 06/16/08

Location: 12" X 12" Beige VFT W/dk Specs / Bldg. F / F-3

Analyst Description: Yellow/Black, Heterogeneous, Non-Fibrous, Mastic
Asbestos Types:
Other Material: Cellulose 5 %, Non-fibrous 95 %

See Reporting notes on last page

PLM Bulk Asbestos Report

SBCUSD; Marshall E.S

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
012	908061178-12L1	***No***	NAD (by CVES) by Paola Ducoing on 06/16/08
Location: Base Cove (Brown) / Bldg. F / F-3			
Analyst Description: Brown, Homogeneous, Non-Fibrous, Basecove			
Asbestos Types:			
Other Material: Non-fibrous 100 %			
012	908061178-12L2	***No***	NAD (by CVES) by Paola Ducoing on 06/16/08
Location: Base Cove (Brown) / Bldg. F / F-3			
Analyst Description: Cream/Tan, Heterogeneous, Fibrous, Mastic			
Asbestos Types:			
Other Material: Cellulose 8 %, Non-fibrous 92 %			
013	908061178-13	***No***	NAD (by CVES) by Paola Ducoing on 06/16/08
Location: Plaster / Bldg. F / F-2			
Analyst Description: Beige/Green, Heterogeneous, Non-Fibrous, Cementitious, Plaster			
Asbestos Types:			
Other Material: Non-fibrous 100 %			
014	908061178-14	***No***	NAD (by CVES) by Paola Ducoing on 06/16/08
Location: Plaster / Bldg. F / F-2			
Analyst Description: Beige, Heterogeneous, Non-Fibrous, Cementitious, Plaster			
Asbestos Types:			
Other Material: Non-fibrous 100 %			
015	908061178-15	***No***	NAD (by CVES) by Paola Ducoing on 06/16/08
Location: Plaster / Bldg. F / F-2			
Analyst Description: Beige/Green, Heterogeneous, Non-Fibrous, Cementitious, Plaster			
Asbestos Types:			
Other Material: Non-fibrous 100 %			
016	908061178-16	***No***	NAD (by CVES) by Paola Ducoing on 06/16/08
Location: Stucco / Bldg. F / Exterior (By F-2)			
Analyst Description: Grey, Heterogeneous, Non-Fibrous, Cementitious, Stucco			
Asbestos Types:			
Other Material: Non-fibrous 100 %			

See Reporting notes on last page

PLM Bulk Asbestos Report

SBCUSD; Marshall E.S

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
017	908061178-17	*No*	NAD (by CVES) by Paola Ducoing on 06/16/08
Location: Plaster / Bldg. E / E-3			
Analyst Description: Beige, Heterogeneous, Non-Fibrous, Cementitious, Plaster			
Asbestos Types:			
Other Material: Non-fibrous 100 %			
018	908061178-18L1	*No*	NAD (by CVES) by Paola Ducoing on 06/16/08
Location: Brown Base Cove / Bldg. E / E-3			
Analyst Description: Brown, Homogeneous, Non-Fibrous, Basecove			
Asbestos Types:			
Other Material: Non-fibrous 100 %			
018	908061178-18L2	*No*	NAD (by CVES) by Paola Ducoing on 06/16/08
Location: Brown Base Cove / Bldg. E / E-3			
Analyst Description: Beige, Heterogeneous, Non-Fibrous, Mastic / Backing			
Asbestos Types:			
Other Material: Non-fibrous 100 %			
019	908061178-19	*No*	NAD (by CVES) by Paola Ducoing on 06/16/08
Location: 2' X 4' Ceiling Panel / Bldg. E / E-3			
Analyst Description: White/Grey, Heterogeneous, Fibrous, Ceiling Tile			
Asbestos Types:			
Other Material: Cellulose 40 %, Mineral Wool 25 %, Non-fibrous 35 %			
020	908061178-20L1	*No*	NAD (by CVES) by Paola Ducoing on 06/16/08
Location: 12" X 12" VFT / Beige W/Dk Specs / Bldg. E / E-3			
Analyst Description: Beige, Homogeneous, Non-Fibrous, Floor Tile			
Asbestos Types:			
Other Material: Non-fibrous 100 %			
020	908061178-20L2	*No*	NAD (by CVES) by Paola Ducoing on 06/16/08
Location: 12" X 12" VFT / Beige W/Dk Specs / Bldg. E / E-3			
Analyst Description: Black/Yellow, Heterogeneous, Non-Fibrous, Mastic			
Asbestos Types:			
Other Material: Cellulose 3 %, Non-fibrous 97 %			

See Reporting notes on last page

PLM Bulk Asbestos Report

SBCUSD; Marshall E.S

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
021	908061178-21	*No*	NAD (by CVES) by Paola Ducoing on 06/16/08
Location: Carpet Glue W/Residual Mastic / Bldg. E / E-3			
Analyst Description: Yellow/Black, Heterogeneous, Non-Fibrous, Carpet Mastic			
Asbestos Types:			
Other Material: Cellulose 3 %, Synthetic fibers 7 %, Non-fibrous 90 %			
022	908061178-22	*Yes*	8 % (by CVES) by Paola Ducoing on 06/16/08
Location: Balck Mast In HVAC Door / Bldg. E / E-3 (HVAC Closet)			
Analyst Description: Black/Brown, Heterogeneous, Fibrous, Mastic / Backing			
Asbestos Types: Chrysotile 8.0 %			
Other Material: Cellulose 82 %, Non-fibrous 10 %			
023	908061178-23	*No*	NAD (by CVES) by Paola Ducoing on 06/16/08
Location: Plaster / Bldg. E / E-2			
Analyst Description: Grey, Heterogeneous, Non-Fibrous, Cementitious, Plaster			
Asbestos Types:			
Other Material: Non-fibrous 100 %			
024	908061178-24	*No*	NAD (by CVES) by Paola Ducoing on 06/16/08
Location: Plaster / Bldg. E / E-2			
Analyst Description: Grey, Heterogeneous, Non-Fibrous, Cementitious, Plaster			
Asbestos Types:			
Other Material: Non-fibrous 100 %			
025	908061178-25	*No*	NAD (by CVES) by Paola Ducoing on 06/16/08
Location: Stucco / Bldg. E / Exterior (By E-1)			
Analyst Description: Peach/Grey, Heterogeneous, Non-Fibrous, Cementitious, Stucco			
Asbestos Types:			
Other Material: Non-fibrous 100 %			
026	908061178-26	*No*	NAD (by CVES) by Paola Ducoing on 06/16/08
Location: Plaster / Bldg. E / E-3			
ıalyst Description: Off-White, Heterogeneous, Non-Fibrous, Cementitious, Plaster			
Asbestos Types:			
Other Material: Non-fibrous 100 %			

See Reporting notes on last page

PLM Bulk Asbestos Report

SBCUSD; Marshall E.S

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
027	908061178-27	*No*	NAD (by CVES) by Paola Ducoing on 06/16/08
Location: Carpet Glue / Bldg. D / D-4			
Analyst Description: Yellow, Heterogeneous, Fibrous, Carpet Mastic			
Asbestos Types:			
Other Material: Cellulose 2 %, Synthetic fibers 8 %, Non-fibrous 90 %			
028	908061178-28.1	*No*	NAD (by CVES) by Paola Ducoing on 06/16/08
Location: Drywall / Joint Compound / Bldg. D / D-4			
Analyst Description: White/Brown, Heterogeneous, Fibrous, Drywall			
Asbestos Types:			
Other Material: Cellulose 12 %, Non-fibrous 88 %			
028	908061178-28.2	*No*	NAD (by CVES) by Paola Ducoing on 06/16/08
Location: Drywall / Joint Compound / Bldg. D / D-4			
Analyst Description: Beige, Homogeneous, Non-Fibrous, Joint Compound			
Asbestos Types:			
Other Material: Non-fibrous 100 %			
029	908061178-29	*No*	NAD (by CVES) by Paola Ducoing on 06/16/08
Location: Plaster / Bldg. D / D-3			
Analyst Description: Off-White, Heterogeneous, Non-Fibrous, Cementitious, Plaster			
Asbestos Types:			
Other Material: Non-fibrous 100 %			
030	908061178-30L1	*No*	NAD (by CVES) by Paola Ducoing on 06/16/08
Location: Basecove / Bldg. D / D-4			
Analyst Description: Brown, Homogeneous, Non-Fibrous, Basecove			
Asbestos Types:			
Other Material: Non-fibrous 100 %			
030	908061178-30L2	*No*	NAD (by CVES) by Paola Ducoing on 06/16/08
Location: Basecove / Bldg. D / D-4			
Analyst Description: Cream, Homogeneous, Non-Fibrous, Mastic			
Asbestos Types:			
Other Material: Non-fibrous 100 %			

See Reporting notes on last page

PLM Bulk Asbestos Report

SBCUSD; Marshall E.S

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
030	908061178-30L3	***No***	NAD (by CVES) by Paola Ducoing on 06/16/08
Location: Basecove / Bldg. D / D-4			
Analyst Description: Beige, Homogeneous, Non-Fibrous, Joint Compound			
Asbestos Types:			
Other Material: Non-fibrous 100 %			
031	908061178-31	***No***	NAD (by CVES) by Paola Ducoing on 06/16/08
Location: 2' X 4' Ceiling Panel / Bldg. D / D-4			
Analyst Description: Grey, Heterogeneous, Fibrous, Ceiling Tile			
Asbestos Types:			
Other Material: Cellulose 40 %, Mineral Wool 25 %, Non-fibrous 35 %			
032	908061178-32	***No***	NAD (by CVES) by Paola Ducoing on 06/16/08
Location: Stucco / Bldg. D / Exterior (By D-3)			
Analyst Description: Grey, Heterogeneous, Non-Fibrous, Cementitious, Stucco			
Asbestos Types:			
Other Material: Non-fibrous 100 %			
033	908061178-33	***No***	NAD (by CVES) by Paola Ducoing on 06/16/08
Location: Plaster / Bldg. D / D-2			
Analyst Description: Off-White, Heterogeneous, Non-Fibrous, Cementitious, Plaster			
Asbestos Types:			
Other Material: Non-fibrous 100 %			
034	908061178-34.1	***No***	NAD (by CVES) by Paola Ducoing on 06/16/08
Location: Drywall / Joint Compound / Bldg. D / D-2			
Analyst Description: White/Brown, Heterogeneous, Fibrous, Drywall			
Asbestos Types:			
Other Material: Cellulose 8 %, Non-fibrous 92 %			
034	908061178-34.2	***No***	NAD (by CVES) by Paola Ducoing on 06/16/08
Location: Drywall / Joint Compound / Bldg. D / D-2			
Analyst Description: Beige, Homogeneous, Non-Fibrous, Joint Compound			
Asbestos Types:			
Other Material: Non-fibrous 100 %			

See Reporting notes on last page

PLM Bulk Asbestos Report

SBCUSD; Marshall E.S

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
035	908061178-35.1	*No*	NAD (by CVES) by Paola Ducoing on 06/16/08
Location: Drywall / Joint Compound / Bldg. D / D-1			
Analyst Description: White/Brown, Heterogeneous, Fibrous, Drywall			
Asbestos Types:			
Other Material: Cellulose 5 %, Non-fibrous 95 %			
035	908061178-35.2	*No*	NAD (by CVES) by Paola Ducoing on 06/16/08
Location: Drywall / Joint Compound / Bldg. D / D-1			
Analyst Description: Beige, Homogeneous, Non-Fibrous, Joint Compound			
Asbestos Types:			
Other Material: Non-fibrous 100 %			
036	908061178-36	*No*	NAD (by CVES) by Paola Ducoing on 06/16/08
Location: Plaster / Bldg. D / D-1			
Analyst Description: Off-White, Heterogeneous, Non-Fibrous, Cementitious, Plaster			
Asbestos Types:			
Other Material: Non-fibrous 100 %			
037	908061178-37L1	*No*	NAD (by CVES) by Paola Ducoing on 06/16/08
Location: 12" X 12" Beige VFT W/Dk Specs / Bldg. C / C-2			
Analyst Description: Beige, Homogeneous, Non-Fibrous, Floor Tile			
Asbestos Types:			
Other Material: Non-fibrous 100 %			
037	908061178-37L2	*No*	NAD (by CVES) by Paola Ducoing on 06/16/08
Location: 12" X 12" Beige VFT W/Dk Specs / Bldg. C / C-2			
Analyst Description: Black/Yellow, Heterogeneous, Non-Fibrous, Mastic			
Asbestos Types:			
Other Material: Cellulose 3 %, Non-fibrous 97 %			
038	908061178-38L1	*No*	NAD (by CVES) by Paola Ducoing on 06/16/08
Location: Brown Base Cove / Bldg. C / C-2			
Analyst Description: Brown, Homogeneous, Non-Fibrous, Basecove			
Asbestos Types:			
Other Material: Non-fibrous 100 %			

See Reporting notes on last page

PLM Bulk Asbestos Report

SBCUSD; Marshall E.S

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
038	908061178-38L2	*No*	NAD (by CVES) by Paola Ducoing on 06/16/08
Location: Brown Base Cove / Bldg. C / C-2			
Analyst Description: Cream, Homogeneous, Non-Fibrous, Mastic			
Asbestos Types:			
Other Material: Non-fibrous 100 %			
039	908061178-39.1	*No*	NAD (by CVES) by Paola Ducoing on 06/16/08
Location: Drywall / Joint Compound / Bldg. C / C-2			
Analyst Description: White, Homogeneous, Non-Fibrous, Drywall			
Asbestos Types:			
Other Material: Cellulose 5 %, Non-fibrous 95 %			
039	908061178-39.2	*No*	NAD (by CVES) by Paola Ducoing on 06/16/08
Location: Drywall / Joint Compound / Bldg. C / C-2			
Analyst Description: Beige, Homogeneous, Non-Fibrous, Joint Compound			
Asbestos Types:			
Other Material: Non-fibrous 100 %			
040	908061178-40	*No*	NAD (by CVES) by Paola Ducoing on 06/16/08
Location: Plaster / Bldg. C / C-2			
Analyst Description: Beige, Heterogeneous, Non-Fibrous, Cementitious, Plaster			
Asbestos Types:			
Other Material: Non-fibrous 100 %			
041	908061178-41	*No*	NAD (by CVES) by Paola Ducoing on 06/16/08
Location: Carpet Glue / Bldg. C / C-2			
Analyst Description: Yellow/White, Heterogeneous, Fibrous, Carpet Mastic			
Asbestos Types:			
Other Material: Synthetic fibers 10 %, Non-fibrous 90 %			
042	908061178-42	*No*	NAD (by CVES) by Paola Ducoing on 06/16/08
Location: Stucco / Bldg. C Exterior (South - West)			
nalyst Description: Grey/Beige, Heterogeneous, Non-Fibrous, Cementitious, Stucco			
Asbestos Types:			
Other Material: Non-fibrous 100 %			

See Reporting notes on last page

PLM Bulk Asbestos Report

SBCUSD; Marshall E.S

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
043	908061178-43	*No*	NAD (by CVES) by Paola Ducoing on 06/16/08
Location: 2' X 4' Ceiling Panel / Bldg. C / C-1			
Analyst Description: White/Grey, Heterogeneous, Fibrous, Ceiling Tile			
Asbestos Types:			
Other Material: Cellulose 40 %, Mineral Wool 25 %, Non-fibrous 35 %			
044	908061178-44.1	*No*	NAD (by CVES) by Paola Ducoing on 06/16/08
Location: Drywall / Joint Compound / Bldg. C / C-1			
Analyst Description: White, Homogeneous, Non-Fibrous, Drywall			
Asbestos Types:			
Other Material: Cellulose 3 %, Non-fibrous 97 %			
044	908061178-44.2	*No*	NAD (by CVES) by Paola Ducoing on 06/16/08
Location: Drywall / Joint Compound / Bldg. C / C-1			
Analyst Description: White, Homogeneous, Non-Fibrous, Joint Compound			
Asbestos Types:			
Other Material: Non-fibrous 100 %			
045	908061178-45	*No*	NAD (by CVES) by Paola Ducoing on 06/16/08
Location: Plaster / Bldg. C / C-1			
Analyst Description: Beige, Heterogeneous, Non-Fibrous, Cementitious, Plaster			
Asbestos Types:			
Other Material: Non-fibrous 100 %			
046	908061178-46	*No*	NAD (by CVES) by Paola Ducoing on 06/16/08
Location: Plaster / Bldg. C / Boy's Restroom			
Analyst Description: Beige, Heterogeneous, Non-Fibrous, Cementitious, Plaster			
Asbestos Types:			
Other Material: Non-fibrous 100 %			
047	908061178-47.1	*No*	NAD (by CVES) by Paola Ducoing on 06/16/08
Location: Drywall / Joint Compound / Bldg. C / Boy's Restroom			
Analyst Description: White, Homogeneous, Non-Fibrous, Drywall			
Asbestos Types:			
Other Material: Cellulose 3 %, Non-fibrous 97 %			

See Reporting notes on last page

PLM Bulk Asbestos Report

SBCUSD; Marshall E.S

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
047	908061178-47.2	*No*	NAD (by CVES) by Paola Ducoing on 06/16/08
Location: Drywall / Joint Compound / Bldg. C / Boy's Restroom			
Analyst Description: White, Homogeneous, Non-Fibrous, Joint Compound			
Asbestos Types:			
Other Material: Non-fibrous 100 %			
048	908061178-48	*No*	NAD (by CVES) by Paola Ducoing on 06/16/08
Location: Plaster / Bldg. B / B-1			
Analyst Description: Beige, Heterogeneous, Non-Fibrous, Cementitious, Plaster			
Asbestos Types:			
Other Material: Non-fibrous 100 %			
049	908061178-49L1	*No*	NAD (by CVES) by Paola Ducoing on 06/16/08
Location: Basecove (Brown) / Bldg. B / B-1			
Analyst Description: Brown, Homogeneous, Non-Fibrous, Basecove			
Asbestos Types:			
Other Material: Non-fibrous 100 %			
049	908061178-49L2	*No*	NAD (by CVES) by Paola Ducoing on 06/16/08
Location: Basecove (Brown) / Bldg. B / B-1			
Analyst Description: Cream, Homogeneous, Non-Fibrous, Mastic			
Asbestos Types:			
Other Material: Non-fibrous 100 %			
050	908061178-50	*No*	NAD (by CVES) by Paola Ducoing on 06/16/08
Location: 2' X 4' Ceiling Panel / Bldg. B / B-1			
Analyst Description: White/Grey, Heterogeneous, Fibrous, Ceiling Tile			
Asbestos Types:			
Other Material: Cellulose 40 %, Mineral Wool 25 %, Non-fibrous 35 %			
051	908061178-51	*No*	NAD (by CVES) by Paola Ducoing on 06/16/08
Location: Carpet Glue / Bldg. B / B-1			
nalyst Description: Yellow/Black, Heterogeneous, Non-Fibrous, Carpet Mastic			
Asbestos Types:			
Other Material: Non-fibrous 100 %			

See Reporting notes on last page

PLM Bulk Asbestos Report

SBCUSD; Marshall E.S

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
052	908061178-52	*No*	NAD (by CVES) by Paola Ducoing on 06/16/08
Location: 12" X 12" Beige VFT / Bldg. B / B-1			
Analyst Description: Beige, Homogeneous, Non-Fibrous, Floor Tile			
Asbestos Types:			
Other Material: Non-fibrous 100 %			
053	908061178-53	*No*	NAD (by CVES) by Paola Ducoing on 06/16/08
Location: Stucco / Bldg. B / Exterior (By B-1)			
Analyst Description: Grey/Yellow, Heterogeneous, Non-Fibrous, Cementitious, Stucco			
Asbestos Types:			
Other Material: Non-fibrous 100 %			
054	908061178-54	*No*	NAD (by CVES) by Paola Ducoing on 06/16/08
Location: Plaster / Bldg. B / B- 2			
Analyst Description: Beige, Heterogeneous, Non-Fibrous, Plaster			
Asbestos Types:			
Other Material: Non-fibrous 100 %			
055	908061178-55	*No*	NAD (by CVES) by Paola Ducoing on 06/16/08
Location: Plaster / Bldg. B / B-3			
Analyst Description: Beige, Heterogeneous, Non-Fibrous, Cementitious, Plaster			
Asbestos Types:			
Other Material: Non-fibrous 100 %			
056	908061178-56.1	*No*	NAD (by CVES) by Paola Ducoing on 06/16/08
Location: Drywall / Joint Compound / Bldg. B / Custodian Rm. / Storage			
Analyst Description: White/Brown, Heterogeneous, Fibrous, Drywall			
Asbestos Types:			
Other Material: Cellulose 15 %, Non-fibrous 85 %			
056	908061178-56.2	*No*	NAD (by CVES) by Paola Ducoing on 06/16/08
Location: Drywall / Joint Compound / Bldg. B / Custodian Rm. / Storage			
Analyst Description: White, Homogeneous, Non-Fibrous, Joint Compound			
Asbestos Types:			
Other Material: Non-fibrous 100 %			

See Reporting notes on last page

PLM Bulk Asbestos Report

SBCUSD; Marshall E.S

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
057	908061178-57.1	*No*	NAD (by CVES) by Paola Ducoing on 06/16/08
Location: Drywall / Joint Compound / Bldg. B / Custodian Rm. / Storage			
Analyst Description: White, Homogeneous, Non-Fibrous, Drywall **Asbestos Types:** **Other Material:** Cellulose 3 %, Non-fibrous 97 %			
057	908061178-57.2	*No*	NAD (by CVES) by Paola Ducoing on 06/16/08
Location: Drywall / Joint Compound / Bldg. B / Custodian Rm. / Storage			
Analyst Description: White, Homogeneous, Non-Fibrous, Joint Compound **Asbestos Types:** **Other Material:** Non-fibrous 100 %			
058	908061178-58.1	*No*	NAD (by CVES) by Paola Ducoing on 06/16/08
Location: Drywall / Joint Compound / Bldg. B / Custodian Rm. / Storage			
Analyst Description: White, Homogeneous, Non-Fibrous, Drywall **Asbestos Types:** **Other Material:** Cellulose 3 %, Non-fibrous 97 %			
058	908061178-58.2	*No*	NAD (by CVES) by Paola Ducoing on 06/16/08
Location: Drywall / Joint Compound / Bldg. B / Custodian Rm. / Storage			
Analyst Description: White, Homogeneous, Non-Fibrous, Joint Compound **Asbestos Types:** **Other Material:** Non-fibrous 100 %			
059	908061178-59L1	*No*	NAD (by CVES) by Paola Ducoing on 06/16/08
Location: 12" X 12" Off - Wht. VFT / Bldg. Admin / Mu			
Analyst Description: Beige, Homogeneous, Non-Fibrous, Floor Tile **Asbestos Types:** **Other Material:** Non-fibrous 100 %			
059	908061178-59L2	*No*	NAD (by CVES) by Paola Ducoing on 06/16/08
Location: 12" X 12" Off - Wht. VFT / Bldg. Admin / Mu			
Analyst Description: Black, Homogeneous, Non-Fibrous, Mastic **Asbestos Types:** **Other Material:** Cellulose 8 %, Non-fibrous 92 %			

See Reporting notes on last page

PLM Bulk Asbestos Report

SBCUSD; Marshall E.S

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
060	908061178-60.1	*No*	NAD (by CVES) by Paola Ducoing on 06/16/08
Location: Drywall / Joint Compound / Admin. / Mu (Ceiling I-Beam)			
Analyst Description: White/Brown, Heterogeneous, Fibrous, Drywall			
Asbestos Types:			
Other Material: Cellulose 15 %, Non-fibrous 85 %			
060	908061178-60.2	*No*	NAD (by CVES) by Paola Ducoing on 06/16/08
Location: Drywall / Joint Compound / Admin. / Mu (Ceiling I-Beam)			
Analyst Description: Beige, Homogeneous, Non-Fibrous, Joint Compound			
Asbestos Types:			
Other Material: Non-fibrous 100 %			
061	908061178-61	*No*	NAD (by CVES) by Paola Ducoing on 06/16/08
Location: Plaster / Admin. / Mu (Ceiling I-Beam)			
Analyst Description: Beige, Heterogeneous, Non-Fibrous, Cementitious, Plaster			
Asbestos Types:			
Other Material: Non-fibrous 100 %			
062	908061178-62L1	*No*	NAD (by CVES) by Paola Ducoing on 06/16/08
Location: Base Cove (Brown) / Admin. / Mu (Ceiling I-Beam)			
Analyst Description: Brown, Homogeneous, Non-Fibrous, Basecove			
Asbestos Types:			
Other Material: Non-fibrous 100 %			
062	908061178-62L2	*No*	NAD (by CVES) by Paola Ducoing on 06/16/08
Location: Base Cove (Brown) / Admin. / Mu (Ceiling I-Beam)			
Analyst Description: Dark Brown, Homogeneous, Non-Fibrous, Mastic			
Asbestos Types:			
Other Material: Non-fibrous 100 %			
063	908061178-63	*No*	NAD (by CVES) by Paola Ducoing on 06/16/08
Location: 12" X 12" Ceilng Tile / Admin. / Kitchen			
nalyst Description: Grey, Heterogeneous, Fibrous, Ceiling Tile			
Asbestos Types:			
Other Material: Cellulose 40 %, Mineral Wool 25 %, Non-fibrous 35 %			

See Reporting notes on last page

PLM Bulk Asbestos Report

SBCUSD; Marshall E.S

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
064	908061178-64	*No*	NAD (by CVES) by Paola Ducoing on 06/16/08
Location: Ceiling Tile Mastic / Admin. Kitchen			
Analyst Description: Dark Brown, Homogeneous, Non-Fibrous, Ceiling Tile Mastic			
Asbestos Types:			
Other Material: Non-fibrous 100 %			
065	908061178-65L1	*No*	NAD (by CVES) by Paola Ducoing on 06/16/08
Location: Base Cove (Brown) / Admin / Library			
Analyst Description: Brown, Homogeneous, Non-Fibrous, Basecove			
Asbestos Types:			
Other Material: Non-fibrous 100 %			
065	908061178-65L2	*No*	NAD (by CVES) by Paola Ducoing on 06/16/08
Location: Base Cove (Brown) / Admin / Library			
Analyst Description: Dark Brown, Homogeneous, Non-Fibrous, Mastic			
Asbestos Types:			
Other Material: Non-fibrous 100 %			
066	908061178-66	*No*	NAD (by CVES) by Paola Ducoing on 06/16/08
Location: Plaster / Admin / Library			
Analyst Description: Beige, Heterogeneous, Non-Fibrous, Cementitious, Plaster			
Asbestos Types:			
Other Material: Non-fibrous 100 %			
067	908061178-67	*No*	NAD (by CVES) by Paola Ducoing on 06/16/08
Location: 2' X 4' Ceilng Panel / Admin / Library			
Analyst Description: White/Grey, Heterogeneous, Fibrous, Ceiling Tile			
Asbestos Types:			
Other Material: Cellulose 40 %, Mineral Wool 25 %, Non-fibrous 35 %			
068	908061178-68	*No*	NAD (by CVES) by Paola Ducoing on 06/16/08
Location: Carpet Glue / Admin / Library			
Analyst Description: Yellow, Heterogeneous, Fibrous, Carpet Mastic			
Asbestos Types:			
Other Material: Synthetic fibers 6 %, Non-fibrous 94 %			

See Reporting notes on last page

PLM Bulk Asbestos Report

SBCUSD; Marshall E.S

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
069	908061178-69	*No*	NAD (by CVES) by Paola Ducoing on 06/16/08
Location: 12" X 12" Ceiling Tile / Admin / Library			
Analyst Description: Tan, Heterogeneous, Fibrous, Ceiling Tile			
Asbestos Types:			
Other Material: Cellulose 95 %, Non-fibrous 5 %			
070	908061178-70	*No*	NAD (by CVES) by Paola Ducoing on 06/16/08
Location: Ceiling Tile Mastic / Admin / Library			
Analyst Description: Dark Brown, Heterogeneous, Fibrous, Ceiling Tile Mastic			
Asbestos Types:			
Other Material: Cellulose 8 %, Non-fibrous 92 %			
071	908061178-71	*Yes*	2 % (by CVES) by Paola Ducoing on 06/16/08
Location: Drywall / Joint Compound / Admin / Staff Rm.			
Analyst Description: Beige, Homogeneous, Non-Fibrous, Joint Compound			
Asbestos Types: Chrysotile 2.0 %			
Other Material: Non-fibrous 98 %			
Comment: Drywall not found in sample.			
072	908061178-72.1	*No*	NAD (by CVES) by Paola Ducoing on 06/16/08
Location: Drywall / Joint Compound / Admin / Main Office			
Analyst Description: Off-White/Brown, Heterogeneous, Fibrous, Drywall			
Asbestos Types:			
Other Material: Cellulose 15 %, Non-fibrous 85 %			
072	908061178-72.2	*Yes*	2 % (by CVES) by Paola Ducoing on 06/16/08
Location: Drywall / Joint Compound / Admin / Main Office			
Analyst Description: Beige, Homogeneous, Non-Fibrous, Joint Compound			
Asbestos Types: Chrysotile 2.0 %			
Other Material: Non-fibrous 98 %			

See Reporting notes on last page

PLM Bulk Asbestos Report

SBCUSD; Marshall E.S

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
073	908061178-73	*No*	NAD (by CVES) by Paola Ducoing on 06/16/08
Location: 12" X 12" Wht VFT / Admin / Staff Rm.			
Analyst Description: Off-White, Homogeneous, Non-Fibrous, Floor Tile **Asbestos Types:** **Other Material:** Non-fibrous 100 %			
074	908061178-74	*No*	NAD (by CVES) by Paola Ducoing on 06/16/08
Location: 12" X 12" Tan VFT / Admin / Nurse's Rm			
Analyst Description: Tan, Homogeneous, Non-Fibrous, Floor Tile **Asbestos Types:** **Other Material:** Non-fibrous 100 %			
075	908061178-75	*No*	NAD (by CVES) by Paola Ducoing on 06/16/08
Location: Plaster / Admin / Kitchen			
Analyst Description: Beige, Heterogeneous, Non-Fibrous, Cementitious, Plaster **Asbestos Types:** **Other Material:** Non-fibrous 100 %			
076	908061178-76	*No*	NAD (by CVES) by Paola Ducoing on 06/16/08
Location: Roof Core / Admin / Exterior (S/W Corner)			
Analyst Description: Black, Heterogeneous, Non-Fibrous, Roofing **Asbestos Types:** **Other Material:** Synthetic fibers 8 %, Non-fibrous 92 %			
077	908061178-77	*Yes*	4 % (by CVES) by Paola Ducoing on 06/16/08
Location: Flashing / Admin / Exterior (South Center)			
Analyst Description: Black/Grey/Brown, Heterogeneous, Fibrous, Flashing **Asbestos Types:** Chrysotile 4.0 % **Other Material:** Fibrous glass 18 %, Non-fibrous 78 %			
078	908061178-78	*Yes*	6 % (by CVES) by Paola Ducoing on 06/16/08
Location: Penetration Mastic / Admin / Exterior			
Analyst Description: Black/Grey, Homogeneous, Non-Fibrous, Penetration Mastic **Asbestos Types:** Chrysotile 6.0 % **Other Material:** Non-fibrous 94 %			

See Reporting notes on last page

PLM Bulk Asbestos Report

SBCUSD; Marshall E.S

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
079	908061178-79	*Yes*	4 % (by CVES) by Paola Ducoing on 06/16/08

Location: Roof Core (Gravel) / Admin / Exterior (South - West Corner)

Analyst Description: Black, Heterogeneous, Non-Fibrous, Roofing
Asbestos Types: Chrysotile 4.0 %
Other Material: Fibrous glass 18 %, Non-fibrous 78 %

080	908061178-80	*Yes*	8 % (by CVES) by Paola Ducoing on 06/16/08

Location: Roof Composite / Admin / (South - Center)

Analyst Description: Black, Heterogeneous, Fibrous, Roofing
Asbestos Types: Chrysotile 8.0 %
Other Material: Cellulose 12 %, Fibrous glass 10 %, Non-fibrous 70 %

081	908061178-81	*No*	NAD (by CVES) by Paola Ducoing on 06/16/08

Location: Flashing Building B / Admin / Exterior (West - Center)

Analyst Description: Black, Heterogeneous, Fibrous, Flashing
Asbestos Types:
Other Material: Cellulose 3 %, Synthetic fibers 5 %, Non-fibrous 92 %

082	908061178-82	*Yes*	4 % (by CVES) by Paola Ducoing on 06/16/08

Location: Penetration Mastic / Admin / Exterior

Analyst Description: Black/Grey, Heterogeneous, Fibrous, Penetration Mastic
Asbestos Types: Chrysotile 4.0 %
Other Material: Fibrous glass 6 %, Non-fibrous 90 %

083	908061178-83	*No*	NAD (by CVES) by Paola Ducoing on 06/16/08

Location: Roof Core / Bldg. C / Exterior (North - East)

Analyst Description: Black, Heterogeneous, Fibrous, Roofing
Asbestos Types:
Other Material: Fibrous glass 18 %, Non-fibrous 82 %

084	908061178-84	*Yes*	4 % (by CVES) by Paola Ducoing on 06/16/08

Location: Penetration Mastic / Bldg. C / (North - East)

Analyst Description: Black/Grey, Heterogeneous, Non-Fibrous, Penetration Mastic
Asbestos Types: Chrysotile 4.0 %
Other Material: Cellulose 8 %, Non-fibrous 88 %

See Reporting notes on last page

PLM Bulk Asbestos Report

SBCUSD; Marshall E.S

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
085	908061178-85	*No*	NAD (by CVES) by Paola Ducoing on 06/16/08
Location: Flashing / Bldg. C / Exterior (North - West)			
Analyst Description: Black, Heterogeneous, Fibrous, Flashing			
Asbestos Types:			
Other Material: Fibrous glass 10 %, Synthetic fibers 8 %, Non-fibrous 82 %			
086	908061178-86	*Yes*	3 % (by CVES) by Paola Ducoing on 06/16/08
Location: Flashing / Bldg. D / Exterior (North - West)			
Analyst Description: Black, Heterogeneous, Fibrous, Flashing			
Asbestos Types: Chrysotile 3.0 %			
Other Material: Cellulose 8 %, Fibrous glass 5 %, Non-fibrous 84 %			
087	908061178-87	*No*	NAD (by CVES) by Paola Ducoing on 06/16/08
Location: Roof Core / Bldg. D / Exterior (North - West)			
Analyst Description: Black, Heterogeneous, Non-Fibrous, Roofing			
Asbestos Types:			
Other Material: Fibrous glass 18 %, Non-fibrous 82 %			
088	908061178-88	*Yes*	5 % (by CVES) by Paola Ducoing on 06/16/08
Location: Penetration Mastic / Bldg. D / Exterior (North - West)			
Analyst Description: Black/Grey, Homogeneous, Non-Fibrous, Penetration Mastic			
Asbestos Types: Chrysotile 5.0 %			
Other Material: Non-fibrous 95 %			
089	908061178-89	*No*	NAD (by CVES) by Paola Ducoing on 06/16/08
Location: Roof Core / Bldg. E / Exterior (North - West)			
Analyst Description: Black, Heterogeneous, Fibrous, Roofing			
Asbestos Types:			
Other Material: Fibrous glass 18 %, Non-fibrous 82 %			
090	908061178-90	*Yes*	3 % (by CVES) by Paola Ducoing on 06/16/08
Location: Penetration Mastic / Bldg. E / Exterior (North - West)			
Analyst Description: Black, Heterogeneous, Non-Fibrous, Penetration Mastic			
Asbestos Types: Chrysotile 3.0 %			
Other Material: Fibrous glass 5 %, Non-fibrous 92 %			

See Reporting notes on last page

PLM Bulk Asbestos Report

SBCUSD; Marshall E.S

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
091	908061178-91	*No*	NAD (by CVES) by Paola Ducoing on 06/16/08
Location: Roof Core / Bldg. F / Exterior (South - West)			
Analyst Description: Black, Heterogeneous, Fibrous, Roofing			
Asbestos Types:			
Other Material: Fibrous glass 18 %, Non-fibrous 82 %			
092	908061178-92	*Yes*	3 % (by CVES) by Paola Ducoing on 06/16/08
Location: Penetration Mastic / Bldg. F / Exterior (South - West)			
Analyst Description: Black/Silver, Homogeneous, Non-Fibrous, Penetration Mastic			
Asbestos Types: Chrysotile 3.0 %			
Other Material: Non-fibrous 97 %			

Reporting Notes:
Analyzed By: Paola Ducoing Paola D; Date Analyzed: 6/16/2008 6/16/08
*NAD = no asbestos detected; Detection Limit <1%; Reporting Limits: CVES = 1%, 400 Pt Ct = 0.25%, 1000 Pt Ct = 0.1%; NA = not analyzed; NA/PS = not analyzed / positive stop; NVA = No Visible Asbestos; PLM (polarized light microscopy) Bulk Asbestos Analysis by EPA 600/M4-82-020 per 40 CFR 763 (NVLAP Lab #200346-0, CA ELAP lab #2322); Note: PLM is not consistently reliable in detecting asbestos in floor coverings and similar NOB erials. TEM is currently the only method that can be used to determine if this material can be considered or treated as non-asbestos-containing in York State (also see EPA Advisory for floor tile, FR 59, 146, 38970, 8/1/94). NIST Accreditation requirements mandate that this report must not be reproduced except in full with the approval of the laboratory. This PLM report relates ONLY to the items tested.
Reviewed By: 6/17/08

908061178 -

PACIFIC ENVIRONMENTAL

Date:	6/3/08
Client:	SBCUSD
Site:	Marshall E.S.
Project No:	
Inspector(s):	D.T. / V.S.

ASBESTOS BULK SAMPLE FIELD LOG AND CHAIN OF CUSTODY

Sample Number	Material Sampled	Bld.	Sample Location	Condition
001	Carpet Glue	F	F-5	G
002	Brown Basecove			
003	12"x12" Beige VFT w/Dk Specs			
004	Drywall / Joint Compound		F-4	
005				
006			Copy Room / Storage	
007	2'x4' Ceiling Panel		Exterior Storage Closet	
008	Textured exterior Material		Exterior	
009	Carpet Glue		F-3	
010	2'x4' Ceiling Panel			
011	12"x12" Beige VFT w/Dk Specs			
012	Base Cove (Brown)			
013	Plaster		F-2	
014			F-3	
015				
016	Stucco		Exterior (by F-2)	D
017	Plaster	E	E-3	G
018	Brown Base Cove			
019	2'x4' Ceiling Panel			
020	12"x12" VFT Beige w/Dk Specs			
021	Carpet Glue w/residual Mastic			
022	Black Mast in HVAC Door		(HVAC Closet)	
023	Plaster		E2	
024				

Analytical Method: PLM

Turn Around Time: Standard

Please fax results to (714)776-3500 and mail to

Pacific Environmental Company
1475 S. State College Blvd., Suite 212
Anaheim, California 92806

CHAIN OF CUSTODY:

Name	Signature	Date/Time
David Tillema	[signature]	6/3/08

RECEIVED
JUN 11 2008 @ 1030
B. ARELLA

908061178 -

PACIFIC ENVIRONMENTAL

Date:	6/3/08
Client:	SBCUSD
Site:	Marshall
Project No:	
Inspector(s):	

ASBESTOS BULK SAMPLE FIELD LOG AND CHAIN OF CUSTODY

Sample Number	Material Sampled	Bld	Sample Location	Condition
025	Stucco	E	Exterior (by E-1)	D
026	Plaster	1	E-3	G
027	Carpet Glue	D	D-4	G
028	Drywall/Joint Compound	D	D-4	G
029	Plaster	D	D-3	1
030	Basecove	D	D-4	1
031	2'x4' Ceiling Panel	D	D-4	G
032	Stucco	D	Exterior (by D-3)	1
033	Plaster	D	D-2	1
034	Drywall / Joint Compound.	D	1	G
035	1	1	D-1	1
036	Plaster	1	1	1
037	12"x12" Beige VFT w/Dk specs	C	C-2	G
038	Brown Base cove	1	1	1
039	Drywall / Joint Compound.	1	1	1
040	Plaster	1	1	1
041	Carpet Glue	1	1	1
042	Stucco	1	Exterior (South-West)	D
043	2'x4' Ceiling Panel	1	C-1	G
044	Drywall / Joint Compound	1	1	1
045	Plaster	1	1	1
046	1	1	Boy's Restroom	G
047	Drywall / Joint Compound.	1	1	1
048	Plaster	B	B-1	G

Analytical Method: PLM

Turn Around Time: Standard

Please fax results to (714)776-3500 and mail to

Pacific Environmental Company
1475 S. State College Blvd., Suite 212
Anaheim, California 92806

CHAIN OF CUSTODY:

Name	Signature	Date/Time
David Tillema	[signature]	6/3/08

RECEIVED
JUN 11 2008 @ 1030
B. ARELLANO

908061178

PACIFIC ENVIRONMENTAL

Date:	6/3/08
Client:	SBCUSD
Site:	Marshall E.S.
Project No:	
Inspector(s):	D.T.

ASBESTOS BULK SAMPLE FIELD LOG AND CHAIN OF CUSTODY

Sample Number	Material Sampled	Bld.	Sample Location	Condition
049	Basecove (Brown)	B	B-1	G
050	2'x4' Ceiling Panel	↓	↓	↓
051	Carpet Glue	↓	↓	↓
052	~~Plaster~~ 12"x12" Beige VFT	↓	↓	↓
053	Stucco	↓	Exterior (By B-1)	G
054	Plaster	↓	B-2	G
055	↓	↓	B-3	G
056	Drywall / Joint Compound	↓	Custodian Rm. / Storage	G
057	↓	↓	↓	↓
058	↓	↓	↓	↓
059	12"x12" off-wht. VFT	Admin	MU	G
060	Drywall / Joint Compound	↓	(Ceiling I-Beam)	↓
061	Plaster	↓	↓	G
062	Basecove (Brown)	↓	↓	↓
063	12"x12" Ceiling Tile	↓	Kitchen	↓
064	Ceiling Tile Mastic	↓	↓	↓
065	Basecove (Brown)	↓	Library	G
066	Plaster	↓	Library	↓
067	2'x4' Ceiling Panel	↓	Library	G
068	Carpet Glue	↓	Library	G
069	12"x12" Ceiling Tile	↓	Library	G
070	Ceiling Tile Mastic	↓	↓	↓
071	Drywall / Joint Compound	↓	Staff Rm.	G
072	↓	↓	Main Office	↓

Analytical Method: PLM

Turn Around Time: Standard

Please fax results to (714)776-3500 and mail to

Pacific Environmental Company
1475 S. State College Blvd., Suite 212
Anaheim, California 92806

CHAIN OF CUSTODY:

Name	Signature	Date/Time
David Tillems	[signature]	6/3/08

RECEIVED
JUN 11 2008
1030
B. ARELLANO

PACIFIC ENVIRONMENTAL

Date:	6/3/08
Client:	SBCUSD
Site:	Marshall
Project No:	
Inspector(s):	

ASBESTOS BULK SAMPLE FIELD LOG AND CHAIN OF CUSTODY

Sample Number	Material Sampled	Bld.	Sample Location	Condition
073	12"x12" Wht VFT	Admin.	Staff Rm.	G
074	12"x12" Tan VFT		Nurse's Rm.	
075	Plaster		Kitchen	
076	Roof Core	Admin	Exterior (S/W Corner)	G
077	Flashing		(South Center)	
078	Penetration Mastic			G
079	Roof Core (Gravel)		(South-West Corner)	G
080	Roof Composite		(South-Center)	G
081	Flashing Building B		(West-Center)	
082	Penetration Mastic			G
083	Roof-Core	C	(North-East)	G
084	Penetration Mastic			
085	Flashing		(North-West)	
086		D		G
087	Roof Core			G
088	Penetration Mastic	D	(North-West)	
089	Roof Core	E		
090	Penetration Mastic			
091	Roof Core	F	(South-West)	G
092	Penetration Mastic			

Analytical Method: PLM

Turn Around Time: Standard

Please fax results to (714)776-3500 and mail to

Pacific Environmental Company
1475 S. State College Blvd., Suite 212
Anaheim, California 92806

CHAIN OF CUSTODY:

Name	Signature	Date/Time
David Tillema	[signature]	6/3/08

RECEIVED
JUN 1 1 2008 @ 1030
B. ARELLANO

Appendix D

XRF Sampling Results

FIELD DA PORT

PROJECT NAME: San Bernardino City Unified School District: Marshall Elementary School

PROJECT NO.: 08169

Building	Area	Component	Location	Substrate	Condition	Color	Pb(mg/cm2)	Results
Administration	Exterior	Wall	C	Plaster	Intact	Beige	0.0	Negative
Administration	Exterior	Wall	B	Stucco	Intact	Beige	0.0	Negative
Administration	**Exterior**	**Door**	**C**	**Wood**	**Intact**	**Brown**	**2.2**	**Positive**
Administration	**Exterior**	**Door Frame**	**C**	**Wood**	**Intact**	**Brown**	**4.8**	**Positive**
Administration	**Exterior**	**Window Frame**	**C**	**Metal**	**Intact**	**Brown**	**4.2**	**Positive**
Administration	**Exterior**	**Catwalk Joists**	**C**	**Metal**	**Intact**	**White**	**2.2**	**Positive**
Administration	Exterior	Catwalk Ceiling	C	Metal	Defective	White	0.0	Negative
Administration	**Exterior**	**Support Column**	**C**	**Metal**	**Defective**	**Brown**	**1.4**	**Positive**
Administration	**Exterior**	**Eaves**	**B**	**Metal**	**Intact**	**Beige**	**1.4**	**Positive**
Administration	**Exterior**	**Fascia**	**B**	**Metal**	**Intact**	**Beige**	**2.2**	**Positive**
Administration	**Exterior**	**Joists**	**B**	**Metal**	**Intact**	**Beige**	**2.5**	**Positive**
Building B1-B3	Exterior	Wall	A	Plaster	Intact	Beige	0.1	Negative
Building B1-B3	Exterior	Wall	B	Plaster	Intact	Beige	0.0	Negative
Building B1-B3	Exterior	Wall	C	Plaster	Intact	Beige	0.0	Negative
Building B1-B3	Exterior	Wall	D	Plaster	Intact	Beige	0.2	Negative
Building B1-B3	Exterior	Door	C	Metal	Intact	Brown	0.2	Negative
Building B1-B3	Exterior	Support Column	C	Metal	Intact	Brown	0.3	Negative
Building B1-B3	Exterior	Door Frame	C	Metal	Intact	Brown	0.1	Negative
Building B1-B3	Exterior	Porch Ceiling	C	Metal	Intact	White	0.0	Negative
Building B1-B3	Exterior	Downspout	C	Metal	Intact	Brown	0.0	Negative
Building C	Exterior	Wall	A	Plaster	Intact	Beige	0.2	Negative
Building C	Exterior	Wall	B	Plaster	Intact	Beige	0.0	Negative
Building C	Exterior	Wall	C	Plaster	Intact	Beige	0.0	Negative
Building C	Exterior	Wall	D	Plaster	Intact	Beige	0.1	Negative
Building C	Exterior	Door	B	Metal	Intact	Brown	0.1	Negative
Building C	Exterior	Door Frame	B	Metal	Intact	Brown	0.1	Negative
Building C	Exterior	Support Column	B	Wood	Intact	Brown	0.0	Negative
Building C	**Exterior**	**Support Beam**	**B**	**Wood**	**Intact**	**White**	**1.8**	**Positive**
Building C	**Exterior**	**Eaves**	**B**	**Wood**	**Intact**	**White**	**2.1**	**Positive**
Building C	**Exterior**	**Fascia**	**B**	**Wood**	**Intact**	**White**	**2.3**	**Positive**
Building C	**Exterior**	**Joists**	**B**	**Wood**	**Intact**	**White**	**2.0**	**Positive**
Building C	Exterior	Porch Ceiling	B	Wood	Intact	White	0.0	Negative
Building D1-D3	Exterior	Wall	A	Stucco	Intact	Beige	0.0	Negative
Building D1-D3	Exterior	Wall	B	Stucco	Intact	Beige	0.0	Negative
Building D1-D3	Exterior	Wall	C	Stucco	Intact	Beige	0.1	Negative

The HUD/EPA action level for lead-based paint is 1.0 mg/cm2.
Negative readings are below LOD for XRF

FIELD DA PORT

PROJECT NAME: San Bernardino City Unified School District: Marshall Elementary School

PROJECT NO.: 08169

Building	Area	Component	Location	Substrate	Condition	Color	Pb(mg/cm2)	Results
Building D1-D3	Exterior	Wall	D	Stucco	Intact	Beige	0.1	Negative
Building D1-D3	Exterior	Door	B	Metal	Intact	Brown	0.0	Negative
Building D1-D3	Exterior	Door Frame	B	Metal	Intact	Brown	0.1	Negative
Building D1-D3	**Exterior**	**Catwalk Joists**	**C**	**Wood**	**Intact**	**White**	**1.2**	**Positive**
Building D1-D3	**Exterior**	**Catwalk Eaves**	**C**	**Wood**	**Intact**	**White**	**1.4**	**Positive**
Building D1-D3	**Exterior**	**Eaves**	**D**	**Wood**	**Intact**	**White**	**2.1**	**Positive**
Building D1-D3	**Exterior**	**Fascia**	**D**	**Wood**	**Intact**	**White**	**2.0**	**Positive**
Building D1-D3	**Exterior**	**Joists**	**D**	**Wood**	**Intact**	**White**	**2.0**	**Positive**
Building E1-E3	Exterior	Wall	A	Stucco	Intact	Beige	0.1	Negative
Building E1-E3	Exterior	Wall	B	Stucco	Intact	Beige	0.0	Negative
Building E1-E3	Exterior	Wall	C	Stucco	Intact	Beige	0.0	Negative
Building E1-E3	Exterior	Wall	D	Stucco	Intact	Beige	0.0	Negative
Building E1-E3	Exterior	Door	B	Metal	Intact	Brown	0.1	Negative
Building E1-E3	Exterior	Door Frame	B	Metal	Intact	Brown	0.0	Negative
Building E1-E3	**Exterior**	**Louvers**	**B**	**Metal**	**Defective**	**White**	**2.1**	**Positive**
Building E1-E3	**Exterior**	**Eaves**	**B**	**Wood**	**Intact**	**White**	**1.3**	**Positive**
Building E1-E3	**Exterior**	**Fascia**	**B**	**Metal**	**Defective**	**Brown**	**2.5**	**Positive**
Building E1-E3	**Exterior**	**Joists**	**B**	**Wood**	**Intact**	**White**	**1.3**	**Positive**
Building E1-E3	**Exterior**	**Downspout**	**D**	**Metal**	**Intact**	**Beige**	**1.4**	**Positive**
Building F1-F3	Exterior	Wall	A	Stucco	Intact	Beige	0.1	Negative
Building F1-F3	Exterior	Wall	B	Stucco	Intact	Beige	0.0	Negative
Building F1-F3	Exterior	Wall	C	Stucco	Intact	Beige	0.0	Negative
Building F1-F3	Exterior	Wall	D	Stucco	Intact	Beige	0.0	Negative
Building F1-F3	Exterior	Door	B	Metal	Intact	Brown	0.1	Negative
Building F1-F3	Exterior	Door Frame	B	Metal	Intact	Brown	0.3	Negative
Building F1-F3	**Exterior**	**Support Column**	**B**	**Metal**	**Intact**	**White**	**1.2**	**Positive**
Building F1-F3	Exterior	Support Beam	B	Metal	Intact	White	0.3	Negative
Building F1-F3	Exterior	Catwalk Roof	B	Metal	Defective	White	0.3	Negative
Building F1-F3	Exterior	Eaves	C	Metal	Intact	White	0.1	Negative
Building F1-F3	Exterior	Fascia	C	Metal	Intact	Brown	0.2	Negative
Building F1-F3	Exterior	Joists	C	Metal	Intact	White	0.0	Negative
Building F1-F3	Exterior	Porch Railings	C	Metal	Intact	White	0.3	Negative
Building F4-F5	Exterior	Wall	A	Stucco	Intact	Beige	0.2	Negative
Building F4-F5	Exterior	Wall	B	Stucco	Intact	Beige	0.1	Negative
Building F4-F5	Exterior	Wall	C	Stucco	Intact	Beige	0.2	Negative

The HUD/EPA action level for lead-based paint is 1.0 mg/cm2.
Negative readings are below LOD for XRF

FIELD DA PORT

PROJECT NAME: San Bernardino City Unified School District: Marshall Elementary School

PROJECT NO.: 08169

Building	Area	Component	Location	Substrate	Condition	Color	Pb(mg/cm2)	Results
Building F4-F5	Exterior	Wall	D	Stucco	Intact	Beige	0.0	Negative
Building F4-F5	Exterior	Door	B	Metal	Intact	Brown	0.4	Negative
Building F4-F5	Exterior	Door Frame	B	Metal	Intact	Brown	0.5	Negative
Building F4-F5	Exterior	Support Beam	B	Wood	Intact	White	0.3	Negative
Building F4-F5	Exterior	Fascia	A	Metal	Defective	Brown	0.6	Negative
Building F4-F5	Exterior	Joists	B	Metal	Intact	White	0.1	Negative
Building F4-F5	Exterior	Porch Ceiling	B	Metal	Intact	White	0.0	Negative
Building F4-F5	Exterior	Roof Paint	-	Metal	Intact	Silver	0.3	Negative
Administration	Office Lobby	Wall	A	Plaster	Intact	White	0.0	Negative
Administration	Office Lobby	Wall	B	Plaster	Intact	White	0.1	Negative
Administration	Office Lobby	Wall	C	Plaster	Intact	White	0.2	Negative
Administration	Office Lobby	Wall	D	Plaster	Intact	White	0.1	Negative
Administration	Office Lobby	Support Column	-	Metal	Intact	White	0.0	Negative
Administration	Office Lobby	Door Frame	A	Wood	Intact	Blue	0.3	Negative
Administration	Nurse's Office	Wall	A	Plaster	Intact	White	0.0	Negative
Administration	Nurse's Office	Wall	B	Plaster	Intact	White	0.1	Negative
Administration	Nurse's Office	Wall	C	Plaster	Intact	White	0.3	Negative
Administration	Nurse's Office	Wall	D	Plaster	Intact	White	0.0	Negative
Administration	Nurse's Office	Door Frame	C	Wood	Intact	Blue	0.1	Negative
Administration	Nurse's Restroom	Wall	A	Plaster	Intact	White	0.1	Negative
Administration	Nurse's Restroom	Wall	B	Plaster	Intact	White	0.0	Negative
Administration	Nurse's Restroom	Wall	C	Plaster	Intact	White	0.0	Negative
Administration	Nurse's Restroom	Wall	D	Plaster	Intact	White	0.0	Negative
Administration	Nurse's Restroom	Porcelain Fixtures	D	Porcelain	Intact	White	0.0	Negative
Administration	Small Office	Wall	A	Plaster	Intact	White	0.0	Negative
Administration	Small Office	Wall	B	Plaster	Intact	White	0.1	Negative
Administration	Small Office	Wall	C	Plaster	Intact	White	0.2	Negative
Administration	Small Office	Wall	D	Plaster	Intact	White	0.0	Negative
Administration	Small Office	Door Frame	D	Wood	Intact	Blue	0.1	Negative
Administration	Teacher's Lounge	Wall	A	Plaster	Intact	White	0.0	Negative
Administration	Teacher's Lounge	Wall	B	Plaster	Intact	White	0.0	Negative
Administration	Teacher's Lounge	Wall	C	Plaster	Intact	White	0.1	Negative
Administration	Teacher's Lounge	Wall	D	Plaster	Intact	White	0.0	Negative
Administration	Teacher's Lounge	Door	C	Wood	Intact	Blue	0.0	Negative
Administration	Teacher's Lounge	Door Frame	C	Metal	Intact	Blue	0.1	Negative

The HUD/EPA action level for lead-based paint is 1.0 mg/cm2.
Negative readings are below LOD for XRF

FIELD DA PORT

PROJECT NAME: San Bernardino City Unified School District: Marshall Elementary School

PROJECT NO.: 08169

Building	Area	Component	Location	Substrate	Condition	Color	Pb(mg/cm2)	Results
Administration	Teacher's Lounge RR	Wall	A	Plaster	Intact	White	0.0	Negative
Administration	Teacher's Lounge RR	Wall	B	Plaster	Intact	White	0.0	Negative
Administration	Teacher's Lounge RR	Wall	C	Plaster	Intact	White	0.1	Negative
Administration	Teacher's Lounge RR	Wall	D	Plaster	Intact	White	0.0	Negative
Administration	Teacher's Lounge RR	Door	A	Wood	Intact	Blue	0.2	Negative
Administration	Teacher's Lounge RR	Door Frame	A	Wood	Intact	Blue	0.5	Negative
Administration	Teacher's Lounge RR	Sink	D	Porcelain	Intact	White	0.0	Negative
Administration	Teacher's Lounge RR	Toilet	D	Porcelain	Intact	White	0.0	Negative
Administration	Principal's Office	Wall	A	Plaster	Intact	White	0.0	Negative
Administration	Principal's Office	Wall	B	Plaster	Intact	White	0.1	Negative
Administration	Principal's Office	Wall	C	Plaster	Intact	White	0.1	Negative
Administration	Principal's Office	Wall	D	Plaster	Intact	White	0.0	Negative
Administration	Principal's Office	Door Frame	B	Wood	Intact	Blue	0.0	Negative
Administration	Principal's Office RR	Porcelain Fixtures	A	Plaster	Intact	White	0.0	Negative
Administration	M.U.	Wall	A	Brick	Intact	White	0.0	Negative
Administration	M.U.	Wall	B	Brick	Intact	White	0.0	Negative
Administration	M.U.	Wall	C	Brick	Intact	White	0.0	Negative
Administration	M.U.	Wall	D	Plaster	Intact	White	0.1	Negative
Administration	M.U.	Door	A	Metal	Intact	Peach	0.0	Negative
Administration	M.U.	Door Frame	A	Metal	Intact	Peach	0.5	Negative
Administration	M.U.	Drinking Fountain	D	Porcelain	Intact	White	0.0	Negative
Administration	Kitchen	Wall	A	Plaster	Intact	White	0.3	Negative
Administration	Kitchen	Wall	B	Plaster	Intact	White	0.0	Negative
Administration	Kitchen	Wall	C	Plaster	Intact	White	0.0	Negative
Administration	Kitchen	Wall	D	Plaster	Intact	White	0.2	Negative
Administration	Kitchen	Door	A	Metal	Intact	Peach	0.0	Negative
Administration	Kitchen	Door Frame	A	Metal	Intact	Peach	0.0	Negative
Administration	Kitchen	Floor Tile	-	Ceramic	Intact	Red	0.4	Negative
Building B1-B3	B1	Wall	A	Plaster	Intact	Beige	0.1	Negative
Building B1-B3	B1	Wall	B	Plaster	Intact	Beige	0.0	Negative
Building B1-B3	B1	Wall	C	Plaster	Intact	Beige	0.0	Negative
Building B1-B3	B1	Wall	D	Plaster	Intact	Beige	0.1	Negative
Building B1-B3	B1	Door	B	Metal	Intact	Brown	0.0	Negative
Building B1-B3	**B1**	**Frame**	**C**	**Wood**	**Intact**	**Beige**	**2.9**	**Positive**
Building B1-B3	B1	Door Frame	B	Metal	Intact	Peach	0.1	Negative

The HUD/EPA action level for lead-based paint is 1.0 mg/cm2.
Negative readings are below LOD for XRF

FIELD DA PORT

PROJECT NAME: San Bernardino City Unified School District: Marshall Elementary School

PROJECT NO.: 08169

Building	Area	Component	Location	Substrate	Condition	Color	Pb(mg/cm2)	Results
Building B1-B3	**B1**	**Window Frame**	**D**	**Metal**	**Intact**	**White**	**2.0**	**Positive**
Building B1-B3	B2	Wall	A	Plaster	Intact	Beige	0.1	Negative
Building B1-B3	B2	Wall	B	Plaster	Intact	Beige	0.1	Negative
Building B1-B3	B2	Wall	C	Plaster	Intact	Beige	0.1	Negative
Building B1-B3	B2	Wall	D	Plaster	Intact	Beige	0.1	Negative
Building B1-B3	B2	Door	B	Metal	Intact	Brown	0.0	Negative
Building B1-B3	B2	Door Frame	B	Metal	Intact	Peach	0.0	Negative
Building B1-B3	**B2**	**Window Frame**	**D**	**Wood**	**Intact**	**Beige**	**2.1**	**Positive**
Building B1-B3	B3	Wall	A	Plaster	Intact	Beige	0.1	Negative
Building B1-B3	B3	Wall	B	Plaster	Intact	Beige	0.0	Negative
Building B1-B3	B3	Wall	C	Plaster	Intact	Beige	0.0	Negative
Building B1-B3	B3	Wall	D	Plaster	Intact	Beige	0.2	Negative
Building B1-B3	B3	Door	D	Metal	Intact	Brown	0.1	Negative
Building B1-B3	B3	Door Frame	D	Metal	Intact	Peach	0.1	Negative
Building B1-B3	**B3**	**Window Frame**	**D**	**Wood**	**Intact**	**Beige**	**2.3**	**Positive**
Building C	C2	No Access						
Building C	**C1**	**Wall**	**A**	**Plaster**	**Intact**	**Beige**	**1.7**	**Positive**
Building C	**C1**	**Wall**	**B**	**Plaster**	**Intact**	**Beige**	**2.7**	**Positive**
Building C	**C1**	**Wall**	**C**	**Plaster**	**Intact**	**Beige**	**2.7**	**Positive**
Building C	**C1**	**Wall**	**D**	**Plaster**	**Intact**	**Beige**	**3.0**	**Positive**
Building C	C1	Door	B	Metal	Intact	Brown	0.4	Negative
Building C	C1	Door	D	Metal	Intact	Brown	0.4	Negative
Building C	C1	Door Frame	B	Metal	Intact	Peach	0.5	Negative
Building C	C1	Door Frame	D	Metal	Intact	Peach	0.4	Negative
Building C	**C1**	**Window Frame**	**D**	**Wood**	**Intact**	**Beige**	**1.8**	**Positive**
Building C	Boy's Restroom	Wall	C	Plaster	Intact	White	0.0	Negative
Building C	**Boy's Restroom**	**Door**	**B**	**Wood**	**Intact**	**Brown**	**1.2**	**Positive**
Building C	**Boy's Restroom**	**Door**	**C**	**Wood**	**Intact**	**Brown**	**1.2**	**Positive**
Building C	Boy's Restroom	Porcelain Fixtures	-	Porcelain	Intact	White	0.0	Negative
Building C	Boy's Restroom	Door Frame	B	Wood	Intact	Brown	0.0	Negative
Building C	**Boy's Restroom**	**Door Frame**	**C**	**Wood**	**Intact**	**White**	**1.3**	**Positive**
Building C	**Boy's Restroom**	**Door Frame**	**C**	**Wood**	**Intact**	**Brown**	**1.2**	**Positive**
Building C	Boy's Restroom	Wall Tile	A	Ceramic	Intact	Green/Gray	0.3	Negative
Building C	Girl's Restroom	Wall	C	Plaster	Intact	White	0.0	Negative
Building C	**Girl's Restroom**	**Door**	**B**	**Wood**	**Intact**	**Brown**	**1.2**	**Positive**

The HUD/EPA action level for lead-based paint is 1.0 mg/cm2.
Negative readings are below LOD for XRF

FIELD DA :PORT

PROJECT NAME: San Bernardino City Unified School District: Marshall Elementary School

PROJECT NO.: 08169

Building	Area	Component	Location	Substrate	Condition	Color	Pb(mg/cm2)	Results
Building C	**Girl's Restroom**	**Door**	**C**	**Wood**	**Intact**	**Brown**	**1.2**	**Positive**
Building C	Girl's Restroom	Porcelain Fixtures	-	Porcelain	Intact	White	0.0	Negative
Building C	Girl's Restroom	Door Frame	B	Wood	Intact	Brown	0.0	Negative
Building C	**Girl's Restroom**	**Door Frame**	**C**	**Wood**	**Intact**	**White**	**1.3**	**Positive**
Building C	**Girl's Restroom**	**Door Frame**	**C**	**Wood**	**Intact**	**Brown**	**1.2**	**Positive**
Building C	Girl's Restroom	Wall Tile	A	Ceramic	Intact	Red/White	0.3	Negative
Building E1-E3	E1	Wall	A	Plaster	Intact	Beige	0.1	Negative
Building E1-E3	E1	Wall	B	Plaster	Intact	Beige	0.0	Negative
Building E1-E3	E1	Wall	C	Plaster	Intact	Beige	0.0	Negative
Building E1-E3	E1	Wall	D	Plaster	Intact	Beige	0.0	Negative
Building E1-E3	E1	Door	D	Metal	Intact	Brown	0.5	Negative
Building E1-E3	E1	Door Frame	D	Metal	Intact	Peach	0.4	Negative
Building E1-E3	**E1**	**Window Frame**	**D**	**Wood**	**Intact**	**Beige**	**1.3**	**Positive**
Building E1-E3	E2	Wall	A	Plaster	Intact	Beige	0.1	Negative
Building E1-E3	E2	Wall	B	Plaster	Intact	Beige	0.2	Negative
Building E1-E3	E2	Wall	C	Plaster	Intact	Beige	0.0	Negative
Building E1-E3	E2	Wall	D	Plaster	Intact	Beige	0.1	Negative
Building E1-E3	E2	Door	D	Metal	Intact	Brown	0.5	Negative
Building E1-E3	E2	Door Frame	D	Metal	Intact	Peach	0.4	Negative
Building E1-E3	**E2**	**Window Frame**	**D**	**Wood**	**Intact**	**Beige**	**1.4**	**Positive**
Building E1-E3	E3	Wall	A	Plaster	Intact	Beige	0.1	Negative
Building E1-E3	E3	Wall	B	Plaster	Intact	Beige	0.0	Negative
Building E1-E3	E3	Wall	C	Plaster	Intact	Beige	0.1	Negative
Building E1-E3	E3	Wall	D	Plaster	Intact	Beige	0.0	Negative
Building E1-E3	E3	Door	D	Metal	Intact	Brown	0.2	Negative
Building E1-E3	E1	Door Frame	D	Metal	Intact	Peach	0.4	Negative
Building E1-E3	E3	**Window Frame**	**D**	**Wood**	**Intact**	**Beige**	**1.4**	**Positive**
Building D1-D3	Boy's Restroom	Wall	A	Plaster	Intact	Beige	0.2	Negative
Building D1-D3	Boy's Restroom	Wall	B	Plaster	Intact	Beige	0.1	Negative
Building D1-D3	Boy's Restroom	Wall	C	Plaster	Intact	Beige	0.2	Negative
Building D1-D3	Boy's Restroom	Wall	D	Plaster	Intact	Beige	0.2	Negative
Building D1-D3	Boy's Restroom	Door	B	Metal	Intact	Brown	0.0	Negative
Building D1-D3	Boy's Restroom	Door Frame	B	Metal	Intact	Brown	0.0	Negative
Building D1-D3	Boy's Restroom	Porcelain Fixtures	-	Porcelain	Intact	White	0.0	Negative
Building D1-D3	**Boy's Restroom**	**Wall Tile**	**-**	**Ceramic**	**Intact**	**Blue**	**16.1**	**Positive**

The HUD/EPA action level for lead-based paint is 1.0 mg/cm2.
Negative readings are below LOD for XRF

FIELD DA PORT

PROJECT NAME: San Bernardino City Unified School District: Marshall Elementary School

PROJECT NO.: 08169

Building	Area	Component	Location	Substrate	Condition	Color	Pb(mg/cm2)	Results
Building D1-D3	Boy's Restroom	Floor Tile	-	Ceramic	Intact	Tan	0.0	Negative
Building D1-D3	D1	Wall	A	Metal	Intact	Beige	0.1	Negative
Building D1-D3	D1	Wall	B	Metal	Intact	Beige	0.1	Negative
Building D1-D3	D1	Wall	C	Metal	Intact	Beige	0.0	Negative
Building D1-D3	D1	Wall	D	Metal	Intact	Beige	0.0	Negative
Building D1-D3	D1	Door	D	Metal	Intact	Brown	0.0	Negative
Building D1-D3	D1	Door Frame	D	Metal	Intact	Peach	0.0	Negative
Building D1-D3	**D1**	**Window Frame**	**D**	**Wood**	**Intact**	**Beige**	**1.5**	**Positive**
Building D1-D3	D2	Wall	A	Plaster	Intact	Beige	0.0	Negative
Building D1-D3	D2	Wall	B	Plaster	Intact	Beige	0.1	Negative
Building D1-D3	D2	Wall	C	Plaster	Intact	Beige	0.1	Negative
Building D1-D3	D2	Wall	D	Plaster	Intact	Beige	0.0	Negative
Building D1-D3	D2	Door	D	Metal	Intact	Brown	0.4	Negative
Building D1-D3	D2	Door Frame	D	Metal	Intact	Peach	0.0	Negative
Building D1-D3	**D2**	**Window Frame**	**D**	**Wood**	**Intact**	**Beige**	**1.5**	**Positive**
Building D1-D3	D3	Wall	A	Metal	Intact	Beige	0.0	Negative
Building D1-D3	D3	Wall	B	Metal	Intact	Beige	0.0	Negative
Building D1-D3	D3	Wall	C	Metal	Intact	Beige	0.1	Negative
Building D1-D3	D3	Wall	D	Metal	Intact	Beige	0.0	Negative
Building D1-D3	D3	Door	D	Metal	Intact	Brown	0.3	Negative
Building D1-D3	D3	Door Frame	D	Metal	Intact	Peach	0.1	Negative
Building D1-D3	**D3**	**Window Frame**	**D**	**Wood**	**Intact**	**Beige**	**1.6**	**Positive**
Building F	F2	Wall	A	Plaster	Intact	Yellow	0.4	Negative
Building F	F2	Wall	B	Plaster	Intact	Yellow	0.0	Negative
Building F	F2	Wall	C	Plaster	Intact	Yellow	0.0	Negative
Building F	F2	Wall	D	Plaster	Intact	Yellow	0.1	Negative
Building F	F2	Door	B	Metal	Intact	Brown	0.1	Negative
Building F	**F2**	**Door Frame**	**B**	**Metal**	**Intact**	**Peach**	**1.2**	**Positive**
Building F	F1, F3, F4	No Acces						
Building F	Girl's Restroom	Wall	A	Plaster	Intact	Beige	0.2	Negative
Building F	Girl's Restroom	Wall	B	Plaster	Intact	Beige	0.1	Negative
Building F	Girl's Restroom	Wall	C	Plaster	Intact	Beige	0.2	Negative
Building F	Girl's Restroom	Wall	D	Plaster	Intact	Beige	0.1	Negative
Building F	Girl's Restroom	Door	B	Metal	Intact	Red	0.0	Negative
Building F	Girl's Restroom	Door Frame	B	Metal	Intact	Brown	0.0	Negative

The HUD/EPA action level for lead-based paint is 1.0 mg/cm2.
Negative readings are below LOD for XRF

FIELD DA PORT

PROJECT NAME: San Bernardino City Unified School District: Marshall Elementary School

PROJECT NO.: 08169

Building	Area	Component	Location	Substrate	Condition	Color	Pb(mg/cm2)	Results
Building F	Girl's Restroom	Porcelain Fixtures	-	Porcelain	Intact	White	0.0	Negative
Building F	Girl's Restroom	Wall Tile	B	Ceramic	Intact	Red/White	0.0	Negative
Building F	Girl's Restroom	Floor Tile	-	Ceramic	Intact	White	0.0	Negative
Building F	Boy's Restroom	Wall	A	Plaster	Intact	Beige	0.2	Negative
Building F	Boy's Restroom	Wall	B	Plaster	Intact	Beige	0.1	Negative
Building F	Boy's Restroom	Wall	C	Plaster	Intact	Beige	0.0	Negative
Building F	Boy's Restroom	Wall	D	Plaster	Intact	Beige	0.1	Negative
Building F	Boy's Restroom	Door	B	Metal	Intact	Red	0.1	Negative
Building F	Boy's Restroom	Door Frame	B	Metal	Intact	Brown	0.0	Negative
Building F	Boy's Restroom	Porcelain Fixtures	-	Porcelain	Intact	White	0.0	Negative
Building F	Boy's Restroom	Wall Tile	B	Ceramic	Intact	Green/Gray	0.2	Negative
Building F	Boy's Restroom	Floor Tile	-	Ceramic	Intact	White	0.1	Negative
Building F	F5	Wall	A	Plaster	Intact	Yellow	0.0	Negative
Building F	F5	Wall	B	Plaster	Intact	Yellow	0.0	Negative
Building F	F5	Wall	C	Plaster	Intact	Yellow	0.0	Negative
Building F	F5	Wall	D	Plaster	Intact	Yellow	0.0	Negative
Building F	F5	Door	B	Metal	Intact	Brown	0.0	Negative
Building F	**F5**	**Door Frame**	**B**	**Metal**	**Intact**	**Peach**	**1.3**	**Positive**

The HUD/EPA action level for lead-based paint is 1.0 mg/cm2.
Negative readings are below LOD for XRF

Appendix E

DHS Form 8552

LEAD HAZARD EVALUATION REPORT

Section 1—Date of Lead Hazard Evaluation 07/09/08

Section 2—Type of Lead Hazard Evaluation (Check one box only)

☑ Lead inspection ☐ Risk assessment ☐ Clearance inspection ☐ Other (specify) _____

Section 3—Structure Where Lead Hazard Evaluation Was Conducted

Address [number, street, apartment (if applicable)]	City	County	ZIP code
Marshall ES 3288 North G Street	San Bernardino	San Bernardino	92405

Construction date (year) of structure	Type of structure (check one box only)
01/01/60	☐ Single family dwelling ☐ Multi-unit building ☐ Child-occupied facility ☑ Other (specify) School

Section 4—Owner of Structure (If business/agency, list contact person)

Name	Telephone number
San Bernardino City Unified School District	(909) 381-1238

Address [number, street, apartment (if applicable)]	City	State	ZIP code
777 North F Street	San Bernardino	California	92410

Section 5—Results of Lead Hazard Evaluation (Check one box only)

☐ **No lead-based paint detected.**
A lead inspection was conducted following the procedures outlined in Title 17, California Code of Regulations, Division 1, Chapter 8. No lead-based paint was detected during this lead inspection. This structure is found to be lead-based paint free.

☐ **No lead hazards detected.**
Lead hazard evaluation was conducted following the procedures outlined in Title 17, California Code of Regulations, Division 1, Chapter 8. No lead hazards were detected.

☑ **Lead-based paint and/or lead hazards detected.**
Lead hazard evaluation was conducted following the procedures outlined in Title 17, California Code of Regulations, Division 1, Chapter 8. Lead-based paint and/or lead hazards were detected.

Section 6—Individual Conducting Lead Hazard Evaluation

Name	Telephone number
David Tillema/Pacific Environmental	(800) 303-6484

Address [number, street, apartment (if applicable)]	City	State	ZIP code
28202 Cabot Road, Suite 300	Laguna Niguel	California	92677

Brand name and serial number of any portable x-ray fluorescence (XRF) instrument used (if applicable)

EDAX Map 4 Serial Number M41590

DHS certification number	Signature	Date
17740		07/28/08

Section 7—Attachments

A. A foundation diagram or sketch of the structure indicating the specific locations of each lead hazard or presence of lead-based paint;

B. Each testing method, device, and sampling procedure used;

C. All data collected, including quality control data, laboratory results, including laboratory name, address, and phone number.

First copy and attachments retained by inspector

Second copy and attachments retained by owner

Third copy only (no attachments) mailed to:
Department of Health Services
Childhood Lead Poisoning Prevention Branch
Reports
1515 Clay Street, No. 1801
Oakland, CA 94612
FAX (510) 622-5002

Appendix F

XRF Performance Characteristics Sheet

Performance Characteristic Sheet

EFFECTIVE DATE: **June 26, 1996** **EDITION NO.: 3**

MANUFACTURER AND MODEL:

Make: *Scitec Corporation*
Model: *MAP-4*
Source: ^{57}Co
Note: This sheet supersedes all previous sheets for the XRF instrument of the make, model, and source shown above.

FIELD OPERATION GUIDANCE

OPERATING PARAMETERS

Test mode, Screen mode, or Unlimited mode.

XRF CALIBRATION CHECK LIMITS

0.6 to 1.2 mg/cm^2 (inclusive)

SUBSTRATE CORRECTION:

When using Unlimited mode, substrate correction recommended for:

None

When using Unlimited mode, substrate correction <u>not</u> recommended for:

Brick, Concrete, Drywall, Metal, Plaster, and Wood

When using Screen or Test mode, for XRF results below 4.0 mg/cm^2, substrate correction recommended for:

Drywall, Metal, and Wood

When using Screen or Test mode, substrate correction <u>not</u> recommended for:

Brick, Concrete, and Plaster

INCONCLUSIVE RANGE OR THRESHOLD

UNLIMITED MODE READING DESCRIPTION	SUBSTRATE	INCONCLUSIVE RANGE (mg/cm^2)
Results not corrected for substrate bias for unlimited mode readings	Brick	0.91 to 1.19
	Concrete	0.91 to 1.19
	Drywall	0.91 to 1.19
	Metal	0.91 to 1.19
	Plaster	0.91 to 1.19
	Wood	0.91 to 1.19

SCREEN MODE READING DESCRIPTION	SUBSTRATE	INCONCLUSIVE RANGE (mg/cm²)
Results corrected for substrate bias for screen mode readings on drywall, metal, and wood substrates only	Brick	0.91 to 1.09
	Concrete	0.91 to 1.09
	Drywall	0.91 to 1.39
	Metal	0.91 to 1.19
	Plaster	0.91 to 1.09
	Wood	0.91 to 1.29

TEST MODE READING DESCRIPTION	SUBSTRATE	THRESHOLD (mg/cm²)	INCONCLUSIVE RANGE (mg/cm²)
Readings corrected for substrate bias for test mode readings on drywall, metal, and wood substrates only	Brick	0.9	None
	Concrete	0.9	None
	Drywall	None	0.91 to 1.39
	Metal	None	0.91 to 1.09
	Plaster	0.9	None
	Wood	None	0.91 to 1.29

BACKGROUND INFORMATION

EVALUATION DATA SOURCE AND DATE

This sheet is supplemental information to be used in conjunction with Chapter 7 of the HUD *Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing* ("HUD Guidelines"). Performance parameters shown on this sheet are calculated from an EPA/HUD evaluation using archived building components. Testing was conducted on approximately 150 test locations. All of the test locations were tested in February 1996 using two different instruments. One instrument had a new source installed in July 1994 and its strength at the time of testing was calculated as 9.4 mCi. The other instrument had a new source installed in September 1994 and its strength at the time of testing was calculated as 10.6 mCi.

OPERATING PARAMETERS

Performance parameters shown in this sheet are applicable only when properly operating the instrument using the manufacturer's instructions and procedures described in Chapter 7 of the HUD Guidelines.

XRF CALIBRATION CHECK:

The calibration of the XRF instrument should be checked using the paint film nearest 1.0 mg/cm^2 in the NIST Standard Reference Material (SRM) used (e.g., for NIST SRM 2579, use the 1.02 mg/cm^2 film).

If readings are outside the acceptable calibration check range, follow the manufacturer's instructions to bring the instruments into control before XRF testing proceeds

SUBSTRATE CORRECTION VALUE COMPUTATION

Chapter 7 of the HUD Guidelines provides guidance on correcting XRF results for substrate bias. Supplemental guidance for using the paint film nearest 1.0 mg/cm^2 for substrate correction is provided:

XRF results are corrected for substrate bias by subtracting from each XRF result a correction value determined separately in each house for single-family housing or in each development for multifamily housing, for each substrate. The correction value is an average of XRF readings taken over the NIST SRM paint film nearest to 1.0 mg/cm^2 at test locations that have been scraped bare of their paint covering. Compute the correction values as follows:

- Using the same XRF instrument, take three readings on a <u>bare</u> substrate area covered with the

NIST SRM paint film nearest 1 mg/cm^2. Repeat this procedure by taking three more readings on a second bare substrate area of the same substrate covered with the NIST SRM.

- Compute the correction value for each substrate type where XRF readings indicate substrate correction is needed by computing the average of all six readings as shown below.

  For each substrate type (the 1.02 mg/cm^2 NIST SRM is shown in this example; use the actual lead loading of the NIST SRM used for substrate correction):

$$\left.\begin{matrix}\text{Correction}\\ \text{Value}\end{matrix}\right\} = \frac{1^{st} + 2^{nd} + 3^{rd} + 4^{th} + 5^{th} + 6^{th}\ \text{Reading}}{6} - 1.02\,mg/cm^2$$

- Repeat this procedure for each substrate requiring substrate correction in the house or housing development.

EVALUATING THE QUALITY OF XRF TESTING

Randomly select ten testing combinations for retesting from each house or from two randomly selected units in multifamily housing. Use either 15-second readings or 60-second readings.

Conduct XRF retesting at the ten testing combinations selected for retesting.

Determine if the XRF testing in the units or house passed or failed the test by applying the steps below.

Compute the Retest Tolerance Limit by the following steps:

Determine XRF results for the original and retest XRF readings. Do not correct the original or retest results for substrate bias. In single-family and multi-family housing, a result is defined as a single reading. Therefore, there will be ten original and ten retest XRF results for each house or for the two selected units.

Calculate the average of the original XRF result and retest XRF result for each testing combination.

Square the average for each testing combination.

Add the ten squared averages together. Call this quantity C.

Multiply the number C by 0.0072. Call this quantity D.

Add the number 0.032 to D. Call this quantity E.

Take the square root of E. Call this quantity F.

Multiply F by 1.645. The result is the Retest Tolerance Limit.

Compute the average of all ten original XRF results.

Compute the average of all ten retest XRF results.

Find the absolute difference of the two averages.

If the difference is less than the Retest Tolerance Limit, the inspection has passed the retest. If the difference of the overall averages equals or exceeds the Retest Tolerance Limit, this procedure should be repeated with ten new testing combinations. If the difference of the overall averages is equal to or greater than the Retest Tolerance Limit a second time, then the inspection should be considered deficient.

Use of this procedure is estimated to produce a spurious result approximately 1% of the time. That is, results of this procedure will call for further examination when no examination is warranted in approximately 1 out of 100 dwelling units tested.

TESTING TIMES

For screen, test, and confirm modes, the MAP 4 instrument tests until a K-shell result is obtained relative to a level of precision. A result is "positive", "negative" or "retest" as displayed by indicator lights. For the unlimited mode, the MAP 4 instrument tests until a K-shell result is indicated relative to an action level (1.0 mg/cm ^{2} for archive testing) and the current precision, or until the the reading is terminated by releasing the trigger. A few unlimited mode readings were terminated because they exceeded the two-minute limit used for archive testing. The following tables provide testing time information for three testing modes. Insufficient information is available to provide this information for confirm mode. All times have been scaled to match an initial 12 miC source. Note that source strength and factors such as substrate may affect testing times.

UNLIMITED MODE TESTING TIMES (Seconds)

SUBSTRATE*	ALL DATA			MEDIAN FOR LABORATORY-MEASURED LEAD LEVELS (mg/cm²)		
	25th Percentile	Median	75th Percentile	Pb < 0.25	0.25 ≤ Pb < 1.0	1.0 ≤ Pb
Wood Drywall	3	4	6	4	13	3
Metal	3	4	8	4	9	3
Brick Concrete Plaster	4	5	8	6	6	3

*The general calibration was used for wood, drywall, brick, concrete, plaster. Steel calibration was used for metal. (There are no aluminum samples in the archive facility).

SCREEN MODE TESTING TIMES (Seconds)

SUBSTRATE*	ALL DATA			MEDIAN FOR LABORATORY-MEASURED LEAD LEVELS (mg/cm²)		
	25th Percentile	Median	75th Percentile	Pb < 0.25	0.25 ≤ Pb < 1.0	1.0 ≤ Pb
Wood Drywall	4	6	7	5	6	7
Metal	4	5	6	5	5	5
Brick Concrete Plaster	11	11	13	11	11	11

*The general calibration was used for wood, drywall, brick, concrete, plaster. Steel calibration was used for metal. (There are no aluminum samples in the archive facility).

TEST MODE TESTING TIMES (Seconds)						
SUBSTRATE	ALL DATA			MEDIAN FOR LABORATORY-MEASURED LEAD LEVELS (mg/cm²)		
	25th Percentile	Median	75th Percentile	Pb < 0.25	0.25 ≤ Pb < 1.0	1.0 ≤ Pb
Wood Drywall	17	22	27	21	20	28
Metal	13	20	23	20	20	20
Brick Concrete Plaster	41	42	52	41	46	43

*The general calibration was used for wood, drywall, brick, concrete, plaster. Steel calibration was used for metal. (There are no aluminum samples in the archive facility).

BIAS AND PRECISION

Do not use these bias and precision data to correct for substrate bias. These bias and precision data were computed without substrate correction from samples with laboratory-measured lead levels less than 4.0 mg/cm² lead. There were 15 testing locations taken in the screen mode with a laboratory-measured lead levels equal to or greater than 4.0 mg/cm² lead. None of these had XRF readings less than 1.0 mg/cm². There were 15 testing locations taken in the test mode with a laboratory-measured lead levels equal to or greater than 4.0 mg/cm² lead. None of these had XRF readings less than 1.0 mg/cm². There were not any testing locations taken in the confirm mode with a laboratory-measured lead levels equal to or greater than 4.0 mg/cm² lead. There were 15 testing locations taken in the unlimited mode with a laboratory-measured lead levels equal to or greater than 4.0 mg/cm² lead. None of these had XRF readings less than 1.0 mg/cm². All testing was done in February 1996 with two different instruments. The following data are for illustrative purposes only. Actual bias must be determined on the site. Inconclusive ranges provided above already account for bias and precision.

SCREEN MODE READING MEASURED AT	SUBSTRATE	BIAS (mg/cm²)	PRECISION* (mg/cm²)
0.0 mg/cm²	Brick	-0.1	0.3
	Concrete	-0.1	0.3
	Drywall	0.1	0.2
	Metal	0.1	0.3
	Plaster	-0.1	0.3
	Wood	0.0	0.2
0.5 mg/cm²	Brick	0.0	0.3
	Concrete	0.0	0.3
	Drywall	0.3	0.4
	Metal	0.2	0.3
	Plaster	0.0	0.3
	Wood	0.2	0.4
1.0 mg/cm²	Brick	0.1	0.4
	Concrete	0.1	0.4
	Drywall	0.5	0.6
	Metal	0.3	0.3
	Plaster	0.1	0.4
	Wood	0.4	0.6

2.0 mg/cm²	Brick	0.4	0.5
	Concrete	0.4	0.5
	Drywall	0.9	0.8
	Metal	0.5	0.3
	Plaster	0.4	0.5
	Wood	0.7	0.8

*Precision at 1 standard deviation

TEST MODE READING MEASURED AT	SUBSTRATE	BIAS (mg/cm²)	PRECISION* (mg/cm²)
0.0 mg/cm²	Brick	-0.1	0.2
	Concrete	-0.1	0.2
	Drywall	0.1	0.1
	Metal	0.1	0.2
	Plaster	-0.1	0.2
	Wood	0.0	0.1
0.5 mg/cm²	Brick	-0.1	0.3
	Concrete	-0.1	0.3
	Drywall	0.3	0.4
	Metal	0.2	0.2
	Plaster	-0.1	0.3
	Wood	0.2	0.4
1.0 mg/cm²	Brick	-0.1	0.3
	Concrete	-0.1	0.3
	Drywall	0.5	0.6
	Metal	0.3	0.2
	Plaster	-0.1	0.3
	Wood	0.4	0.6
2.0 mg/cm²	Brick	0.0	0.4
	Concrete	0.0	0.4
	Drywall	1.0	0.8
	Metal	0.5	0.2
	Plaster	0.0	0.4
	Wood	0.8	0.8

*Precision at 1 standard deviation

CLASSIFICATION OF RESULTS

XRF results are classified as positive if they are greater than the upper boundary of the inconclusive range, and negative if they are less than the lower boundary of the inconclusive range, or inconclusive if in between. The inconclusive range includes both its upper and lower bounds. Earlier editions of this *XRF Performance Characteristics Sheet* did not include both bounds of the inconclusive range as "inconclusive." While this edition of the Performance Characteristics Sheet uses a different system, the specific XRF readings that are considered positive, negative, or inconclusive for a given XRF model and substrate remain unchanged, so previous inspection results are not affected.

DOCUMENTATION

A document titled *Methodology for XRF Performance Characteristic Sheets* provides an explanation of the statistical methodology used to construct the data in the sheets, and provides empirical results from using the recommended inconclusive ranges or thresholds for specific XRF instruments. For a copy of this document call the National Lead Information Center Clearinghouse at 1-800-424-LEAD.

This XRF Performance Characteristics Sheet is a joint product of the U.S. Environmental Protection Agency (EPA) and the U.S. Department of Housing and Urban Development (HUD). The issuance of this sheet does not constitute rulemaking. The information provided here is intended solely as guidance to be used in conjunction with Chapter 7, Lead-Based Paint Inspection, of the *Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing*. EPA and HUD reserve the right to revise this guidance. Please address questions and comments on this sheet to: Director, Office of Lead Hazard Control (L), U.S. Department of Housing and Urban Development, 451 Seventh St, S.W., Washington, DC 20410.

Pacific Environmental Company

Limited Asbestos and Lead Survey Report

Ramona-Alessandro Elementary School Modernization Project
670 Ramona Avenue
San Bernardino, California

Prepared for:

San Bernardino City Unified School District
777 North F Street
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July 28, 2008

Project Number: 08170

Limited Asbestos and Lead Survey Report

Ramona-Alessandro Elementary School Modernization Project
670 Ramona Avenue
San Bernardino, California

Executive Summary

Pacific Environmental Company conducted a limited asbestos and lead survey in anticipation of modernizations at Ramona-Alessandro Elementary School, which is located at 670 Ramona Avenue in the City of San Bernardino, California. All work was conducted by State of California certified personnel and sampling was conducted in accordance with established sampling protocols. Laboratory analysis was performed by AmeriSci Los Angeles, an independent and accredited laboratory.

This executive summary is not to be utilized as a stand-alone document. The report shall be read in its entirety. The reader must review the detailed information provided in the accompanying text. Any interpretation, use, or conclusions resulting from the data contained in this report is the responsibility of the reader.

Asbestos-containing material (ACM) is defined by the Federal Environmental Protection Agency (EPA) as material containing more than one percent asbestos as determined by PLM, however, the California Department of Occupational Safety and Health (CalOSHA) classifies any material as having greater than one tenth of one percent asbestos as asbestos-containing construction material (ACCM).

Asbestos-containing materials identified during our inspection include the original vinyl floor tile in room A11 under carpet (~limited quantity identified, may be present in other, concealed areas), and thermal system insulation located above the ceiling in Building A. The flex joints on both sides of the forced air heater in Building X were identified in the AHERA inspection information but they were not located during this inspection.

The PLM results for the exterior stucco samples collected throughout the campus indicated that there was a trace (<0.1%) amount of asbestos present. As a result, these materials must be handled as ACCM in compliance with the CalOSHA requirements which specify worker protection through appropriate personal protective equipment, engineering controls and exposure assessment.

Current EPA regulations require that the asbestos-containing building materials be removed prior to demolition or renovation, if they are going to be impacted. The identified asbestos-containing materials are in good condition and do not require immediate action; however, if they are to be impacted by the renovations, then they must be removed in accordance with State of California Division of Occupational Safety and Health (Cal/OSHA) and South Coast Air Quality Management District (SCAQMD) requirements.

A licensed and certified asbestos abatement contractor must perform any asbestos abatement that takes place at the subject property. Waste generated from the asbestos abatement must be properly transported and disposed of.

Interior lead components identified at the site include various walls, doorframes, doors, window frames, bookshelves, chalkboard frames, baseboards, chair rails, ceramic wall tiles in restrooms and original porcelain sinks. Exterior lead

components include stucco walls, stairway railings, support columns, window frames, ceramic tile finishes and basketball poles.

The lead-laden paint, ceramic and porcelain finishes are generally in good condition but will likely need to be removed to facilitate the modernizations at the site. There were some defective paints identified which should be treated during the modernizations to prevent exposure to lead dust. A complete listing of our assays in included within the appendices of this report.

Existing fluorescent lamps (containing mercury vapor) should be removed, and the mercury recycled. PCB-containing electrical ballasts in light fixtures should also be segregated, and either disposed in a hazardous waste landfill or incinerated, in accordance with federal and state regulations and DTSC guidelines.

Pacific Environmental recommends that all future renovation, demolition, construction or abatement activities with the potential for disturbing the identified ACM or lead laden ceramic tile, be performed by properly trained and qualified personnel. These activities should employ state-of-the-art techniques, and be conducted in accordance with all applicable local, State and Federal laws and regulations.

Every effort was made to sample all of the building materials, however some materials may have been concealed and could not be exposed without demolition. If any additional materials are encountered during the demolition or renovation activities, please call us and we will sample and analyze accordingly.

The presence of the identified hazardous materials should be brought to the attention of contractors and personnel involved in the project at the subject site. Specifications have been prepared for the removal and handling of specific hazardous materials, such as those containing asbestos and lead.

Any employees, visitors, or contractors entering this building should be notified of the presence and condition of the asbestos-containing materials, lead-based paints, and other hazardous materials (including those listed under Proposition 65), in accordance with applicable regulations.

Table of Contents

Introduction	1
Quality Control Procedures	2
Site Description	2
Asbestos Inspection and Sampling Procedures	3
Asbestos Inspection Results	5
Summary and Recommendations for Asbestos-Containing Materials	5
Lead Inspection and Sampling Procedures	6
Lead Inspection Results	7
Lead Summary and Recommendations	7
Other Hazardous Materials	8
Limitations	8
References	9

Appendix A	Site Plans
Appendix B	Bulk Sample Summary Table
Appendix C	Asbestos Sample Analysis Reports and Chain of Custody
Appendix D	XRF Sampling Results
Appendix E	DHS Form 8552
Appendix F	XRF Performance Characteristics Sheet

Limited Asbestos and Lead Survey Report

Ramona-Alessandro Elementary School Modernization Project
670 Ramona Avenue
San Bernardino, California

Introduction

Pacific Environmental Company was retained by the San Bernardino City Unified School District to conduct a limited investigation to identify the presence of asbestos-containing materials, lead-based paints and other lead laden components that will require abatement or treatment, in conjunction with the school modernizations at Ramona-Alessandro Elementary School which is located at 670 Ramona Avenue in San Bernardino, California.

All work was conducted by State of California certified personnel and sampling was conducted in accordance with established sampling protocols. Laboratory analysis was performed by AmeriSci Los Angeles, an independent and accredited laboratory.

Field Services for the inspection were conducted on June 4 and July 10, 2008. The project team included David Tillema, a Cal/OSHA Certified Site Surveillance Technician and DHS Certified Lead Paint Inspector/Assessor, Victor Sanchez a Cal/OSHA Certified Site Surveillance Technician, and Michael Lyssy, a State Certified Asbestos Consultant and Registered Environmental Assessor.

The scope of work for this project included the following key elements:

- Review, verification and incorporation of the original AHERA inspection and re-inspection data and any subsequent reports detailing the results of prior asbestos and lead testing at the School into this report.
- Inspection and assessment of asbestos-containing materials, lead-based paints, lead glazed ceramics and pcb light ballasts
- Preparation of a final report that is suitable for inclusion in the District's specifications for abatement of hazardous building materials.

Prior to our asbestos assessments, we evaluated the site conditions and developed our sampling strategy to ensure identification of all asbestos-containing materials. Representative sampling of homogeneous materials was conducted per SCAQMD guidelines, and all identifiable suspect materials were sampled. Asbestos analysis was performed by an independent, State Certified, NVLAP Accredited Laboratory. Bulk samples were analyzed by polarized light microscopy (PLM), EPA Method 600/R-93/116. This report details the specific site conditions and estimated quantities of Asbestos Containing Material (ACM) for the project. Areas affected by destructive sampling were repaired so as not to cause hazards to school personnel, survey crew, visitors and the general public.

Testing for lead-based paint was performed using an EDAX Map-4 portable X-ray fluorescence (XRF) spectrum analyzer. Testing was modeled after the protocol outlined in the Department of Housing and Urban Developments document titled Lead-Based Paint: Interim Guidelines For Hazard Identification and Abatement in Public and Indian Housing (1997 Revision).

Quality Control Procedures

Pacific Environmental Company's integrated resources, technologies, discipline, and expertise combine to ensure that the inspection and analysis for each project is conducted based on the following principles:

- All applicable regulations are addressed in order to ensure that our field inspectors and lab personnel meet their responsibilities, do so cost-effectively, and are equipped with the practical knowledge they need in order to understand and comply with regulations that affect them.
- Care is taken to make certain that the information provided and actions recommended are practical and cost effective in achieving regulatory compliance.

The 'management' approach utilized for this project assured that all work was performed using the highest standard of quality. All project results, reports and recommendations are reviewed for accuracy, content and quality prior to presentation. We recognize that, for each assignment we undertake, the information we develop and the conclusions and advice we provide, will be used to support important management decisions.

Pacific Environmental Company's Quality Assurance Program requires that all personnel:

- Provide specific objectives so that project activities can be evaluated with regard to precision, accuracy, reproducibility, completeness, and comparability.
- Provide specific guidance on the proper methodology for all activities.
- Be provided with ongoing training to enhance their technical skills.
- Be trained in QA/QC procedures and QC activities.
- Review all reports until they are acceptable in terms of technical and editorial quality, and all quality assurance activities have been successfully performed.

Site Description

Ramona-Alessandro Elementary School campus consists of one main school building with three wings. The school was built approximately fifty years ago.

The interior finishes of the building consist generally of carpet and vinyl floorings over the concrete foundation, plaster wall systems, and suspended ceiling systems. The exterior is finished with a combination of brick and stucco. The A wing portion of the building is wood framed and the B and C wings appear to be concrete block additions.

The school was occupied at the time of our assessment and we worked after hours in an effort to characterize the site conditions. If any additional suspect materials are identified during the modernizations, please contact us to perform supplemental sampling.

Asbestos Inspection and Sampling Procedures

Asbestos-containing material (ACM) is defined by the Federal Environmental Protection Agency (EPA) as material containing more than one percent asbestos, as determined by polarized light microscopy (PLM). Title 8, Section 1529, of the California Code of Regulations, however, defines asbestos-containing construction material (ACCM) as any manufactured construction material that contains more than one-tenth of one percent asbestos by weight.

We reviewed the District's asbestos records on file in order to formulate our sampling strategy. The only documentation on file for the site was the Power Masters, Inc. AHERA summaries that were prepared originally in the late 1980s. This documentation had been marked-up to reflect the changes that have impacted ACMs over the years. The Power Master summary reports indicate that there were presumed asbestos floorings at the site, which are largely no longer present. They also indicated the presence of asbestos-containing pipe insulation and flex joints on the mechanical equipment. We collected samples of the vinyl floorings, plaster, button board, stucco and suspect roofing for material analysis to properly characterize the site conditions.

Subsequent to our review of the prior reports, a visual assessment of the suspect building materials located throughout the subject facility was completed prior to the collection of samples. During the visual assessment, the building materials suspected of containing asbestos were categorized by homogeneous areas. Materials are classified as homogenous when they appear uniform, have a consistent texture, and appear to have been installed at the same time.

The laboratory testing for the bulk samples was conducted in accordance with the recommended EPA Interim Method for Determination of Asbestos in Bulk Samples (EPA-600/R-93/116, July 1993).

The field investigation began with an initial site walk-through and identification of homogenous building materials suspected of containing asbestos. Samples were collected based on building layout, structural features, and mechanical and plumbing systems. Pacific Environmental then performed the following tasks:

- Evaluated whether materials suspected of containing asbestos were present at the site.
- Collected bulk samples, as required, to adequately characterize the suspect materials.
- Identified approximate sample locations and locations of identified ACM on field drawings or with photographs.
- Estimated the amount of ACM, where access allowed.
- Assessed the condition of the suspected and known ACMs.

At the time of inspection, suspect materials are assessed to be in good, damaged, or significantly damaged condition based on the following criteria:

> Good Condition - No or very limited visible damage or deterioration observed.
>
> Damaged Condition - Crumbling, blistering, water damage, gouges or other damage observed over less than 25% of the materials (one-tenth if evenly distributed); or accumulation of suspect powder, dust or debris observed below the material.
>
> Significantly Damaged - Crumbling, blistering, water damage, gouges or other damage observed over greater than 25% of the materials (one-tenth if evenly distributed); material delaminating or showing adhesive failure; or accumulation of suspect powder, dust or debris observed below the material.

The assessment process also includes classifying the material as Friable ACM or Non-Friable ACM. Friable ACM is the term given to any material that contains more than one percent (1%) asbestos by weight, which can be crumbled, pulverized, or reduced to powder by hand or mechanical pressure. The word "Friability" refers to a material's likeliness to re-

lease airborne fibers when in situ, or under mechanical pressure. There is a greater possibility that a friable material will release fibers into the air when disturbed than will a non-friable material (i.e., floor tiles, roofing materials, etc.), thereby causing a potential hazard.

After identifying those materials suspected of containing asbestos, the materials were grouped into homogeneous sampling areas. A homogeneous sampling area includes building materials that are uniform in texture and color and appear identical in every other respect. A modified AHERA protocol was used in estimating the number of samples to be collected. Actual samples collected were determined by field conditions. A total of thirty-five (35) bulk samples were collected and analyzed.

Bulk samples were collected by wetting the suspect material with amended water and cutting, scraping or coring it from its substrate using an appropriate sampling tool. Sampling tools were cleaned before and after each use to prevent cross contamination between sampling events. Small quantities of material, approximately 1/2 square inch each, were extracted from suspect materials and placed in sterile, airtight bags or vials, and sealed. Each sample was labeled with a unique identification number, utilizing a sequential numbering system. The sample was logged in on the bulk survey sheet and a description noted on the type of sample. Each sample container was then placed inside a larger sterile, airtight bag. As other samples were taken from each area, they were also placed inside this larger airtight bag. Sample locations were repaired using caulk, spray glue, encapsulant, or patching material as needed, but were not always returned to their original condition. The samples were transported under chain-of-custody to an independent NVLAP participating laboratory for analysis utilizing polarized light microscopy.

The laboratory testing was conducted in accordance with the EPA Interim Method for Determination of Asbestos in Bulk Samples (EPA-600/R-93/116, July 1993). Samples were examined for homogeneity, and non-homogeneous samples were ground to ensure homogeneity. Microscopic slides were prepared from each sample using a refractive index liquid, such as trisection and ethyl cinnamate, having a refractive index of 1.550; 1-bromo-naphthalene and 1-Iodonaphthalene, having a refractive index of 1.680; or hydrogenated terthenyl and 1-bromonaphtahlene, having a refractive index of 1.605. The slides were then examined for the presence of asbestos, utilizing polarized light microscopy (PLM) and dispersion staining techniques.

The percentage of asbestos was estimated by visual examination of fibers greater than five microns in length and with an aspect ratio of 3:1 or greater. The aspect ratio of 3:1 refers to the length of the fiber being three times as long as its width. If present, the identity of asbestos fibers was confirmed with appropriate refractive index liquids, application of dispersion staining and other techniques. The results were tabulated and detailed in the laboratory reports, which are included in the appendices of this report.

Asbestos Inspection Results

Based on our assessment services, the following materials were confirmed, or assumed, to contain greater than one percent (1%) asbestos, and are therefore classified as ACM and ACCM.

Material	Location	Estimated Quantity	Comments
Green Vinyl Flooring	A11	600 SF	This appears to be original, and was not seen in other areas of the school
Thermal System Insulation	Building A	400 LF	Above Ceiling

The Bulk Sample Summary Table, which identifies each sample and the corresponding analytical results, is included in Appendix B., The laboratory reports and chain of custody forms are included in Appendix C.

The flex joints on both sides of the forced air heater in Building X were identified in the AHERA inspection information but they were not located during this inspection.

The PLM results for the exterior stucco samples collected throughout the campus indicated that there was a trace (<0.1%) amount of asbestos present. As a result, these materials must be handled as ACCM in compliance with the CalOSHA requirements which specify worker protection through appropriate personal protective equipment, engineering controls and exposure assessment.

Summary and Recommendations for Asbestos-Containing Materials

All ACM that will be impacted by the planned modernizations must be removed pursuant to Rule 1403 of the South Coast Air Quality Management District's and CalOSHA Asbestos Regulations.

Abatement activities must be conducted in compliance with all applicable regulations, standards and generally accepted environmental and safety practices, including Federal OSHA (29 CFR 1926.58), EPA NESHAPS (40 CFR Part 61), and Toxic Substances Control Act (TSCA) Title II AHERA/ASHARA (40 CFR Part 763) Asbestos Regulations, the Occupational Safety and Health Administration, Asbestos Construction Standard, 29 CFR 1926.1101, and Title 8, California Code of Regulations Section 1529, Cal-OSHA Construction Standard.

All asbestos waste must be properly disposed of and documented. Waste Manifests must be submitted at the end of a project. Disposing of a known hazardous waste is illegal in the State of California. Every effort was made to sample all of the building materials, however some materials may have been concealed and could not be exposed without demolition. If any additional materials are encountered during the demolition activities, we will arrange to sample and analyze them accordingly.

Lead Inspection and Sampling Procedures

Lead-based paint and lead glazing on ceramics is of concern both as a source of direct exposure through ingestion of paint chips, and as a contributor to lead interior dust and exterior soil. Lead was widely used as a major ingredient in most interior and exterior oil-based paints prior to 1950. Lead compounds continued to be used as corrosion inhibitors, pigments and drying agents beginning in the early 1950's. In 1972, the Consumer Products Safety Commission limited lead content in new paint to 0.5% (5000 ppm) and, in 1978, to 0.06% (600 ppm). It has also been used extensively as a glaze on ceramic and porcelain finishes.

The U.S. Department of Housing and Urban Development (HUD) and the U.S. Environmental Protection Agency (EPA) define an inspection as a surface-by-surface investigation to determine the presence of lead-based paint (see 40 CFR part 745 and Title X of the 1992 Housing and Community Development Act).

As per the EPA & HUD guidelines, lead-based paint is defined as a dried paint film with a lead concentration of greater than or equal to 1.0 mg/cm2 or 0.5 percent by weight. Lead paint amounts were reported in mg/cm2 because this unit of measurement does not depend on the number of layers of non-lead based paint.

Portable XRF lead-based paint analyzers are the most common primary analytical method for inspections because of their demonstrated abilities to:

1. Determine if lead is present on many different types of surfaces

2. Measure the paint without destructive sampling or paint removal

3. Provide sample results immediately and at a relatively low cost per sample

Portable XRF instruments expose a building component to X-rays or gamma radiation, which causes lead to emit X-rays with a characteristic frequency or energy. The intensity of this radiation is measured by the XRF instrument. The inspector must then compare this displayed value (reading) with the inconclusive range or threshold specified in the XRF Performance Characteristic Sheet for the specific substrate beneath the painted surface. If the reading is less than the lower boundary of the inconclusive range, or less than the threshold, then the reading is considered negative. If the reading is greater than the upper boundary of the inconclusive range, or greater or equal to the threshold, then the reading is considered positive. Readings within the inconclusive range, including its boundary values, are considered inconclusive. Because the inconclusive ranges and/or thresholds shown in the Performance Characteristic Sheet are based on 1.0 mg/cm2, positive and negative readings are consistent with the HUD definition of lead-based paint for identification and disclosure purposes. The method employed for paint testing for this project was X-Ray Fluorescence (XRF) using an EDAX MAP4 lead paint analyzer (Serial Number M41509) with the capability to measure the lead content in dry paint films in the range of 0 to 50 milligrams per square centimeter.

The instrument's calibration was verified according to the manufacturer's specifications, in compliance with the Performance Characteristic Sheet (PCS) developed for this instrument. The PCS is located in Appendix F of this report. The readings from this instrument produce a 95% confidence level that the "lead" reading accurately reflects the actual level of lead in the tested surfaces, relative to the federal action level. Current industry standards suggest that, when it is determined that paint abatement and/or interim control activities will be performed on components, they should be performed according to practices that are in the HUD Guidelines and the regulations under section 402 of the Toxic Substances Control Act (TSCA), 15 USC 2682.

Lead Inspection Results

Sampling for this inspection was representative and any components that were not tested, but are similar to those components that tested positive for lead, should be considered and treated as lead laden.

Interior lead components identified at the site include various walls, doorframes, doors, window frames, bookshelves, chalkboard frames, baseboards, chair rails, ceramic wall tiles in restrooms and original porcelain sinks. Exterior lead components include stucco walls, stairway railings, support columns, window frames, ceramic tile finishes and basketball poles.

The lead-laden paint, ceramic and porcelain finishes are generally in good condition but will likely need to be removed to facilitate the modernizations at the site. There were some defective paints identified which should be treated during the modernizations to prevent exposure to lead dust. A complete listing of our assays in included within the appendices of this report.

The lead-laden paint, ceramic and porcelain finishes are generally in good condition but will likely need to be removed to facilitate the modernizations at the site. There were some defective paints identified which should be treated during the modernizations to prevent exposure to lead dust.

Lead Summary and Recommendations

The federal and CAL/OSHA regulations for lead in construction do not specify a level of a lead in paint that classifies it as LBP. However, federal and state OSHA regulations specify ***airborne lead levels*** that should not be exceeded during construction without appropriate protection and training.

The action level for lead is 30 micrograms per cubic meter of air (µg/m3), and the permissible exposure limit (PEL) is 50 µg/m3. These airborne lead levels can be exceeded during construction activities such as scraping, sanding, grinding, blasting, and torching LBP surfaces, even when levels of lead in paint are far below the HUD definition of LBP of 1.0 mg/cm2 or 0.5 percent lead by weight. The XRF is designed to accurately quantify paint around the set abatement level (1.0 mg/cm2, 5,000 parts per million, or 0.5 percent by weight). However, painted surfaces tested with XRF that result in instrument readings much less than 1.0 mg/cm2 (even 0.0 mg/cm2 and negative results) may contain amounts of lead that could create an airborne hazard to workers during construction.

Based on the levels of lead in the components identified in the building survey, Pacific Environmental recommends that only properly trained and equipped individuals be assigned site preparation tasks that would involve treatment or demolition of these components. Procedures and engineering controls must be designed to follow CAL/OSHA and Department of Health Services (State of California) requirements, and workers must wear appropriate personal protective equipment during the work.

Other Hazardous Materials

During our assessment of the structures, we visually inspected the locations of fluorescent light tubes and PCB ballasts. There are fluorescent fixtures throughout the main building with ballasts that are assumed to contain PCB's and fluorescent tubes. All PCB's and spent fluorescent light tubes should be handled, packaged and disposed of in compliance with current California Environmental Protection Agency, Department of Toxic Substances Control Guidelines.

Limitations

This report is not intended to identify all hazards or unsafe conditions or to imply that others do not exist. This survey was planned and implemented on the basis of a mutually agreed upon scope of work, and Pacific Environmental's experience in performing this type of assessment.

Pacific Environmental has performed this survey in a professional manner, using the degree of skill and care exercised for similar projects, under similar conditions, by reputable and competent environmental consultants. Pacific Environmental shall not be responsible for conditions or consequences arising from relevant facts that were concealed, withheld, or not fully disclosed at the time that this survey was conducted.

Pacific Environmental further states that no warranties, expressed or implied, are made regarding the quality, fitness, or results to be achieved as a consequence of this report, or impacted by information not properly disclosed to Pacific at the time of this report. It further states that no responsibility is assumed for the control or correction of conditions or practices existing at the premises of the client.

References

AHERA Summary, prepared by Power Masters, Inc.

Title 17, California Code of Regulations, Division 1, Chapter 8: Accreditation, Certification and Work Practices for Lead-Based Paint and Lead Hazards

Title 8, California Code of Regulations, Section 1532.1: Cal/OSHA Construction Safety Orders, Lead

"Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing," US Department of Housing and Urban Development, June 1995

South Coast Air Quality Management District Requirements (Rule 1403)

National Emissions Standards for Hazardous Air Pollutants, 40 CFR 61, M

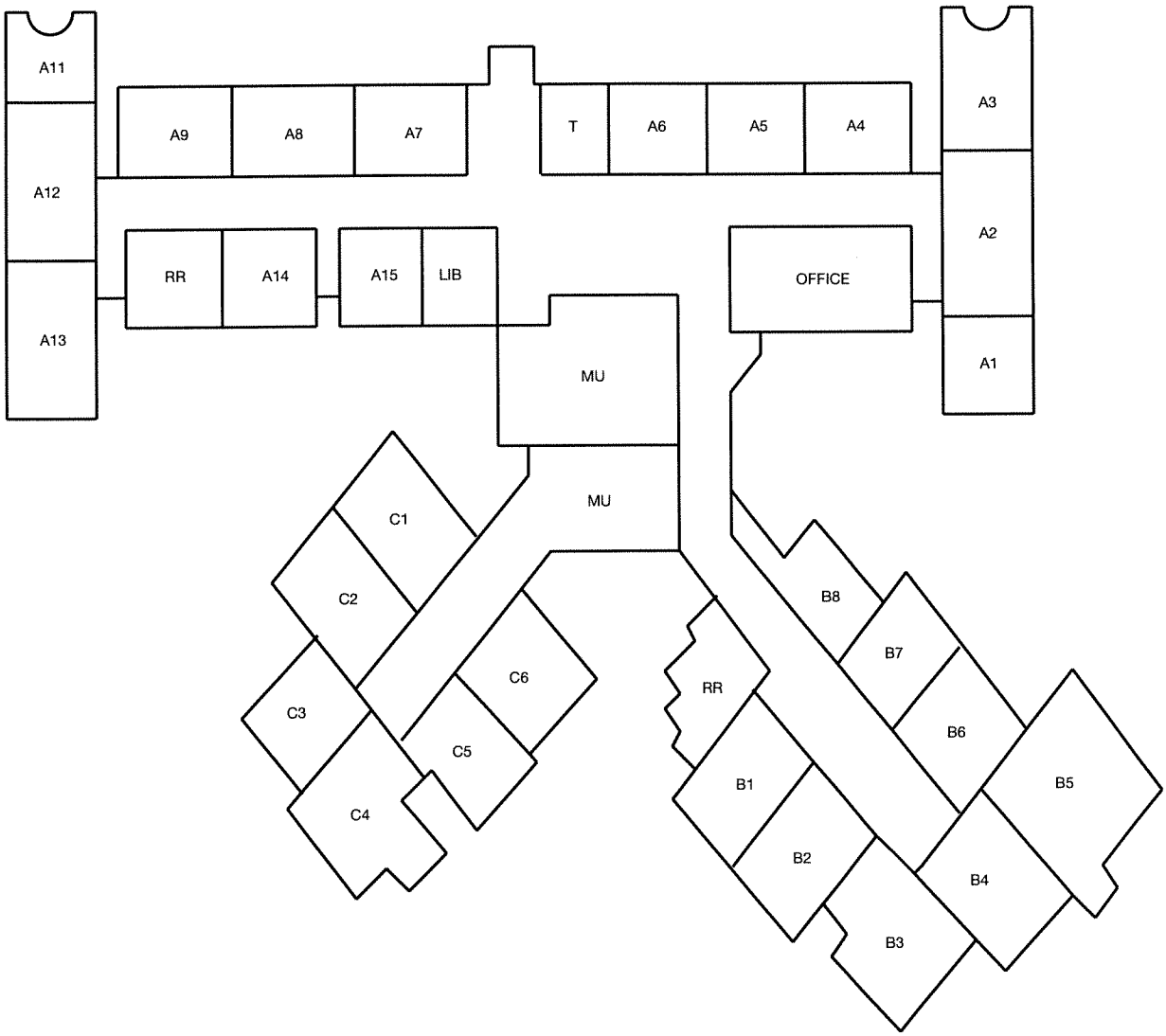
Occupational Safety and Health Administration, Asbestos in the Workplace, 29 CFR 1910.1001

Occupational Safety and Health Administration, Asbestos Construction Standard, 29 CFR 1926.1101

Title 8, California Code of Regulations Section 1529, Cal-OSHA Construction Standard

Appendix A

Site Plan



DATE PREPARED: 7/17/2008	DRAWN BY: M.L.	DRAWING TITLE: Site Plan/Sample Plan Ramona-Alessandro Elementary School 670 Romona Avenue San Bernardino, California
REVISION:	SOURCE: SBCUSD	
PROJECT NO: 08170	OTHER:	
PROJECT NAME: Limited Asbestos and Lead Survey		CLIENT: San Bernardino City Unified School District

FIGURE NO. 1

Appendix B

Bulk Sample Summary Table

RAMONA ALESSANDRO ELEMENTARY SCHOOL
BULK SAMPLE SUMMARY

Sample No.	Sample Description	Sample Location	Asbestos %
001	White 12" VFT and Mastic	B4	NAD
002	Brown Basecve and Mastic	B4	NAD
003	Carpet Glue	B4	NAD
004	Plaster	B4	NAD
005	Button Board	B4	NAD
006	Plaster	Teacher Prep between B4 and B5	NAD
007	White 12" VFT and Mastic	B Open Area near Sink	NAD
008	Plaster	B Boy's Restroom	NAD
009	HVAC Duct Tape	B Center Open Area	NAD
010	Carpet Glue	C Open Area	NAD
011	White 12" VFT and Mastic	MU Southwest Area	NAD
012	Brown Basecve and Mastic	C3	NAD
013	Tan 12" VFT and Mastic	C Teacher Prep Area	NAD
014	Tan 18" VFT	MU	NAD
015	Plaster	A Corridor South-West	NAD
016	Plaster	A3	NAD
017	Brown Basecve and Mastic	A3 By Entry	NAD
018	Carpet Glue	A10	NAD
019	White 12" VFT and Mastic	A South Center Corridor	NAD
020	White 12" VFT and Mastic	A Nurse's Office	NAD
021	White 12" VFT and Mastic	A Corridor at Entry to A7	NAD
022	Tan 12" VFT and Mastic	A Teacher's Lounge	NAD
023	Green VFT and Mastic	A11 (Center)	4% Chrysotile
024	Stucco	Building A Exterior	<1% Chrysotile
025	Stucco	Building A Exterior	<1% Chrysotile
026	Stucco	Building A Exterior	<1% Chrysotile
027	Stucco	Building A Exterior	<1% Chrysotile
028	Stucco	Building A Exterior	<1% Chrysotile
029	Stucco	Building B/C Exterior	<1% Chrysotile
030	Roof Core (White)	Building B/C Exterior	NAD
031	Flashing	Building B/C Exterior	NAD
032	Penetration Mastic	Building A Exterior	NAD
033	Roof Core	Building A Exterior	NAD
034	Flashing	Building A Exterior	NAD
035	Penetration Mastic	Building A Exterior	NAD

Appendix C

Asbestos Sample Analysis Reports and Chain of Custody

AmeriSci Los Angeles
24416 S. Main Street, Ste 308
Carson, California 90745
TEL: (310) 834-4868 • FAX: (310) 834-4772

PLM Bulk Asbestos Report

Pacific Environmental Company
Attn: Mike Lyssy
28202 Cabot Road
Suite 300
Laguna Niguel, CA 92677

Date Received 06/11/08
Date Examined 06/17/08

AmeriSci Job # 908061180
P.O. #

RE: SBCUSD; Ramona - Alessandro

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
001	908061180-01L1	*No*	NAD (by CVES) by Raymundo Orozco on 06/17/08
Location: 12" X 12" Wht. VFT / B-4			
Analyst Description: Beige, Homogeneous, Non-Fibrous, Floor Tile			
Asbestos Types:			
Other Material: Non-fibrous 100 %			
001	908061180-01L2	*No*	NAD (by CVES) by Raymundo Orozco on 06/17/08
Location: 12" X 12" Wht. VFT / B-4			
Analyst Description: Black, Homogeneous, Non-Fibrous, Mastic			
Asbestos Types:			
Other Material: Non-fibrous 100 %			
002	908061180-02L1	*No*	NAD (by CVES) by Raymundo Orozco on 06/17/08
Location: Brown Base Cove / B-4 (South - East)			
Analyst Description: Brown, Homogeneous, Non-Fibrous, Cove Base			
Asbestos Types:			
Other Material: Non-fibrous 100 %			
002	908061180-02L2	*No*	NAD (by CVES) by Raymundo Orozco on 06/17/08
Location: Brown Base Cove / B-4 (South - East)			
Analyst Description: Cream, Homogeneous, Non-Fibrous, Mastic			
Asbestos Types:			
Other Material: Non-fibrous 100 %			
002	908061180-02L3	*No*	NAD (by CVES) by Raymundo Orozco on 06/17/08
Location: Brown Base Cove / B-4 (South - East)			
Analyst Description: Brown, Homogeneous, Non-Fibrous, Mastic			
Asbestos Types:			
Other Material: Fibrous Talc 3 %, Non-fibrous 97 %			

See Reporting notes on last page

PLM Bulk Asbestos Report

SBCUSD; Ramona - Alessandro

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
003	908061180-03	***No***	NAD (by CVES) by Raymundo Orozco on 06/17/08
Location: Carpet Glue / B-4			
Analyst Description: Yellow, Homogeneous, Non-Fibrous, Bulk Material			
Asbestos Types:			
Other Material: Synthetic fibers 2 %, Non-fibrous 98 %			
004	908061180-04	***No***	NAD (by CVES) by Raymundo Orozco on 06/17/08
Location: Plaster / B-4			
Analyst Description: Beige, Heterogeneous, Non-Fibrous, Cementitious, Bulk Material			
Asbestos Types:			
Other Material: Non-fibrous 100 %			
005	908061180-05	***No***	NAD (by CVES) by Raymundo Orozco on 06/17/08
Location: Button Board / B-4			
Analyst Description: Beige/Brown, Heterogeneous, Fibrous, Bulk Material			
Asbestos Types:			
Other Material: Cellulose 15 %, Non-fibrous 85 %			
006	908061180-06	***No***	NAD (by CVES) by Raymundo Orozco on 06/17/08
Location: Plaster / Teacher Prep. Between B4/B5			
Analyst Description: Beige, Heterogeneous, Non-Fibrous, Cementitious, Bulk Material			
Asbestos Types:			
Other Material: Non-fibrous 100 %			
007	908061180-07L1	***No***	NAD (by CVES) by Raymundo Orozco on 06/17/08
Location: 12" X 12" Wht VFT / (B) Open Area (N/W Sink)			
Analyst Description: Beige, Homogeneous, Non-Fibrous, Floor Tile			
Asbestos Types:			
Other Material: Non-fibrous 100 %			
007	908061180-07L2	***No***	NAD (by CVES) by Raymundo Orozco on 06/17/08
Location: 12" X 12" Wht VFT / (B) Open Area (N/W Sink)			
Analyst Description: Black, Homogeneous, Non-Fibrous, Mastic			
Asbestos Types:			
Other Material: Cellulose 3 %, Non-fibrous 97 %			

See Reporting notes on last page

PLM Bulk Asbestos Report

SBCUSD; Ramona - Alessandro

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
008	908061180-08	*No*	NAD (by CVES) by Raymundo Orozco on 06/17/08
Location: Plaster / (B) Boys R.R.			
Analyst Description: Beige, Homogeneous, Non-Fibrous, Bulk Material			
Asbestos Types:			
Other Material: Non-fibrous 100 %			
009	908061180-09	*No*	NAD (by CVES) by Raymundo Orozco on 06/17/08
Location: HVAC Ducting Tape / (B) North - Center Open Area			
Analyst Description: Beige, Heterogeneous, Fibrous, Bulk Material			
Asbestos Types:			
Other Material: Cellulose 30 %, Non-fibrous 70 %			
010	908061180-10	*No*	NAD (by CVES) by Raymundo Orozco on 06/17/08
Location: Carpet Glue / (C) Open Area			
Analyst Description: Yellow, Heterogeneous, Fibrous, Bulk Material			
Asbestos Types:			
Other Material: Cellulose 5 %, Non-fibrous 95 %			
011	908061180-11L1	*No*	NAD (by CVES) by Raymundo Orozco on 06/17/08
Location: 12" X 12" Wht VFT / (Mu) South - West			
Analyst Description: Grey, Homogeneous, Non-Fibrous, Floor Tile			
Asbestos Types:			
Other Material: Non-fibrous 100 %			
011	908061180-11L2	*No*	NAD (by CVES) by Raymundo Orozco on 06/17/08
Location: 12" X 12" Wht VFT / (Mu) South - West			
Analyst Description: Black, Homogeneous, Non-Fibrous, Mastic			
Asbestos Types:			
Other Material: Cellulose 5 %, Non-fibrous 95 %			
011	908061180-11L3	*No*	NAD (by CVES) by Raymundo Orozco on 06/17/08
Location: 12" X 12" Wht VFT / (Mu) South - West			
Analyst Description: Grey, Homogeneous, Non-Fibrous, Leveling Compound			
Asbestos Types:			
Other Material: Non-fibrous 100 %			

See Reporting notes on last page

PLM Bulk Asbestos Report

SBCUSD; Ramona - Alessandro

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
012	908061180-12L1	***No***	NAD (by CVES) by Raymundo Orozco on 06/17/08
Location: Brown Base Cove / C-3			
Analyst Description: Brown, Homogeneous, Non-Fibrous, Cove Base			
Asbestos Types:			
Other Material: Non-fibrous 100 %			
012	908061180-12L2	***No***	NAD (by CVES) by Raymundo Orozco on 06/17/08
Location: Brown Base Cove / C-3			
Analyst Description: Cream, Homogeneous, Non-Fibrous, Mastic			
Asbestos Types:			
Other Material: Non-fibrous 100 %			
012	908061180-12L3	***No***	NAD (by CVES) by Raymundo Orozco on 06/17/08
Location: Brown Base Cove / C-3			
Analyst Description: Brown, Homogeneous, Non-Fibrous, Mastic			
Asbestos Types:			
Other Material: Fibrous Talc 3 %, Non-fibrous 97 %			
013	908061180-13L1	***No***	NAD (by CVES) by Raymundo Orozco on 06/17/08
Location: 12" X 12" Tan VFT / (C) Teacher's Prep			
Analyst Description: Beige, Homogeneous, Non-Fibrous, Floor Tile			
Asbestos Types:			
Other Material: Non-fibrous 100 %			
013	908061180-13L2	***No***	NAD (by CVES) by Raymundo Orozco on 06/17/08
Location: 12" X 12" Tan VFT / (C) Teacher's Prep			
Analyst Description: Black, Homogeneous, Non-Fibrous, Mastic			
Asbestos Types:			
Other Material: Cellulose 5 %, Non-fibrous 95 %			
014	908061180-14	***No***	NAD (by CVES) by Raymundo Orozco on 06/17/08
Location: Tan VFT (18" X 18") / (Mu)			
Analyst Description: Beige, Homogeneous, Non-Fibrous, Bulk Material			
Asbestos Types:			
Other Material: Non-fibrous 100 %			

See Reporting notes on last page

PLM Bulk Asbestos Report

SBCUSD; Ramona - Alessandro

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
015	908061180-15	***No***	NAD (by CVES) by Raymundo Orozco on 06/17/08
Location: Plaster / (A) Corridor South - West			
Analyst Description: Beige, Heterogeneous, Non-Fibrous, Cementitious, Bulk Material			
Asbestos Types:			
Other Material: Non-fibrous 100 %			
016	908061180-16	***No***	NAD (by CVES) by Raymundo Orozco on 06/17/08
Location: Plaster / (A) A-3 North - West			
Analyst Description: Beige, Heterogeneous, Non-Fibrous, Cementitious, Bulk Material			
Asbestos Types:			
Other Material: Non-fibrous 100 %			
017	908061180-17L1	***No***	NAD (by CVES) by Raymundo Orozco on 06/17/08
Location: Brown Base Cove / (A) A-3 (By Entry)			
Analyst Description: Brown, Homogeneous, Non-Fibrous, Cove Base			
Asbestos Types:			
Other Material: Non-fibrous 100 %			
017	908061180-17L2	***No***	NAD (by CVES) by Raymundo Orozco on 06/17/08
Location: Brown Base Cove / (A) A-3 (By Entry)			
Analyst Description: Cream, Homogeneous, Non-Fibrous, Mastic			
Asbestos Types:			
Other Material: Non-fibrous 100 %			
017	908061180-17L3	***No***	NAD (by CVES) by Raymundo Orozco on 06/17/08
Location: Brown Base Cove / (A) A-3 (By Entry)			
Analyst Description: Brown, Homogeneous, Non-Fibrous, Mastic			
Asbestos Types:			
Other Material: Wollastonite 5 %, Non-fibrous 95 %			
018	908061180-18	***No***	NAD (by CVES) by Raymundo Orozco on 06/17/08
Location: Carpet Glue / (A) A-10 (Center)			
Analyst Description: Cream, Heterogeneous, Fibrous, Bulk Material			
Asbestos Types:			
Other Material: Synthetic fibers 5 %, Non-fibrous 95 %			

See Reporting notes on last page

PLM Bulk Asbestos Report

SBCUSD; Ramona - Alessandro

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
019	908061180-19L1	***No***	NAD (by CVES) by Raymundo Orozco on 06/17/08
Location: 12" X 12" Wht VFT / (A) South - Center Corridor			
Analyst Description: Beige, Homogeneous, Non-Fibrous, Floor Tile **Asbestos Types:** **Other Material:** Non-fibrous 100 %			
019	908061180-19L2	***No***	NAD (by CVES) by Raymundo Orozco on 06/17/08
Location: 12" X 12" Wht VFT / (A) South - Center Corridor			
Analyst Description: Black, Homogeneous, Non-Fibrous, Mastic **Asbestos Types:** **Other Material:** Cellulose 2 %, Non-fibrous 98 %			
020	908061180-20L1	***No***	NAD (by CVES) by Raymundo Orozco on 06/17/08
Location: 12" X 12" Wht VFT / (A) Nurses Room			
Analyst Description: Beige, Homogeneous, Non-Fibrous, Floor Tile **Asbestos Types:** **Other Material:** Non-fibrous 100 %			
020	908061180-20L2	***No***	NAD (by CVES) by Raymundo Orozco on 06/17/08
Location: 12" X 12" Wht VFT / (A) Nurses Room			
Analyst Description: Black, Homogeneous, Non-Fibrous, Mastic **Asbestos Types:** **Other Material:** Non-fibrous 100 %			
021	908061180-21L1	***No***	NAD (by CVES) by Raymundo Orozco on 06/17/08
Location: 12" X 12" Wht VFT / (A) Corridor @ Entry To A-7			
Analyst Description: Beige, Homogeneous, Non-Fibrous, Floor Tile **Asbestos Types:** **Other Material:** Non-fibrous 100 %			
021	908061180-21L2	***No***	NAD (by CVES) by Raymundo Orozco on 06/17/08
Location: 12" X 12" Wht VFT / (A) Corridor @ Entry To A-7			
Analyst Description: Black, Homogeneous, Non-Fibrous, Mastic **Asbestos Types:** **Other Material:** Non-fibrous 100 %			

See Reporting notes on last page

PLM Bulk Asbestos Report

SBCUSD; Ramona - Alessandro

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
021	908061180-21L3	*No*	NAD (by CVES) by Raymundo Orozco on 06/17/08
Location: 12" X 12" Wht VFT / (A) Corridor @ Entry To A-7			
Analyst Description: Grey, Homogeneous, Non-Fibrous, Leveling Compound			
Asbestos Types:			
Other Material: Non-fibrous 100 %			
022	908061180-22L1	*No*	NAD (by CVES) by Raymundo Orozco on 06/17/08
Location: 12" X 12" Tan VFT / (A) Teachers Lounge			
Analyst Description: Beige, Homogeneous, Non-Fibrous, Floor Tile			
Asbestos Types:			
Other Material: Non-fibrous 100 %			
022	908061180-22L2	*No*	NAD (by CVES) by Raymundo Orozco on 06/17/08
Location: 12" X 12" Tan VFT / (A) Teachers Lounge			
Analyst Description: Black, Homogeneous, Non-Fibrous, Mastic			
Asbestos Types:			
Other Material: Cellulose 5 %, Non-fibrous 95 %			
023	908061180-23L1	*No*	NAD (by CVES) by Raymundo Orozco on 06/17/08
Location: Green Vinyl Floor Tile (Unknown Size) / (A) A-11 (Center)			
Analyst Description: Yellow, Heterogeneous, Fibrous, Mastic			
Asbestos Types:			
Other Material: Cellulose 3 %, Non-fibrous 97 %			
023	908061180-23L2	*Yes*	4 % (by CVES) by Raymundo Orozco on 06/17/08
Location: Green Vinyl Floor Tile (Unknown Size) / (A) A-11 (Center)			
Analyst Description: Grey, Heterogeneous, Fibrous, Floor Tile			
Asbestos Types: Chrysotile 4.0 %			
Other Material: Non-fibrous 96 %			
023	908061180-23L3	*No*	NAD (by CVES) by Raymundo Orozco on 06/17/08
Location: Green Vinyl Floor Tile (Unknown Size) / (A) A-11 (Center)			
Analyst Description: Black, Homogeneous, Non-Fibrous, Mastic			
Asbestos Types:			
Other Material: Cellulose 5 %, Non-fibrous 95 %			

See Reporting notes on last page

PLM Bulk Asbestos Report

SBCUSD; Ramona - Alessandro

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
023	908061180-23L4	***No***	NAD (by CVES) by Raymundo Orozco on 06/17/08
Location: Green Vinyl Floor Tile (Unknown Size) / (A) A-11 (Center)			
Analyst Description: Black, Heterogeneous, Fibrous, Flooring **Asbestos Types:** **Other Material:** Cellulose 35 %, Non-fibrous 65 %			
024	908061180-24	***Yes***	Trace (<1 %) (by CVES) by Raymundo Orozco on 06/17/08
Location: Stucco / (A) Exterior (North Center)			
Analyst Description: Beige/Grey, Heterogeneous, Non-Fibrous, Cementitious, Bulk Material **Asbestos Types:** Chrysotile <1. % **Other Material:** Non-fibrous 100 %			
025	908061180-25	***Yes***	Trace (<1 %) (by CVES) by Raymundo Orozco on 06/17/08
Location: Stucco / (A) N/W Exterior			
Analyst Description: Beige/Grey, Heterogeneous, Non-Fibrous, Cementitious, Bulk Material **Asbestos Types:** Chrysotile <1. % **Other Material:** Non-fibrous 100 %			
026	908061180-26	***Yes***	Trace (<1 %) (by CVES) by Raymundo Orozco on 06/17/08
Location: Stucco / (A) S/E Exterior			
Analyst Description: Beige/Grey, Heterogeneous, Non-Fibrous, Cementitious, Bulk Material **Asbestos Types:** Chrysotile <1. % **Other Material:** Non-fibrous 100 %			
027	908061180-27	***Yes***	Trace (<1 %) (by CVES) by Raymundo Orozco on 06/17/08
Location: Stucco / South Center Exterior			
Analyst Description: Grey, Heterogeneous, Non-Fibrous, Cementitious, Bulk Material **Asbestos Types:** Chrysotile <1. % **Other Material:** Non-fibrous 100 %			
028	908061180-28	***Yes***	Trace (<1 %) (by CVES) by Raymundo Orozco on 06/17/08
Location: Stucco / (A) N/E Exterior			
Analyst Description: Beige/Grey, Heterogeneous, Non-Fibrous, Cementitious, Bulk Material **Asbestos Types:** Chrysotile <1. % **Other Material:** Non-fibrous 100 %			

See Reporting notes on last page

PLM Bulk Asbestos Report

SBCUSD; Ramona - Alessandro

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
029	908061180-29	***Yes***	Trace (<1 %) (by CVES) by Raymundo Orozco on 06/17/08
Location: Stucco / (B/C) Exterior			
Analyst Description: Beige/Grey, Heterogeneous, Non-Fibrous, Cementitious, Bulk Material			
Asbestos Types: Chrysotile <1. %			
Other Material: Non-fibrous 100 %			
030	908061180-30	***No***	NAD (by CVES) by Raymundo Orozco on 06/17/08
Location: Roof Core (White) / (B/C) Exterior			
Analyst Description: Black/White, Heterogeneous, Fibrous, Bulk Material			
Asbestos Types:			
Other Material: Fibrous glass 10 %, Non-fibrous 90 %			
031	908061180-31	***No***	NAD (by CVES) by Raymundo Orozco on 06/17/08
Location: Flashing / (B/C) Exterior			
Analyst Description: Black, Heterogeneous, Fibrous, Bulk Material			
Asbestos Types:			
Other Material: Fibrous glass 15 %, Non-fibrous 85 %			
032	908061180-32	***No***	NAD (by CVES) by Raymundo Orozco on 06/17/08
Location: Penetration Mastic / (B/C) Exterior			
Analyst Description: Black, Homogeneous, Non-Fibrous, Bulk Material			
Asbestos Types:			
Other Material: Cellulose 5 %, Non-fibrous 95 %			
033	908061180-33	***No***	NAD (by CVES) by Raymundo Orozco on 06/17/08
Location: Roof core / (A) Exterior			
Analyst Description: Black, Heterogeneous, Fibrous, Bulk Material			
Asbestos Types:			
Other Material: Cellulose 10 %, Fibrous glass 20 %, Non-fibrous 70 %			
034	908061180-34	***No***	NAD (by CVES) by Raymundo Orozco on 06/17/08
Location: Flashing / (A) Exterior			
Analyst Description: Black, Heterogeneous, Fibrous, Bulk Material			
Asbestos Types:			
Other Material: Fibrous glass 15 %, Non-fibrous 85 %			

See Reporting notes on last page

PLM Bulk Asbestos Report

SBCUSD; Ramona - Alessandro

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
035	908061180-35	***No***	NAD (by CVES) by Raymundo Orozco on 06/17/08

Location: Penetration Mastic / (A) Exterior

Analyst Description: Black, Heterogeneous, Fibrous, Bulk Material
Asbestos Types:
Other Material: Cellulose 10 %, Non-fibrous 90 %

Reporting Notes:
Analyzed By: Raymundo Orozco _____; Date Analyzed: 6/17/2008 6/17/08
*NAD = no asbestos detected; Detection Limit <1%; Reporting Limits: CVES = 1%, 400 Pt Ct = 0.25%, 1000 Pt Ct = 0.1%; NA = not analyzed; NA/PS = not analyzed / positive stop; NVA = No Visible Asbestos; PLM (polarized light microscopy) Bulk Asbestos Analysis by EPA 600/M4-82-020 per 40 CFR 763 (NVLAP Lab #200346-0, CA ELAP lab #2322); Note: PLM is not consistently reliable in detecting asbestos in floor coverings and similar NOB terials. TEM is currently the only method that can be used to determine if this material can be considered or treated as non-asbestos-containing in v York State (also see EPA Advisory for floor tile, FR 59, 146, 38970, 8/1/94). NIST Accreditation requirements mandate that this report must not be reproduced except in full with the approval of the laboratory. This PLM report relates ONLY to the items tested.
Reviewed By: _____

PACIFIC ENVIRONMENTAL

Date:	6/4/08
Client:	SBCUSD
Site:	Ramona - Alessandro
Project No:	
Inspector(s):	D.T/V.S.

ASBESTOS BULK SAMPLE FIELD LOG AND CHAIN OF CUSTODY

Sample Number	Material Sampled	Sample Location	Condition
001	12"x12" Wht. VFT	B-4	G
002	Brown Base Cove	B-4 (South-East)	
003	Carpet Glue	B-4	
004	Plaster		
005	Button Board		
006	Plaster	Teacher Prep. between B4/B5	
007	12"x12" wht VFT	(B) Open Area (N/W Sink)	G
008	Plaster	(B) Boy's R.R.	
009	HVAC Ducting Tape	(B) North-Center Open Area	
010	Carpet Glue	(C) Open Area	
011	12"x12" wht VFT	(MU) South-West	
012	Brown Basecove	C-3	G
013	12"x12" Tan VFT	(C) Teacher's Prep	
014	~~12"x12"~~ Tan VFT (18"x18")	(M.U.)	G
015	Plaster	(A) Corridor South-West	
016		(A) A-3 North-West	
017	Brown Basecove	(A) A-3 (by entry)	
018	Carpet Glue	(A) A-10 (Center)	G
019	12"x12" wht VFT	(A) South-Center Corridor	
020		(A) Nurses Room	
021		(A) Corridor Entry to A-7	
022	12"x12" Tan VFT	(A) Teachers Lounge	G
023	Green Vinyl Floor Tile (Unknown size)	(A) A-11 (Center)	D
024	Stucco	(A) Exterior (North Center)	G

Analytical Method: PLM

Turn Around Time: Standard

Please fax results to (714)776-3500 and mail to

Pacific Environmental Company
1475 S. State College Blvd., Suite 212
Anaheim, California 92806

CHAIN OF CUSTODY:

Name	Signature	Date/Time
David Tillema	[signature]	6/4/08

RECEIVED
JUN 11 2008
B. ARELLANO

PACIFIC ENVIRONMENTAL

Date:	6/4/08
Client:	SBCUSD
Site:	Ramona - Alessandro E.S.
Project No:	
Inspector(s):	D.T. / V.S.

ASBESTOS BULK SAMPLE FIELD LOG AND CHAIN OF CUSTODY

Sample Number	Material Sampled	Sample Location	Condition
025	Stucco	(A) N/W Exterior	
026		(A) S/E	
027		South Center	
028		(A) N/E	
029		(B/C) Exterior	
030	Roof Core (white)		
031	Flashing		
032	Penetration Mastic		
033	Roof Core	(A)	
034	Flashing		
035	Penetration Mastic		

Analytical Method: PLM

Turn Around Time: Standard

Please fax results to (714)776-3500 and mail to

Pacific Environmental Company
1475 S. State College Blvd., Suite 212
Anaheim, California 92806

CHAIN OF CUSTODY:

Name	Signature	Date/Time
David Tillems	[signature]	6/4/08

RECEIVED
JUN 11 2008
1030
B. ARELLANO

Appendix D

XRF Sampling Results

FIELD DAT EPORT

PROJECT NAME: San Bernardino City Unified School District: Ramona-Alessandro Elementary School

PROJECT NO.: 08170

Building	Area	Component	Location	Substrate	Condition	Color	Pb(mg/cm2)	Results
School	Exterior	Wall	A	Stucco	Intact	Beige	0.0	Negative
School	Exterior	Wall	A	Brick	Intact	Beige	0.0	Negative
School	Exterior	Wall	C	Brick	Intact	Beige	0.4	Negative
School	**Exterior**	**Wall**	**C**	**Stucco**	**Intact**	**Beige**	**1.4**	**Positive**
School	Exterior	Entry Gate	A	Metal	Intact	Brown	0.6	Negative
School	**Exterior**	**Stairway Railing**	**A**	**Metal**	**Defective**	**Brown**	**1.2**	**Positive**
School	Exterior	Door (A1)	A	Metal	Intact	Brown	0.2	Negative
School	Exterior	Door (Office)	A	Metal	Intact	Brown	0.2	Negative
School	Exterior	Door	B	Metal	Defective	Brown	0.0	Negative
School	Exterior	Door	C	Metal	Intact	Brown	0.3	Negative
School	**Exterior**	**Support Column**	**A**	**Metal**	**Intact**	**Brown**	**1.3**	**Positive**
School	Exterior	Support Column	C	Metal	Defective	Brown	0.3	Negative
School	Exterior	Door Frame (A1)	A	Wood	Intact	Brown	0.4	Negative
School	Exterior	Door Frame	B	Metal	Defective	Brown	0.0	Negative
School	Exterior	Door Frame	C	Wood	Intact	Brown	0.1	Negative
School	**Exterior**	**Stairway Railing**	**C**	**Metal**	**Defective**	**Brown**	**1.2**	**Positive**
School	**Exterior**	**Window Frame**	**A**	**Wood**	**Defective**	**Brown**	**5.3**	**Positive**
School	**Exterior**	**Window Frame**	**D**	**Wood**	**Defective**	**Brown**	**1.3**	**Positive**
School	**Exterior**	**Ceramic Wall Tile**	**A**	**Ceramic**	**Intact**	**Beige**	**6.9**	**Positive**
School	**Exterior**	**Ceramic Wall Tile**	**B**	**Ceramic**	**Intact**	**Beige**	**5.5**	**Positive**
School	**Exterior**	**Wall**	**D**	**Stucco**	**Intact**	**Beige**	**1.2**	**Positive**
School	**Exterior**	**Basketball Pole**	**C**	**Metal**	**Intact**	**Red**	**1.4**	**Positive**
School	Exterior	Porch Eaves	A	Wood	Defective	White	0.0	Negative
School	Exterior	Porch Fascia	A	Wood	Defective	White	0.0	Negative
School	Exterior	Fascia	B	Metal	Defective	Brown	0.0	Negative
School	Exterior	Porch Joists	A	Wood	Defective	White	0.0	Negative
School	Exterior	Porch Ceiling	A	Stucco	Defective	White	0.0	Negative
School	Exterior	Downspout	A	Metal	Intact	Beige	0.2	Negative
School	Exterior	Downspout	B	Metal	Intact	Beige	0.5	Negative
School	Office	Wall	B	Wood	Intact	White	0.3	Negative
School	Office	Wall	C	Wood	Intact	White	0.0	Negative
School	Office	Door	B	Metal	Intact	Brown	0.0	Negative
School	Office	Window Frame	B	Metal	Intact	Brown	0.1	Negative
School	Nurse's Office	Wall	B	Wood	Intact	White	0.3	Negative
School	Nurse's Office	Wall	D	Wood	Intact	White	0.0	Negative

The HUD/EPA action level for lead-based paint is 1.0 mg/cm2.
Negative readings are below LOD for XRF

FIELD DAT EPORT

PROJECT NAME: San Bernardino City Unified School District: Ramona-Alessandro Elementary School

PROJECT NO.: 08170

Building	Area	Component	Location	Substrate	Condition	Color	Pb(mg/cm2)	Results
School	Nurse's Office	Door	B	Metal	Intact	Brown	0.6	Negative
School	Principal's Office	Wall	A	Wood	Intact	White	0.0	Negative
School	Principal's Office	Wall	B	Wood	Intact	White	0.0	Negative
School	Principal's Office	Wall	C	Wood	Intact	White	0.0	Negative
School	Principal's Office	Wall	D	Wood	Intact	White	0.1	Negative
School	Principal's Office	Door	C	Wood	Intact	Brown	0.0	Negative
School	Principal's Office	Door Frame	C	Metal	Intact	Brown	0.1	Negative
School	**A Wing Corridor**	**Wall**	**A**	**Plaster**	**Intact**	**White**	**2.0**	**Positive**
School	A Wing Corridor	Wall	B	Wood	Intact	White	0.1	Negative
School	**A Wing Corridor**	**Wall**	**C**	**Plaster**	**Intact**	**White**	**2.1**	**Positive**
School	**A Wing Corridor**	**Wall**	**D**	**Plaster**	**Intact**	**White**	**2.5**	**Positive**
School	**A Wing Corridor**	**Wall**	**B**	**Wood**	**Intact**	**White**	**8.8**	**Positive**
School	A Wing Corridor	Door	B	Metal	Intact	Brown	0.4	Negative
School	A Wing Corridor	Door	B	Wood	Intact	Brown	0.4	Negative
School	A Wing Corridor	Chair Rail	A	Wood	Intact	White	0.5	Negative
School	A Wing Corridor	Door Frame	B	Metal	Intact	Brown	0.3	Negative
School	A Wing Corridor	Door Frame	B	Metal	Intact	Brown	0.5	Negative
School	A Wing Teacher's RR	Wall	A	Plaster	Intact	White	0.0	Negative
School	A Wing Teacher's RR	Wall	B	Plaster	Intact	White	0.1	Negative
School	A Wing Teacher's RR	Wall	C	Plaster	Intact	White	0.2	Negative
School	A Wing Teacher's RR	Wall	D	Plaster	Intact	White	0.2	Negative
School	A Wing Teacher's RR	Wall Tile	-	Ceramic	Intact	Green/Gray	0.0	Negative
School	Counselor's Office	Wall	A	Plaster	Intact	White	0.0	Negative
School	Counselor's Office	Wall	B	Plaster	Intact	White	0.1	Negative
School	Counselor's Office	Wall	C	Plaster	Intact	White	0.2	Negative
School	Counselor's Office	Wall	D	Plaster	Intact	White	0.2	Negative
School	Counselor's Office	Door	C	Wood	Intact	Brown	0.2	Negative
School	Counselor's Office	Porcelain Fixture	A	Porcelain	Intact	White	0.0	Negative
School	Counselor's Office	Door Frame	C	Metal	Intact	Brown	0.1	Negative
School	**Counselor's Office**	**Window Frame**	**B**	**Wood**	**Intact**	**White**	**4.8**	**Positive**
School	Counselor's Office	Floor Tile	-	Ceramic	Intact	Gray	0.1	Negative
School	**A3**	**Wall**	**A**	**Plaster**	**Intact**	**White**	**2.8**	**Positive**
School	**A3**	**Wall**	**B**	**Plaster**	**Intact**	**White**	**1.2**	**Positive**
School	A3	Wall	C	Plaster	Intact	White	0.5	Negative
School	**A3**	**Wall**	**D**	**Plaster**	**Intact**	**White**	**3.8**	**Positive**

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Negative readings are below LOD for XRF

FIELD DA EPORT

PROJECT NAME: San Bernardino City Unified School District: Ramona-Alessandro Elementary School

PROJECT NO.: 08170

Building	Area	Component	Location	Substrate	Condition	Color	Pb(mg/cm2)	Results
School	A3	Baseboard	C	Wood	Intact	White	0.4	Negative
School	A3	Door	D	Wood	Intact	White	10.1	Positive
School	A3	Bookshelf	C	Wood	Intact	White	3.8	Positive
School	A3	Door Frame	D	Wood	Intact	White	6.3	Positive
School	A3	Chalkboard Frame	D	Wood	Defective	White	10.4	Positive
School	A3	Window Frame	A	Wood	Intact	White	6.4	Positive
School	A3	Lower Cabinet	B	Wood	Intact	White	0.1	Negative
School	A3	Baseboard	B	Wood	Intact	White	1.2	Positive
School	A2	Wall	A	Plaster	Intact	White	1.2	Positive
School	A2	Wall	B	Plaster	Intact	White	0.3	Positive
School	A2	Wall	C	Plaster	Intact	White	1.2	Positive
School	A2	Wall	D	Plaster	Intact	White	1.2	Positive
School	A2	Baseboard	C	Wood	Intact	White	1.2	Positive
School	A2	Door	D	Wood	Intact	Brown	0.0	Negative
School	A2	Bookshelf	C	Wood	Intact	White	0.0	Negative
School	A2	Door Frame	D	Wood	Intact	Brown	0.2	Negative
School	A2	Chalkboard Frame	B	Wood	Intact	White	1.7	Positive
School	A2	Window Frame	A	Wood	Intact	White	6.8	Positive
School	A2	Lower Cabinet	D	Wood	Intact	White	0.0	Negative
School	A2	Baseboard	A	Wood	Intact	White	1.2	Positive
School	A4	Wall	A	Plaster	Intact	White	1.4	Positive
School	A4	Wall	B	Plaster	Intact	White	1.2	Positive
School	A4	Wall	C	Plaster	Intact	White	1.5	Positive
School	A4	Wall	D	Plaster	Intact	White	1.4	Positive
School	A4	Baseboard	A	Wood	Intact	White	5.8	Positive
School	A4	Door	B	Wood	Intact	Brown	0.2	Negative
School	A4	Bookshelf	A	Wood	Intact	White	6.6	Positive
School	A4	Door Frame	B	Metal	Intact	Brown	0.1	Negative
School	A4	Window Frame	D	Wood	Intact	White	10.8	Positive
School	A4	Lower Cabinet	D	Wood	Intact	White	0.1	Negative
School	A5	Wall	A	Plaster	Intact	White	1.3	Positive
School	A5	Wall	B	Plaster	Intact	White	1.2	Positive
School	A5	Wall	C	Plaster	Intact	White	1.2	Positive
School	A5	Wall	D	Plaster	Intact	White	1.4	Positive
School	A5	Baseboard	D	Wood	Intact	White	8.4	Positive

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Negative readings are below LOD for XRF

FIELD DA' EPORT

PROJECT NAME: San Bernardino City Unified School District: Ramona-Alessandro Elementary School

PROJECT NO.: 08170

Building	Area	Component	Location	Substrate	Condition	Color	Pb(mg/cm2)	Results
School	A5	Door	B	Wood	Intact	Brown	0.0	Negative
School	**A5**	**Sink**	**A**	**Porcelain**	**Intact**	**White**	**38.2**	**Positive**
School	A5	Door Frame	B	Metal	Intact	Brown	0.0	Negative
School	**A5**	**Window Frame**	**D**	**Wood**	**Intact**	**White**	**7.5**	**Positive**
School	**A-6**	**Wall**	**A**	**Plaster**	**Intact**	**White**	**1.4**	**Positive**
School	**A-6**	**Wall**	**B**	**Plaster**	**Intact**	**White**	**1.3**	**Positive**
School	**A-6**	**Wall**	**C**	**Plaster**	**Intact**	**White**	**1.4**	**Positive**
School	**A-6**	**Wall**	**D**	**Plaster**	**Intact**	**White**	**1.2**	**Positive**
School	**A-6**	**Baseboard**	**B**	**Wood**	**Intact**	**White**	**5.1**	**Positive**
School	**A-6**	**Chair Rail**	**B**	**Wood**	**Intact**	**White**	**7.4**	**Positive**
School	**A-6**	**Bookshelf**	**A**	**Wood**	**Intact**	**White**	**5.6**	**Positive**
School	A-6	Bookshelf	D	Wood	Intact	White	0.0	Negative
School	A-6	Lower Cabinet	D	Wood	Intact	White	0.2	Negative
School	A-7	Wall	A	Plaster	Intact	White	0.0	Negative
School	A-7	Wall	B	Plaster	Intact	White	0.0	Negative
School	A-7	Wall	C	Plaster	Intact	White	0.1	Negative
School	A-7	Wall	D	Plaster	Intact	White	0.4	Negative
School	A-7	Door	C	Metal	Intact	Dark Brown	0.5	Negative
School	A-7	Door	B	Wood	Intact	Brown	0.1	Negative
School	A-7	Door Frame	C	Metal	Intact	Dark Brown	0.2	Negative
School	A-7	Door Frame	B	Metal	Intact	Dark Brown	0.3	Negative
School	**A-7**	**Window Frame**	**D**	**Wood**	**Intact**	**White**	**5.9**	**Positive**
School	Staff Room	Wall	A	Plaster	Intact	Green	0.1	Negative
School	Staff Room	Wall	B	Plaster	Intact	Green	0.1	Negative
School	Staff Room	Wall	C	Plaster	Intact	Green	0.2	Negative
School	Staff Room	Wall	D	Plaster	Intact	Green	0.0	Negative
School	**Staff Room**	**Chair Rail**	**D**	**Wood**	**Intact**	**Green**	**6.8**	**Positive**
School	**Staff Room**	**Window Frame**	**D**	**Wood**	**Intact**	**White**	**6.2**	**Positive**
School	Staff Room	Window Frame	B	Metal	Intact	White	0.0	Negative
School	Staff RR	Wall	A	Plaster	Intact	Dark Green	0.0	Negative
School	Staff RR	Wall	B	Plaster	Intact	Dark Green	0.1	Negative
School	Staff RR	Wall	C	Plaster	Intact	Dark Green	0.0	Negative
School	Staff RR	Wall	D	Plaster	Intact	Dark Green	0.1	Negative
School	**Staff RR**	**Baseboard**	**D**	**Wood**	**Intact**	**Red**	**7.1**	**Positive**
School	**Staff RR**	**Door**	**C**	**Wood**	**Intact**	**White**	**6.0**	**Positive**

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FIELD DA' EPORT

PROJECT NAME: San Bernardino City Unified School District: Ramona-Alessandro Elementary School

PROJECT NO.: 08170

Building	Area	Component	Location	Substrate	Condition	Color	Pb(mg/cm2)	Results
School	Staff RR	Shelf	C	Wood	Intact	White	0.0	Negative
School	Staff RR	Door Frame	C	Wood	Intact	White	6.1	Positive
School	Staff RR	Shelf Support	C	Wood	Intact	White	0.1	Negative
School	Staff RR	Window Frame	A	Wood	Intact	White	6.8	Positive
School	Staff RR	Porcelain Fixture	N/A	Porcelain	Intact	White	0.1	Negative
School	A-8	Wall	A	Plaster	Intact	White	2.1	Positive
School	A-8	Wall	B	Plaster	Intact	White	2.2	Positive
School	A-8	Wall	C	Plaster	Intact	White	2.0	Positive
School	A-8	Wall	D	Plaster	Intact	White	2.1	Positive
School	A-8	Baseboard	D	Wood	Intact	White	6.1	Positive
School	A-8	Chair Rail	D	Wood	Intact	White	7.0	Positive
School	A-8	Door	B	Wood	Intact	Brown	0.0	Negative
School	A-8	Chalkboard Frame	C	Wood	Intact	White	4.1	Positive
School	A-8	Door Frame	B	Metal	Intact	Dark Brown	0.0	Negative
School	A-8	Window Frame	D	Wood	Intact	White	9.5	Positive
School	A-9	Wall	A	Plaster	Intact	White	3.1	Positive
School	A-9	Wall	B	Plaster	Intact	White	3.0	Positive
School	A-9	Wall	C	Plaster	Intact	White	2.9	Positive
School	A-9	Wall	D	Plaster	Intact	White	3.2	Positive
School	A-9	Baseboard	D	Wood	Intact	White	9.4	Positive
School	A-9	Chair Rail	D	Wood	Intact	White	9.2	Positive
School	A-9	Door	B	Wood	Intact	Brown	0.0	Negative
School	A-9	Chalkboard Frame	A	Wood	Intact	White	9.4	Positive
School	A-9	Door Frame	B	Metal	Intact	Dark Brown	0.3	Negative
School	A-9	Bookshelf	A	Wood	Intact	White	8.7	Positive
School	A-9	Window Frame	D	Wood	Intact	White	9.8	Positive
School	A-9	Lower Cabinet	A	Wood	Intact	White	0.1	Negative
School	A-10	Wall	A	Plaster	Intact	White	2.0	Positive
School	A-10	Wall	B	Plaster	Intact	White	2.1	Positive
School	A-10	Wall	C	Plaster	Intact	White	2.1	Positive
School	A-10	Wall	D	Plaster	Intact	White	2.0	Positive
School	A-10	Baseboard	D	Wood	Intact	White	10.1	Positive
School	A-10	Chair Rail	D	Wood	Intact	White	9.2	Positive
School	A-10	Door	B	Wood	Intact	Brown	0.0	Negative
School	A-10	Chalkboard Frame	A	Wood	Intact	White	6.8	Positive

The HUD/EPA action level for lead-based paint is 1.0 mg/cm2.
Negative readings are below LOD for XRF

FIELD DA EPORT

PROJECT NAME: San Bernardino City Unified School District: Ramona-Alessandro Elementary School

PROJECT NO.: 08170

Building	Area	Component	Location	Substrate	Condition	Color	Pb(mg/cm2)	Results
School	A-10	Door Frame	B	Metal	Intact	Dark Brown	0.3	Negative
School	A-10	Bookshelf	A	Wood	Intact	White	9.6	Positive
School	A-10	Window Frame	D	Wood	Intact	White	7.8	Positive
School	A-10	Lower Cabinet	A	Wood	Intact	White	0.1	Negative
School	A-11	Wall	A	Plaster	Intact	White	2.0	Positive
School	A-11	Wall	B	Plaster	Intact	White	2.1	Positive
School	A-11	Wall	C	Plaster	Intact	White	2.1	Positive
School	A-11	Wall	D	Plaster	Intact	White	2.0	Positive
School	A-11	Baseboard	D	Wood	Intact	White	10.1	Positive
School	A-11	Chair Rail	D	Wood	Intact	White	9.2	Positive
School	A-11	Door	D	Wood	Intact	White	8.2	Positive
School	A-11	Chalkboard Frame	A	Wood	Intact	White	6.8	Positive
School	A-11	Door Frame	D	Metal	Intact	White	7.3	Positive
School	A-11	Bookshelf	A	Wood	Intact	White	9.6	Positive
School	A-11	Window Frame	D	Wood	Intact	White	7.8	Positive
School	A-11	Lower Cabinet	A	Wood	Intact	White	0.1	Negative
School	A-12	Wall	A	Plaster	Intact	White	0.0	Negative
School	A-12	Wall	B	Plaster	Intact	White	0.0	Negative
School	A-12	Wall	C	Plaster	Intact	White	0.0	Negative
School	A-12	Wall	D	Plaster	Intact	White	0.0	Negative
School	A-12	Baseboard	B	Wood	Intact	White	0.0	Negative
School	A-12	Door	A	Wood	Intact	Brown	0.0	Negative
School	A-12	Bookshelf	A	Wood	Intact	White	0.0	Negative
School	A-12	Door Frame	A	Metal	Intact	Dark Brown	0.3	Negative
School	A-12	Window Frame	C	Wood	Intact	White	7.4	Positive
School	A-13	Wall	A	Plaster	Intact	White	5.4	Positive
School	A-13	Wall	B	Plaster	Intact	White	5.4	Positive
School	A-13	Wall	C	Plaster	Intact	White	5.0	Positive
School	A-13	Wall	D	Plaster	Intact	White	5.0	Positive
School	A-13	Baseboard	B	Wood	Intact	White	6.2	Positive
School	A-13	Chair Rail	A	Wood	Intact	White	5.1	Positive
School	A-13	Bookshelf	N/A	Wood	Intact	White	5.2	Positive
School	A-13	Porcelain Sink	B	Porcelain	Intact	White	39.6	Positive
School	A-13	Window Frame	C	Wood	Intact	White	11.8	Positive
School	A-13	Upper Cabinet	B	Wood	Intact	White	5.9	Positive

The HUD/EPA action level for lead-based paint is 1.0 mg/cm2.
Negative readings are below LOD for XRF

FIELD DAT EPORT

PROJECT NAME: San Bernardino City Unified School District: Ramona-Alessandro Elementary School

PROJECT NO.: 08170

Building	Area	Component	Location	Substrate	Condition	Color	Pb(mg/cm2)	Results
A	Girls' RR	Wall	A	Ceramic Tile	Intact	Red/White	0.1	Negative
A	Girls' RR	Wall	B	Ceramic Tile	Intact	Red/White	0.0	Negative
A	Girls' RR	Wall	C	Ceramic Tile	Intact	Red/White	0.0	Negative
A	Girls' RR	Wall	D	Ceramic Tile	Intact	Red/White	0.0	Negative
A	Girls' RR	Porcelain Sink	D	Porcelain	Intact	White	0.0	Negative
A	Girls' RR	Porcelain Fixtures	N/A	Porcelain	Intact	White	0.0	Negative
A	Girls' RR	Ceramic Wall Tile	N/A	Ceramic Tile	Intact	White/Red	0.0	Negative
A	Girls' RR	Ceramic Floor Tile	N/A	Ceramic Tile	Intact	Beige	0.0	Negative
A	Boys' RR	Wall	A	Ceramic Tile	Intact	Grey/Green	0.0	Negative
A	Boys' RR	Wall	B	Ceramic Tile	Intact	Grey/Green	0.0	Negative
A	Boys' RR	Wall	C	Ceramic Tile	Intact	Grey/Green	0.0	Negative
A	Boys' RR	Wall	D	Ceramic Tile	Intact	Grey/Green	0.0	Negative
A	**Boys' RR**	**Door**	**A**	**Wood**	**Intact**	**Brown**	**5.1**	**Positive**
A	Boys' RR	Porcelain Sink	B	Porcelain	Intact	White	0.0	Negative
A	**Boys' RR**	**Door Frame**	**A**	**Wood**	**Intact**	**Brown**	**5.7**	**Positive**
A	Boys' RR	Porcelain Toilet/Urinal	N/A	Porcelain	Intact	White	0.0	Negative
A	**Boys' RR**	**Window Frame**	**B**	**Wood**	**Intact**	**White**	**5.7**	**Positive**
A	Boys' RR	Ceramic Floor Tile	N/A	Ceramic Tile	Intact	Beige	0.0	Negative
A	**A-14**	**Wall**	**A**	**Plaster**	**Intact**	**White**	**1.2**	**Positive**
A	**A-14**	**Wall**	**B**	**Plaster**	**Intact**	**White**	**1.2**	**Positive**
A	**A-14**	**Wall**	**C**	**Plaster**	**Intact**	**White**	**1.3**	**Positive**
A	**A-14**	**Wall**	**D**	**Plaster**	**Intact**	**White**	**1.2**	**Positive**
A	A-14	Door	D	Wood	Intact	Brown	0.1	Negative
A	A-14	Coat Hanger	A	Wood	Intact	White	0.0	Negative
A	A-14	Door Frame	D	Metal	Intact	Dark Brown	0.5	Negative
A	**A-14**	**Window Frame**	**B**	**Wood**	**Intact**	**White**	**4.9**	**Positive**
A	**A-15**	**Wall**	**A**	**Plaster**	**Intact**	**White**	**2.0**	**Positive**
A	**A-15**	**Wall**	**B**	**Plaster**	**Intact**	**White**	**2.1**	**Positive**
A	**A-15**	**Wall**	**C**	**Plaster**	**Intact**	**White**	**2.1**	**Positive**
A	**A-15**	**Wall**	**D**	**Plaster**	**Intact**	**White**	**2.0**	**Positive**
A	A-15	Door	D	Wood	Intact	Brown	0.0	Negative
A	**A-15**	**Chalkboard Frame**	**C**	**Wood**	**Intact**	**White**	**6.8**	**Positive**
A	A-15	Door Frame	D	Metal	Intact	Dark Brown	0.2	Negative
A	**A-15**	**Window Frame**	**B**	**Wood**	**Intact**	**White**	**6.9**	**Positive**
School	Kitchen	Door	D	Wood	Intact	Brown	0.1	Negative

The HUD/EPA action level for lead-based paint is 1.0 mg/cm2.
Negative readings are below LOD for XRF

FIELD DA EPORT

PROJECT NAME: San Bernardino City Unified School District: Ramona-Alessandro Elementary School

PROJECT NO.: 08170

Building	Area	Component	Location	Substrate	Condition	Color	Pb(mg/cm2)	Results
School	Kitchen	Door Frame	D	Metal	Intact	Dark Brown	0.4	Negative
School	Kitchen	Ceramic Floor Tile	N/A	Ceramic Tile	Intact	Red	0.4	Negative
School	C-Wing	Wall	N/A	Wood	Intact	White	0.0	Negative
School	C-Wing	Door	N/A	Wood	Intact	Brown	0.2	Negative
School	**C-Wing**	**Porcelain Sink**	**N/A**	**Porcelain**	**Intact**	**White**	**42.1**	**Positive**
School	**B-Wing**	**Porcelain Sink**	**N/A**	**Porcelain**	**Intact**	**White**	**6.3**	**Positive**
B-Wing	**Men's RR**	**Wall**	**A**	**Ceramic Tile**	**Intact**	**White**	**19.0**	**Positive**
B-Wing	**Men's RR**	**Wall**	**B**	**Ceramic Tile**	**Intact**	**White**	**20.1**	**Positive**
B-Wing	**Men's RR**	**Wall**	**C**	**Ceramic Tile**	**Intact**	**White**	**19.8**	**Positive**
B-Wing	**Men's RR**	**Wall**	**D**	**Ceramic Tile**	**Intact**	**White**	**18.7**	**Positive**
B-Wing	Men's RR	Door	D	Wood	Intact	Brown	0.0	Negative
B-Wing	Men's RR	Porcelain Fixtures	N/A	Porcelain	Intact	White	0.0	Negative
B-Wing	Men's RR	Door Frame	D	Metal	Intact	Dark Brown	0.0	Negative
B-Wing	Men's RR	Ceramic Floor Tile	N/A	Ceramic Tile	Intact	Green	0.0	Negative
B-Wing	**Women's RR**	**Wall**	**A**	**Ceramic Tile**	**Intact**	**White**	**18.2**	**Positive**
B-Wing	**Women's RR**	**Wall**	**B**	**Ceramic Tile**	**Intact**	**White**	**19.0**	**Positive**
B-Wing	**Women's RR**	**Wall**	**C**	**Ceramic Tile**	**Intact**	**White**	**18.7**	**Positive**
B-Wing	**Women's RR**	**Wall**	**D**	**Ceramic Tile**	**Intact**	**White**	**18.4**	**Positive**
B-Wing	Women's RR	Door	D	Wood	Intact	Brown	0.1	Negative
B-Wing	Women's RR	Porcelain Fixtures	N/A	Porcelain	Intact	White	0.0	Negative
B-Wing	Women's RR	Door Frame	D	Metal	Intact	Dark Brown	0.2	Negative
B-Wing	Women's RR	Ceramic Floor Tile	N/A	Ceramic Tile	Intact	Green	0.1	Negative
Exterior	**Boys' RR**	**Wall**	**A**	**Ceramic Tile**	**Intact**	**White**	**18.0**	**Positive**
Exterior	**Boys' RR**	**Wall**	**B**	**Ceramic Tile**	**Intact**	**White**	**19.2**	**Positive**
Exterior	**Boys' RR**	**Wall**	**C**	**Ceramic Tile**	**Intact**	**White**	**20.1**	**Positive**
Exterior	**Boys' RR**	**Wall**	**D**	**Ceramic Tile**	**Intact**	**White**	**20.0**	**Positive**
Exterior	Boys' RR	Door	D	Wood	Intact	Brown	0.1	Negative
Exterior	Boys' RR	Porcelain Fixtures	N/A	Porcelain	Intact	White	0.0	Negative
Exterior	Boys' RR	Door Frame	D	Metal	Intact	Dark Brown	0.1	Negative
Exterior	Boys' RR	Ceramic Floor Tile	N/A	Ceramic Tile	Intact	Green	0.0	Negative
Exterior	**Girls' RR**	**Wall**	**A**	**Ceramic Tile**	**Intact**	**White**	**17.0**	**Positive**
Exterior	**Girls' RR**	**Wall**	**B**	**Ceramic Tile**	**Intact**	**White**	**18.2**	**Positive**
Exterior	**Girls' RR**	**Wall**	**C**	**Ceramic Tile**	**Intact**	**White**	**18.8**	**Positive**
Exterior	**Girls' RR**	**Wall**	**D**	**Ceramic Tile**	**Intact**	**White**	**20.2**	**Positive**
Exterior	Girls' RR	Door	D	Wood	Intact	Brown	0.0	Negative

The HUD/EPA action level for lead-based paint is 1.0 mg/cm2.
Negative readings are below LOD for XRF

FIELD DA EPORT

PROJECT NAME: San Bernardino City Unified School District: Ramona-Alessandro Elementary School

PROJECT NO.: 08170

Building	Area	Component	Location	Substrate	Condition	Color	Pb(mg/cm2)	Results
Exterior	Girls' RR	Porcelain Fixtures	N/A	Porcelain	Intact	White	0.0	Negative
Exterior	Girls' RR	Door Frame	D	Metal	Intact	Dark Brown	0.0	Negative
Exterior	Girls' RR	Ceramic Floor Tile	N/A	Ceramic Tile	Intact	Green	0.2	Negative
School	D-1	Wall	A	Metal	Intact	White	0.1	Negative
School	D-1	Wall	B	Metal	Intact	White	0.1	Negative
School	D-1	Wall	C	Metal	Intact	White	0.0	Negative
School	D-1	Wall	D	Metal	Intact	White	0.1	Negative
School	D-1	Door	D	Metal	Intact	Dark Brown	0.0	Negative
School	D-1	Door Frame	D	Metal	Intact	Dark Brown	0.0	Negative
Kindergarten	**B-4**	**Porcelain Sink**	**N/A**	**Porcelain**	**Intact**	**White**	**5.0**	**Positive**
Kindergarten	**Boys' RR**	**Wall**	**A**	**Ceramic Tile**	**Intact**	**White**	**17.0**	**Positive**
Kindergarten	**Boys' RR**	**Wall**	**B**	**Ceramic Tile**	**Intact**	**White**	**18.4**	**Positive**
Kindergarten	**Boys' RR**	**Wall**	**C**	**Ceramic Tile**	**Intact**	**White**	**20.6**	**Positive**
Kindergarten	**Boys' RR**	**Wall**	**D**	**Ceramic Tile**	**Intact**	**White**	**21.2**	**Positive**
Kindergarten	Boys' RR	Door	D	Wood	Intact	Brown	0.0	Negative
Kindergarten	Boys' RR	Porcelain Fixtures	N/A	Porcelain	Intact	White	0.1	Negative
Kindergarten	Boys' RR	Door Frame	D	Metal	Intact	Dark Brown	0.1	Negative
Kindergarten	Boys' RR	Ceramic Floor Tile	N/A	Ceramic Tile	Intact	Green	0.2	Negative
Kindergarten	**Girls' RR**	**Wall**	**A**	**Ceramic Tile**	**Intact**	**White**	**16.4**	**Positive**
Kindergarten	**Girls' RR**	**Wall**	**B**	**Ceramic Tile**	**Intact**	**White**	**18.8**	**Positive**
Kindergarten	**Girls' RR**	**Wall**	**C**	**Ceramic Tile**	**Intact**	**White**	**19.2**	**Positive**
Kindergarten	**Girls' RR**	**Wall**	**D**	**Ceramic Tile**	**Intact**	**White**	**20.3**	**Positive**
Kindergarten	Girls' RR	Door	D	Wood	Intact	Brown	0.1	Negative
Kindergarten	Girls' RR	Porcelain Fixtures	N/A	Porcelain	Intact	White	0.0	Negative
Kindergarten	Girls' RR	Door Frame	D	Metal	Intact	Dark Brown	0.0	Negative
Kindergarten	Girls' RR	Ceramic Floor Tile	N/A	Ceramic Tile	Intact	Green	0.1	Negative
School	**B-5**	**Porcelain Sink**	**N/A**	**Porcelain**	**Intact**	**White**	**5.2**	**Positive**
School	**B-5, Boys' RR**	**Wall**	**A**	**Ceramic Tile**	**Intact**	**White**	**16.4**	**Positive**
School	**B-5, Boys' RR**	**Wall**	**B**	**Ceramic Tile**	**Intact**	**White**	**17.8**	**Positive**
School	**B-5, Boys' RR**	**Wall**	**C**	**Ceramic Tile**	**Intact**	**White**	**22.1**	**Positive**
School	**B-5, Boys' RR**	**Wall**	**D**	**Ceramic Tile**	**Intact**	**White**	**20.6**	**Positive**
School	B-5, Boys' RR	Door	D	Wood	Intact	Brown	0.2	Negative
School	B-5, Boys' RR	Porcelain Fixtures	N/A	Porcelain	Intact	White	0.1	Negative
School	B-5, Boys' RR	Door Frame	D	Metal	Intact	Dark Brown	0.1	Negative
School	B-5, Boys' RR	Ceramic Floor Tile	N/A	Ceramic Tile	Intact	Green	0.0	Negative

The HUD/EPA action level for lead-based paint is 1.0 mg/cm2.
Negative readings are below LOD for XRF

FIELD DAT EPORT

PROJECT NAME: San Bernardino City Unified School District: Ramona-Alessandro Elementary School

PROJECT NO.: 08170

Building	Area	Component	Location	Substrate	Condition	Color	Pb(mg/cm2)	Results
School	**B-5, Girls' RR**	**Wall**	**A**	**Ceramic Tile**	**Intact**	**White**	**16.2**	**Positive**
School	**B-5, Girls' RR**	**Wall**	**B**	**Ceramic Tile**	**Intact**	**White**	**14.8**	**Positive**
School	**B-5, Girls' RR**	**Wall**	**C**	**Ceramic Tile**	**Intact**	**White**	**20.4**	**Positive**
School	**B-5, Girls' RR**	**Wall**	**D**	**Ceramic Tile**	**Intact**	**White**	**21.8**	**Positive**
School	B-5, Girls' RR	Door	D	Wood	Intact	Brown	0.2	Negative
School	B-5, Girls' RR	Porcelain Fixtures	N/A	Porcelain	Intact	White	0.1	Negative
School	B-5, Girls' RR	Door Frame	D	Metal	Intact	Dark Brown	0.2	Negative
School	B-5, Girls' RR	Ceramic Floor Tile	N/A	Ceramic Tile	Intact	Green	0.1	Negative

The HUD/EPA action level for lead-based paint is 1.0 mg/cm2.
Negative readings are below LOD for XRF

Appendix E

DHS Form 8552

LEAD HAZARD EVALUATION REPORT

Section 1—Date of Lead Hazard Evaluation 07/10/08

Section 2—Type of Lead Hazard Evaluation (Check one box only)

☑ Lead inspection ☐ Risk assessment ☐ Clearance inspection ☐ Other (specify) _____

Section 3—Structure Where Lead Hazard Evaluation Was Conducted

Address [number, street, apartment (if applicable)]	City	County	ZIP code
Ramona-Alessandro ES - 670 Ramona Avenue	San Bernardino	San Bernardino	92411

Construction date (year) of structure	Type of structure (check one box only)
01/01/60	☐ Single family dwelling ☐ Multi-unit building ☐ Child-occupied facility ☑ Other (specify) School

Section 4—Owner of Structure (If business/agency, list contact person)

Name	Telephone number
San Bernardino City Unified School District	(909) 381-1238

Address [number, street, apartment (if applicable)]	City	State	ZIP code
777 North F Street	San Bernardino	California	92401

Section 5—Results of Lead Hazard Evaluation (Check one box only)

☐ **No lead-based paint detected.**
A lead inspection was conducted following the procedures outlined in Title 17, California Code of Regulations, Division 1, Chapter 8. No lead-based paint was detected during this lead inspection. This structure is found to be lead-based paint free.

☐ **No lead hazards detected.**
Lead hazard evaluation was conducted following the procedures outlined in Title 17, California Code of Regulations, Division 1, Chapter 8. No lead hazards were detected.

☑ **Lead-based paint and/or lead hazards detected.**
Lead hazard evaluation was conducted following the procedures outlined in Title 17, California Code of Regulations, Division 1, Chapter 8. Lead-based paint and/or lead hazards were detected.

Section 6—Individual Conducting Lead Hazard Evaluation

Name	Telephone number
David Tillema/Pacific Environmental	(800) 303-6484

Address [number, street, apartment (if applicable)]	City	State	ZIP code
28202 Cabot Road, Suite 300	Laguna Niguel	California	92677

Brand name and serial number of any portable x-ray fluorescence (XRF) instrument used (if applicable)

EDAX Map 4 Serial Number M41590

DHS certification number	Signature	Date
17740	➤	07/28/07

Section 7—Attachments

A. A foundation diagram or sketch of the structure indicating the specific locations of each lead hazard or presence of lead-based paint;

B. Each testing method, device, and sampling procedure used;

C. All data collected, including quality control data, laboratory results, including laboratory name, address, and phone number.

First copy and attachments retained by inspector

Second copy and attachments retained by owner

Third copy only (no attachments) mailed to:
Department of Health Services
Childhood Lead Poisoning Prevention Branch
Reports
1515 Clay Street, No. 1801
Oakland, CA 94612
FAX (510) 622-5002

Appendix F

XRF Performance Characteristics Sheet

Performance Characteristic Sheet

EFFECTIVE DATE: **June 26, 1996** **EDITION NO.: 3**

MANUFACTURER AND MODEL:

Make: *Scitec Corporation*
Model: *MAP-4*
Source: ^{57}Co
Note: This sheet supersedes all previous sheets for the XRF instrument of the make, model, and source shown above.

FIELD OPERATION GUIDANCE

OPERATING PARAMETERS

Test mode, Screen mode, or Unlimited mode.

XRF CALIBRATION CHECK LIMITS

0.6 to 1.2 mg/cm^2 (inclusive)

SUBSTRATE CORRECTION:

When using Unlimited mode, substrate correction recommended for:

None

When using Unlimited mode, substrate correction <u>not</u> recommended for:

Brick, Concrete, Drywall, Metal, Plaster, and Wood

When using Screen or Test mode, for XRF results below 4.0 mg/cm^2, substrate correction recommended for:

Drywall, Metal, and Wood

When using Screen or Test mode, substrate correction <u>not</u> recommended for:

Brick, Concrete, and Plaster

INCONCLUSIVE RANGE OR THRESHOLD

UNLIMITED MODE READING DESCRIPTION	SUBSTRATE	INCONCLUSIVE RANGE (mg/cm^2)
Results not corrected for substrate bias for unlimited mode readings	Brick	0.91 to 1.19
	Concrete	0.91 to 1.19
	Drywall	0.91 to 1.19
	Metal	0.91 to 1.19
	Plaster	0.91 to 1.19
	Wood	0.91 to 1.19

SCREEN MODE READING DESCRIPTION	SUBSTRATE	INCONCLUSIVE RANGE (mg/cm²)
Results corrected for substrate bias for screen mode readings on drywall, metal, and wood substrates only	Brick	0.91 to 1.09
	Concrete	0.91 to 1.09
	Drywall	0.91 to 1.39
	Metal	0.91 to 1.19
	Plaster	0.91 to 1.09
	Wood	0.91 to 1.29

TEST MODE READING DESCRIPTION	SUBSTRATE	THRESHOLD (mg/cm²)	INCONCLUSIVE RANGE (mg/cm²)
Readings corrected for substrate bias for test mode readings on drywall, metal, and wood substrates only	Brick	0.9	None
	Concrete	0.9	None
	Drywall	None	0.91 to 1.39
	Metal	None	0.91 to 1.09
	Plaster	0.9	None
	Wood	None	0.91 to 1.29

BACKGROUND INFORMATION

EVALUATION DATA SOURCE AND DATE

This sheet is supplemental information to be used in conjunction with Chapter 7 of the HUD *Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing* ("HUD Guidelines"). Performance parameters shown on this sheet are calculated from an EPA/HUD evaluation using archived building components. Testing was conducted on approximately 150 test locations. All of the test locations were tested in February 1996 using two different instruments. One instrument had a new source installed in July 1994 and its strength at the time of testing was calculated as 9.4 mCi. The other instrument had a new source installed in September 1994 and its strength at the time of testing was calculated as 10.6 mCi.

OPERATING PARAMETERS

Performance parameters shown in this sheet are applicable only when properly operating the instrument using the manufacturer's instructions and procedures described in Chapter 7 of the HUD Guidelines.

XRF CALIBRATION CHECK:

The calibration of the XRF instrument should be checked using the paint film nearest 1.0 mg/cm^2 in the NIST Standard Reference Material (SRM) used (e.g., for NIST SRM 2579, use the 1.02 mg/cm^2 film).

If readings are outside the acceptable calibration check range, follow the manufacturer's instructions to bring the instruments into control before XRF testing proceeds

SUBSTRATE CORRECTION VALUE COMPUTATION

Chapter 7 of the HUD Guidelines provides guidance on correcting XRF results for substrate bias. Supplemental guidance for using the paint film nearest 1.0 mg/cm^2 for substrate correction is provided:

XRF results are corrected for substrate bias by subtracting from each XRF result a correction value determined separately in each house for single-family housing or in each development for multifamily housing, for each substrate. The correction value is an average of XRF readings taken over the NIST SRM paint film nearest to 1.0 mg/cm^2 at test locations that have been scraped bare of their paint covering. Compute the correction values as follows:

- Using the same XRF instrument, take three readings on a <u>bare</u> substrate area covered with the

NIST SRM paint film nearest 1 mg/cm^2. Repeat this procedure by taking three more readings on a second bare substrate area of the same substrate covered with the NIST SRM.

- Compute the correction value for each substrate type where XRF readings indicate substrate correction is needed by computing the average of all six readings as shown below.

  For each substrate type (the 1.02 mg/cm^2 NIST SRM is shown in this example; use the actual lead loading of the NIST SRM used for substrate correction):

$$\left.\begin{matrix}\text{Correction}\\ \text{Value}\end{matrix}\right\} = \frac{1^{st} + 2^{nd} + 3^{rd} + 4^{th} + 5^{th} + 6^{th}\ \text{Reading}}{6} - 1.02\,mg/cm^2$$

- Repeat this procedure for each substrate requiring substrate correction in the house or housing development.

EVALUATING THE QUALITY OF XRF TESTING

Randomly select ten testing combinations for retesting from each house or from two randomly selected units in multifamily housing. Use either 15-second readings or 60-second readings.

Conduct XRF retesting at the ten testing combinations selected for retesting.

Determine if the XRF testing in the units or house passed or failed the test by applying the steps below.

Compute the Retest Tolerance Limit by the following steps:

Determine XRF results for the original and retest XRF readings. Do not correct the original or retest results for substrate bias. In single-family and multi-family housing, a result is defined as a single reading. Therefore, there will be ten original and ten retest XRF results for each house or for the two selected units.

Calculate the average of the original XRF result and retest XRF result for each testing combination.

Square the average for each testing combination.

Add the ten squared averages together. Call this quantity C.

Multiply the number C by 0.0072. Call this quantity D.

Add the number 0.032 to D. Call this quantity E.

Take the square root of E. Call this quantity F.

Multiply F by 1.645. The result is the Retest Tolerance Limit.

Compute the average of all ten original XRF results.

Compute the average of all ten retest XRF results.

Find the absolute difference of the two averages.

If the difference is less than the Retest Tolerance Limit, the inspection has passed the retest. If the difference of the overall averages equals or exceeds the Retest Tolerance Limit, this procedure should be repeated with ten new testing combinations. If the difference of the overall averages is equal to or greater than the Retest Tolerance Limit a second time, then the inspection should be considered deficient.

Use of this procedure is estimated to produce a spurious result approximately 1% of the time. That is, results of this procedure will call for further examination when no examination is warranted in approximately 1 out of 100 dwelling units tested.

TESTING TIMES

For screen, test, and confirm modes, the MAP 4 instrument tests until a K-shell result is obtained relative to a level of precision. A result is "positive", "negative" or "retest" as displayed by indicator lights. For the unlimited mode, the MAP 4 instrument tests until a K-shell result is indicated relative to an action level (1.0 mg/cm ^{2} for archive testing) and the current precision, or until the the reading is terminated by releasing the trigger. A few unlimited mode readings were terminated because they exceeded the two-minute limit used for archive testing. The following tables provide testing time information for three testing modes. Insufficient information is available to provide this information for confirm mode. All times have been scaled to match an initial 12 miC source. Note that source strength and factors such as substrate may affect testing times.

UNLIMITED MODE TESTING TIMES (Seconds)						
SUBSTRATE*	ALL DATA			MEDIAN FOR LABORATORY-MEASURED LEAD LEVELS (mg/cm^2)		
	25th Percentile	Median	75th Percentile	Pb < 0.25	0.25 ≤ Pb < 1.0	1.0 ≤ Pb
Wood Drywall	3	4	6	4	13	3
Metal	3	4	8	4	9	3
Brick Concrete Plaster	4	5	8	6	6	3

*The general calibration was used for wood, drywall, brick, concrete, plaster. Steel calibration was used for metal. (There are no aluminum samples in the archive facility).

SCREEN MODE TESTING TIMES (Seconds)						
SUBSTRATE*	ALL DATA			MEDIAN FOR LABORATORY-MEASURED LEAD LEVELS (mg/cm^2)		
	25th Percentile	Median	75th Percentile	Pb < 0.25	0.25 ≤ Pb < 1.0	1.0 ≤ Pb
Wood Drywall	4	6	7	5	6	7
Metal	4	5	6	5	5	5
Brick Concrete Plaster	11	11	13	11	11	11

*The general calibration was used for wood, drywall, brick, concrete, plaster. Steel calibration was used for metal. (There are no aluminum samples in the archive facility).

TEST MODE TESTING TIMES (Seconds)						
SUBSTRATE	ALL DATA			MEDIAN FOR LABORATORY-MEASURED LEAD LEVELS (mg/cm²)		
	25th Percentile	Median	75th Percentile	Pb < 0.25	0.25 ≤ Pb < 1.0	1.0 ≤ Pb
Wood Drywall	17	22	27	21	20	28
Metal	13	20	23	20	20	20
Brick Concrete Plaster	41	42	52	41	46	43

*The general calibration was used for wood, drywall, brick, concrete, plaster. Steel calibration was used for metal. (There are no aluminum samples in the archive facility).

BIAS AND PRECISION

Do not use these bias and precision data to correct for substrate bias. These bias and precision data were computed without substrate correction from samples with laboratory-measured lead levels less than 4.0 mg/cm² lead. There were 15 testing locations taken in the screen mode with a laboratory-measured lead levels equal to or greater than 4.0 mg/cm² lead. None of these had XRF readings less than 1.0 mg/cm². There were 15 testing locations taken in the test mode with a laboratory-measured lead levels equal to or greater than 4.0 mg/cm² lead. None of these had XRF readings less than 1.0 mg/cm². There were not any testing locations taken in the confirm mode with a laboratory-measured lead levels equal to or greater than 4.0 mg/cm² lead. There were 15 testing locations taken in the unlimited mode with a laboratory-measured lead levels equal to or greater than 4.0 mg/cm² lead. None of these had XRF readings less than 1.0 mg/cm². All testing was done in February 1996 with two different instruments. The following data are for illustrative purposes only. Actual bias must be determined on the site. Inconclusive ranges provided above already account for bias and precision.

SCREEN MODE READING MEASURED AT	SUBSTRATE	BIAS (mg/cm²)	PRECISION* (mg/cm²)
0.0 mg/cm²	Brick	-0.1	0.3
	Concrete	-0.1	0.3
	Drywall	0.1	0.2
	Metal	0.1	0.3
	Plaster	-0.1	0.3
	Wood	0.0	0.2
0.5 mg/cm²	Brick	0.0	0.3
	Concrete	0.0	0.3
	Drywall	0.3	0.4
	Metal	0.2	0.3
	Plaster	0.0	0.3
	Wood	0.2	0.4
1.0 mg/cm²	Brick	0.1	0.4
	Concrete	0.1	0.4
	Drywall	0.5	0.6
	Metal	0.3	0.3
	Plaster	0.1	0.4
	Wood	0.4	0.6

2.0 mg/cm²	Brick	0.4	0.5
	Concrete	0.4	0.5
	Drywall	0.9	0.8
	Metal	0.5	0.3
	Plaster	0.4	0.5
	Wood	0.7	0.8

*Precision at 1 standard deviation

TEST MODE READING MEASURED AT	SUBSTRATE	BIAS (mg/cm²)	PRECISION* (mg/cm²)
0.0 mg/cm²	Brick	-0.1	0.2
	Concrete	-0.1	0.2
	Drywall	0.1	0.1
	Metal	0.1	0.2
	Plaster	-0.1	0.2
	Wood	0.0	0.1
0.5 mg/cm²	Brick	-0.1	0.3
	Concrete	-0.1	0.3
	Drywall	0.3	0.4
	Metal	0.2	0.2
	Plaster	-0.1	0.3
	Wood	0.2	0.4
1.0 mg/cm²	Brick	-0.1	0.3
	Concrete	-0.1	0.3
	Drywall	0.5	0.6
	Metal	0.3	0.2
	Plaster	-0.1	0.3
	Wood	0.4	0.6
2.0 mg/cm²	Brick	0.0	0.4
	Concrete	0.0	0.4
	Drywall	1.0	0.8
	Metal	0.5	0.2
	Plaster	0.0	0.4
	Wood	0.8	0.8

*Precision at 1 standard deviation

CLASSIFICATION OF RESULTS

XRF results are classified as positive if they are greater than the upper boundary of the inconclusive range, and negative if they are less than the lower boundary of the inconclusive range, or inconclusive if in between. The inconclusive range includes both its upper and lower bounds. Earlier editions of this *XRF Performance Characteristics Sheet* did not include both bounds of the inconclusive range as "inconclusive." While this edition of the Performance Characteristics Sheet uses a different system, the specific XRF readings that are considered positive, negative, or inconclusive for a given XRF model and substrate remain unchanged, so previous inspection results are not affected.

DOCUMENTATION

A document titled *Methodology for XRF Performance Characteristic Sheets* provides an explanation of the statistical methodology used to construct the data in the sheets, and provides empirical results from using the recommended inconclusive ranges or thresholds for specific XRF instruments. For a copy of this document call the National Lead Information Center Clearinghouse at 1-800-424-LEAD.

This XRF Performance Characteristics Sheet is a joint product of the U.S. Environmental Protection Agency (EPA) and the U.S. Department of Housing and Urban Development (HUD). The issuance of this sheet does not constitute rulemaking. The information provided here is intended solely as guidance to be used in conjunction with Chapter 7, Lead-Based Paint Inspection, of the *Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing*. EPA and HUD reserve the right to revise this guidance. Please address questions and comments on this sheet to: Director, Office of Lead Hazard Control (L), U.S. Department of Housing and Urban Development, 451 Seventh St, S.W., Washington, DC 20410.