aqua science engineers inc.

January 15, 2004

SL 2537

FINAL REPORT OF ENVIRONMENTAL REMEDIATION ACTIVITIES at the Hall Property 1455 5th Street Oakland, California

Submitted by:
AQUA SCIENCE ENGINEERS, INC.
208 West El Pintado Road
Danville, CA 94526
(925) 820-9391

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1.0 INTRODUCTION

This report details the work performed by Aqua Science Engineers, Inc. (ASE) as it relates to the assessment, overexcavation, and offsite disposal of lead-contaminated soil at 1455 5th Street in Oakland, California (Figure 1). The assessment and excavation activities were initiated by the property owners, Mr. Andy Hall and Ms. Jean Stephan Hall.

2.0 BACKGROUND INFORMATION

The subject site existed as a vacant property with two wooden structures, a concrete pad, and areas of weed covered dirt. The site is within a mixed residential and commercial area, just south of the 5th Street BART Station. The site is completely fenced.

2.1 July 2001

In July 2001, a prospective purchaser of the property hired Lowney Associates of Mountain View, California to conduct a limited soil assessment. Two soil borings were drilled, and analysis of the soil samples identified elevated lead concentrations up to 410 parts per million (ppm).

2.2 January 2002

In January 2002, ASE was hired by the property owners to perform a subsurface soil assessment at the site to confirm the results of the Lowney assessment. On January 4, 2002, ASE drilled soil borings B-1 and B-2 at the site using a hand auger. Vironex, Inc. of San Leandro, California drilled soil borings B-3, B-4 and B-5 using a Geoprobe hydraulic sampling rig (Figure 2). Soil samples were collected from each boring at 12-inches, 24-inches, 36-inches and 48-inches below ground surface (bgs). The 12-inch and 24-inch soil samples from each boring were analyzed at a CA-DHS certified laboratory for hydrocarbons and total lead. Several of the 12-inch deep soil samples contained elevated concentration of total lead, ranging from 390 ppm to 1,800 ppm. All of the 24-inch deep soil samples contained only very low concentrations of total lead. None of the soil samples contained hydrocarbons at or above levels of concern.

Based on the data rendered during the January 2002 site assessment, it was obvious that the site contained soil contaminated with lead, and that excavation and off-site disposal would be required.

2.3 March 2003

In March 2003, soil borings B-6 through B-20 were drilled in equally-spaced locations on the property and within the rear building. Vironex, Inc. of San Leandro, California drilled twelve of the soil borings using a Geoprobe hydraulic sampling rig. ASE used a hand auger to drill soil borings B-12, B-16 and B-20 (Figure 2). The soil samples collected from 1 and 2-feet from all fifteen soil borings were analyzed by STL San Francisco (STL) of Pleasanton, California (CA DHS #1094) for total lead by EPA Method 6010. Based on the results of these samples, the 3-foot soil sample from three of the soil borings and the 4-foot sample from one of the soil borings were also analyzed for total lead. The results of this investigation concluded that soil from the surface to approximately 18-inches below grade over the majority of the property contained elevated concentrations of total lead. See Table One and Figure 2.

ASE prepared a report dated April 28, 2003 that recommended removal of all lead-impacted soil above the Risk-Based Screening Level (RBSL) for surface soil with residential use permitted as presented in the California Regional Water Quality Control Board, San Francisco Bay Region "Application of Risk-Based Screening Levels and Decision Making to Sites with Impacted Soil and Groundwater" document dated December 2001. The cleanup goal for this project was 200 parts per million (ppm).

ASE received a letter dated September 21, 2003 from the Alameda County Health Care Services Agency (ACHCSA) stating that the workplan had been approved (Appendix A). ASE then applied for and received a building demolition permit from the City of Oakland to demolish and remove the two structures on the property (Appendix A).

3.0 ASBESTOS AND LEAD SURVEY OF BUILDINGS

ProTech Consulting and Engineering of Redwood City, California was subcontracted by ASE to perform a lead-based paint and asbestos study of the building materials of the two structures on site. Their report concluded that some of the building materials contained both lead-based paint and asbestos. A copy of their report is attached in Appendix B.

4.0 SITE DEMOLITION

Prior to site mobilization, all utilities were cut, capped or removed by PG&E. Iconco, Inc. of Oakland, California was subcontracted by ASE to perform all of the building and surface material demolition and disposal.

Between November 3 and November 5, 2003, all of the building materials that contained lead-based paint and/or asbestos were removed by Iconco's subcontracted crew and disposed of properly.

The buildings and concrete surfaces were then removed and disposed of at a local landfill.

5.0 OVEREXCAVATION AND SOIL OFFHAULING ACTIVITIES

On November 6, 2003, all field personnel reviewed and signed the site specific health and safety plan prepared by Mr. Kevin Braun, CIH, of Earth Safety Dynamics. Mr. Braun was responsible for health and safety issues relating to the excavation and stockpiling activities. A copy of the personnel and fenceline air sampling report confirming safe working conditions is attached in Appendix C.

Using the analytical data of the prior soil borings, the area of excavation was outlined, and depths were measured and confirmed during the excavation process. For the most part, the soil was loaded directly onto the trucks as it was removed from the excavation. While waiting for the trucks to return, excavated soil was stockpiled.

The excavated soil was loaded onto Roger's Trucking trucks and deposited at Pier 96 in San Francisco. The soil was then loaded onto rail-cars and delivered to the ECDC facility in East Carbon, Utah where it was accepted as hazardous waste. See Appendix D for copies of the manifests. A total of 14 truckloads of soil were removed from the subject site, weighing 349.54 tons.

6.0 SOIL SAMPLE COLLECTION AND ANALYSES

When the excavation activities discussed above were completed, eight (8) bottom of excavation soil samples were collected (XCON-A through XCON-H) to confirm that all of the soil containing total lead above 200 ppm was removed (see Figure 3). The samples were collected from the bottom of the excavation at depths ranging from 18-inches to 48-inches below ground surface. Soil from the bottom of the excavation was placed directly into brass sample tubes by using the tube itself as a collection device. The ends were then covered with Teflon tape and plastic end caps. Each sample was then discretely labeled and placed into an ice chest containing wet ice. The soil samples were submitted to McCampbell Analytical of Pacheco, California (CA DHS #1644) under chain of custody

procedures for analysis of total lead by EPA Method 6010 on RUSH turnaround.

Analytical results of all eight confirmation soil samples confirmed residual total lead concentrations well below the target clean-up goal of 200 ppm. The analytical results are tabulated in Table Two, and the certified analytical results with chain of custody documents are presented in Appendix E.

7.0 BACKFILLING AND RESURFACING

The excavation was backfilled with clean, import material on November 17, 2003 by Iconco and ASE personnel.

8.0 CONCLUSIONS AND RECOMMENDATIONS

Soil containing elevated concentrations of lead were removed from the subject site and disposed of at the ECDC facility in East Carbon, Utah where it was accepted as hazardous waste. Confirmation soil samples collected from the bottom of the excavation confirms that all of the lead-bearing soil was removed to levels acceptable for residential development.

9.0 REPORT LIMITATIONS

The results of the assessment activities described within represent conditions at the time of the soil sampling, at the specific locations where the samples were collected, and for the specific parameters analyzed by the laboratory.

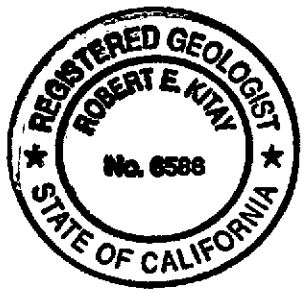
This report does not fully characterize the site for contamination resulting from unknown sources or for parameters not analyzed by the laboratory. All of the laboratory work cited in this report was prepared under the direction of an independent CAL-DHS certified laboratory. The independent laboratory is solely responsible for the contents and conclusions of the chemical analysis data.

Should you have any questions or comments, please call us at (925) 820-9391.

Respectfully submitted,

AQUA SCIENCE ENGINEERS, INC.

David Allen
Senior Project Manager



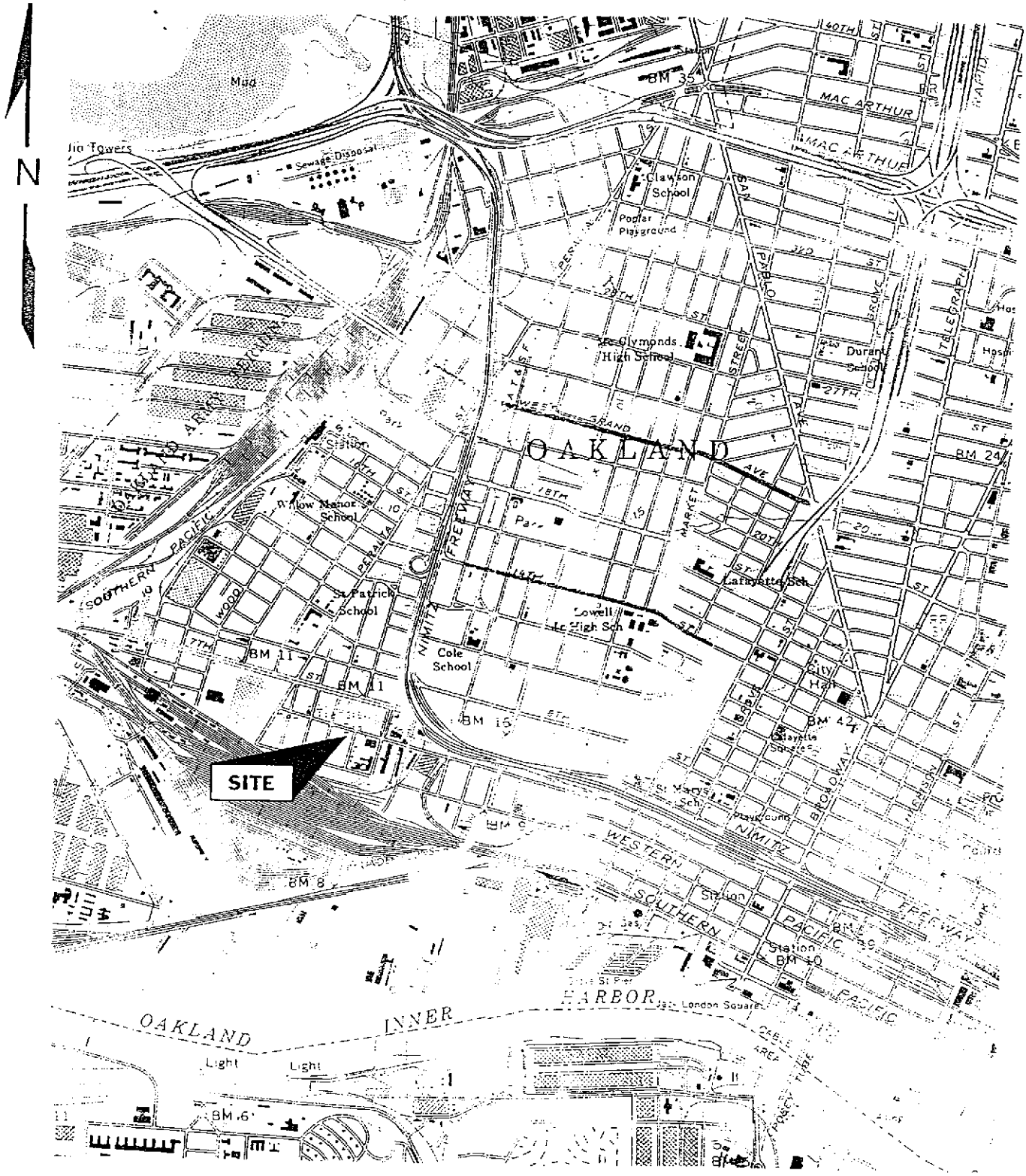
Robert E. Kitay, R.G., R.E.A.
Senior Geologist

cc: Mr. Andy Hall, Chemical Compounding Company, 791 66th Avenue, Oakland, CA 94621

Ms. Jean Stephan Hall, 277 Castle Hill Ranch Road, Walnut Creek, CA 94595.

Mr. Larry Jones, CB Richard Ellis, Inc., 155 Grand Avenue, Suite 100, Oakland, CA 94612

Mr. Barney Chan, Alameda County Health Care Services Agency, 1131 Harbor Bay Parkway, Suite 250, Alameda, CA 94502

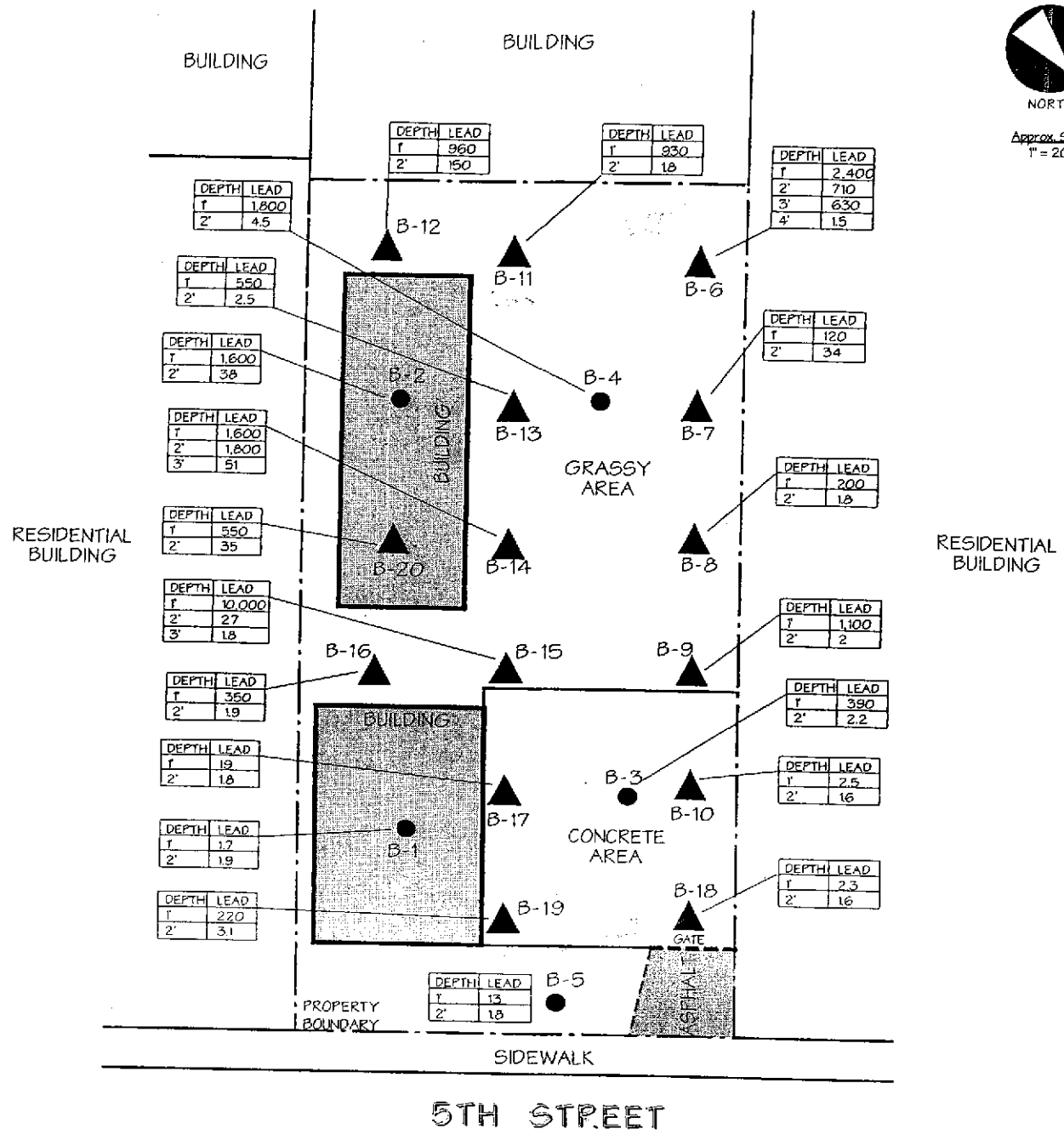


Scale: 1 inch = 2,000 feet

SITE LOCATION MAP

1455 5th Street
Oakland, CA 94621

Aqua Science Engineers | Figure 1



LEGEND

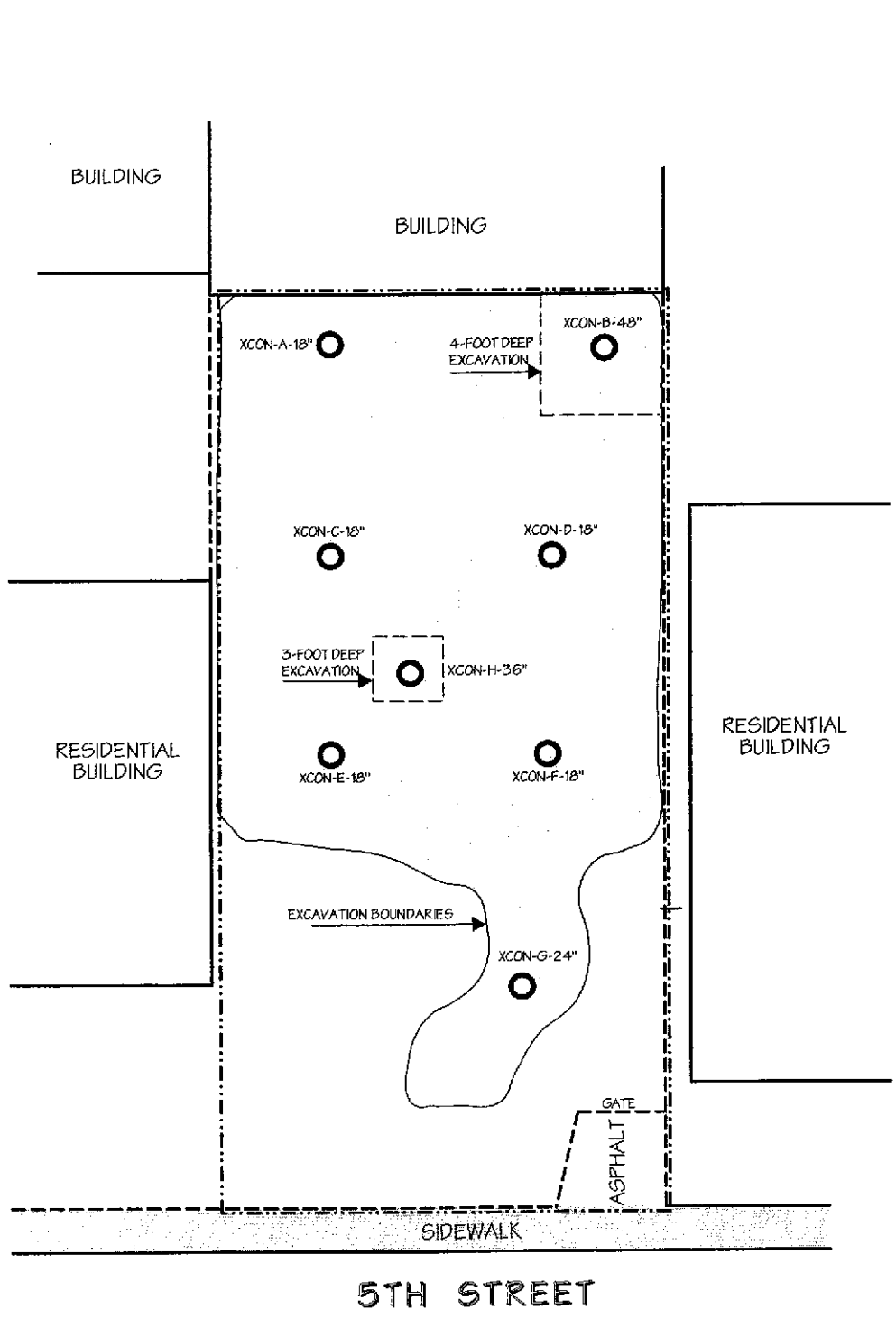
B-1 ● PREVIOUS BORING LOCATION

B-20 ▲ CURRENT BORING LOCATION

SOIL BORING LOCATION MAP

VACANT PROPERTY
1455 5TH STREET
OAKLAND, CA

AQUA SCIENCE ENGINEERS | FIGURE 2



LEGEND

XCON-H-36" CONFIRMATION SOIL SAMPLE LOCATION

CONFIRMATION SOIL SAMPLING MAP

VACANT PROPERTY
1455 5TH STREET
OAKLAND, CA

AQUA SCIENCE ENGINEERS | FIGURE 3

TABLE ONE

Soil Boring Analytical Results
Total Lead Concentrations In Soil
Hall Property
1455 5th Street, Oakland, California
All Results in Parts Per Million

SAMPLE ID.	TOTAL LEAD
B-1-1'	1.7
B-1-2'	1.9
B-2-1'	1600
B-2-2'	38
B-3-1'	390
B-3-2'	2.2
B-4-1'	1800
B-4-2'	4.5
B-5-1'	13
B-5-2'	1.8
B-6-1'	2400
B-6-2'	710
B-6-3'	630
B-6-4'	1.5
B-7-1'	120
B-7-2'	34
B-8-1'	200
B-8-2'	1.8
B-9-1'	1100
B-9-2'	2.0
B-10-1'	2.5
B-10-2'	1.6
B-11-1'	930
B-11-2'	1.8
B-12-1'	960
B-12-2'	150
B-13-1'	550
B-13-2'	2.5
B-14-1'	1600
B-14-2'	1800
B-14-3'	51
B-15-1'	10000
B-15-2'	27
B-15-3'	1.8
B-16-1'	350
B-16-2'	1.9
B-17-1'	19
B-17-2'	1.8
B-18-1'	2.3
B-18-2'	1.6
B-19-1'	220
B-19-2'	3.1
B-20-1'	550
B-20-2'	35
EPA Method	6010

TABLE TWO

Confirmation Soil Samples Results

Total Lead Concentrations In Soil

Hall Property

1455 5th Street, Oakland, California

All Results in Parts Per Million

SAMPLE IDENTIFICATION	TOTAL LEAD
XCON-A-18"	< 5.0
XCON-B-48"	< 5.0
XCON-C-18"	85
XCON-D-18"	< 5.0
XCON-E-18"	< 5.0
XCON-F-18"	< 5.0
XCON-G-24"	< 5.0
XCON-H-36"	< 5.0
EPA Method	6010

APPENDIX A

ACHCSA Approval Letter
Dated September 21, 2003
and
City of Oakland Demolition Permit

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL PROTECTION
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 567-6700
FAX (510) 337-9335

September 21, 2003

Mr. Andy and Mrs. Jean Hall
791 66th Ave.
Oakland, CA 94621-3713

Dear Mr. and Mrs. Hall:

Subject: Environmental Case No. RO0002537, 1455 5th St., Oakland, CA 94607

Alameda County Environmental Health staff has reviewed the case file for the referenced site including the Aqua Science Engineers (ASE) *August 8, 2003 Workplan for Excavation and Offsite Disposal of Lead-Bearing Soil*. The work plan proposes the excavation of specific areas of the property to defined depths and the collection and analysis of confirmation soil samples for lead. Our office concurs with the work plan, however, please observe the following technical comment when performing this work.

TECHNICAL COMMENT

1. The area of proposed excavation near former boring B-14 should be increased to a depth of 3' based upon prior analytical data.

You may contact me at (510) 567-6765 if you have any questions.

Sincerely,

Barney M. Chan
Hazardous Materials Specialist

C: B. Chan, D. Drogos
Mr. Dave Allen, Aqua Science Engineers Inc., 208 W. El Pintado, Danville, CA 94526

Wpap1455 5thSt

CITY OF OAKLAND • Community and Economic Development Agency
250 Frank H. Ogawa Plaza, 2nd Floor, Oakland, CA 94612 • Phone (510) 238-3443 • FAX (510) 238-2263

Job Site 1455 5TH ST BLD A Parcel# 004 -0075-008-02 Appl# RB0304135

Descr Demolish 600 sf bldg.

District: RD-INSP 01
Permit Issued 10/01/03
To schedule inspection
call (510) 238-3444

Related RB0304136
Scope: Building: YES Electrical: NO Mechanical: NO Plumbing: NO

Work Type DEMOLITION	#Units	Plans	Energy Calcs	
Bldg Sq Ft 600	#Stories	Survey	Struct Calcs	
Est Value	Const Type	Soil Report	Occup Codes	
Bldg Use MISC. STRUCTURE		Sprinkler	Zoning	

	Applcnt	Phone#	Lic#	--License Classes--
Owner HALL ANDREW A & JEAN S				
Contractor AQUA SCIENCE ENGINEERS, INC.	X	(925)820-9391	487000 A	C57
Arch/Engr				
Agent				

Applic Addr 208 WEST EL PINTADO, DANVILLE, CA., 94526

$588.85 TOTAL FEES PAID AT FILING $.00 TOTAL FEES PAID AT ISSUANCE

$51.00	Applic	$.00	State Regs
$292.00	Process	$.00	School
$.00	Bedroom	$.00	Plot Plan
$.00	Address	$.00	
$.00	SMIP	$.00	
$.00	Fire	$.00	Zone Conds
$204.87	Inspects	$18.44	Recd Mgmt
$.00	Invstg	$22.54	Gen Plan
$.00	Other	$.00	Fld Chk
$.00	Zone Insp	$.00	Proc Coord

JOB SITE

Plans Checked By _____ Date _____ Permit Issued By _____ Date _____
Special Inspections

Finaled By _____ Date _____

ADDRESS:

DIST:

CITY OF OAKLAND • Community and Economic Development Agency
250 Frank H. Ogawa Plaza, 2nd Floor, Oakland, CA 94612 • Phone (510) 238-3443 • FAX (510) 238-2263

Job Site 1455 5TH ST BLD B Parcel# 004 -0075-008-02 Appl# RB0304136
District: RD-INSP 01
Descr Demolish 600 sf bldg.
Permit Issued 10/01/03
To schedule inspection
call (510) 238-3444

Related RB0304135
Scope: Building: YES Electrical: NO Mechanical: NO Plumbing: NO
Work Type DEMOLITION #Units Plans Energy Calcs
Bldg Sq Ft 600 #Stories Survey Struct Calcs
Est Value Const Type Soil Report Occup Codes
Bldg Use MISC. STRUCTURE Sprinkler Zoning
Applcnt Phone# Lic# --License Classes--
Owner HALL ANDREW A & JEAN S
Contractor AQUA SCIENCE ENGINEERS, INC. X (925)820-9391 487000 A C57
Arch/Engr
Agent
Applic Addr 208 WEST EL PINTADO, DANVILLE, CA., 94526

$588.85 TOTAL FEES PAID AT FILING $.00 TOTAL FEES PAID AT ISSUANCE

$51.00	Applic	$.00	State Regs
$292.00	Process	$.00	School
$.00	Bedroom	$.00	Plot Plan
$.00	Address	$.00	
$.00	SMIP	$.00	
$.00	Fire	$.00	Zone Conds
$204.87	Inspects	$18.44	Recd Mgmt
$.00	Invstg	$22.54	Gen Plan
$.00	Other	$.00	Fld Chk
$.00	Zone Insp	$.00	Proc Coord

JOB SITE

Plans Checked By _____ Date _____ Permit Issued By _____ Date _____
Special Inspections
Finaled By _____ Date _____

ADDRESS: _____
DIST: _____

APPENDIX B

ProTech Consulting & Engineering
Asbestos & Lead Sampling Report

ProTech
Consulting & Engineering

1755 E. Bayshore Road, Suite 14B, Redwood City, CA 94063
(650) 569-4020 Fax (650) 569-4023

Date: September 12, 2003
Report #: **1009-MA03**
DHS Certified Inspector: **Glen Koutz**

LEAD SURVEY AND EVALUATION

CONDUCTED AT:

1455 5th Street
Oakland, California

PREPARED FOR:

Mr. Dave Allen
Aqua Science
208 West El Pintado
Danville, CA 94526

PREPARED BY:

PROTECH CONSULTING AND ENGINEERING

INTRODUCTION

On September 10, 2003, **ProTech Consulting and Engineering** performed a cursory survey to detect the presence of lead paint at two building located at 1455 5th Street, Oakland, California. Lead survey work was performed for the purpose of identifying the presence of lead-based (LBP) paint on major building components on each structure. ProTech's lead survey services were conducted at the request of Mr. Dave Allen with Aqua Science of Danville, California.

The following report presents the results of ProTech's lead building survey. Lead-related consulting services were conducted by Mr. James Ratti. The objective of ProTech's lead survey was limited to providing the following scope services:

- Conduct an survey of the subject sites to identify suspect LBP on major building components.
- Take random reading of painted surfaces by X-ray fluorescence (XRF) detector to determine the presence of lead-based paint on major building components.
- Make general recommendations as appropriate.

This screening survey was conducted for the purpose of generally characterizing the presence of lead-based paint on major building components. ProTech does not represent this screening survey as a comprehensive survey or evaluation. This survey and the sampling methodology used during this scope of work did not comply with comprehensive HUD lead survey methods of protocol.

RESULTS

Lead was detected in various amounts on a variety of building components. Sample results fell into one of three categories a follows:

1	Lead-based paint (LBP)	1 milligrams of lead per square centimeter (mg/cm^2) or greater
2	Lead-containing paint (LCP)	<1 mg/cm^2 of lead
3	No detected lead (ND	0 or <0 mg/cm^2 of lead

There were a total of nineteen (19) XRF reading taken including six (6) calibration readings. The results of these reading are summarized as follows:

Front Structure

LBP:	1 reading tested positive for lead-based paint (LBP).
LCP:	4 readings tested positive for lead-containing paint.
ND:	No lead was detected in 5 readings.

Rear Structure

LBP:	1 readings tested positive for lead-based paint (LBP).
LCP:	0 readings tested positive for lead-containing paint.
ND:	No lead was detected in 1 reading.

An inventory of all sample results can be found in the attached "Lead Survey Report". Paint sampling was not comprehensive or representative of all painted surfaces.

CONCLUSION AND RECOMMENDATION

- At the clients request, Supplemental paint chip sampling may be performed to confirm XRF sample location where no lead was detected (0.0 mg/cm^2). Cal OSHA does not accept a zero XRF reading as conclusive data to prove that no lead is present.

- Any work performed at the site where LBP or LCP is likely to be disturbed should be performed by a contractor trained and qualified to perform lead-related construction work. Any work perfumed to remediate a lead hazard should be performed by DHS certified personnel employing lead work practices in accordance with HUD guidelines.

- Contractor's, whose employees work at this site are required to assess if their work will be subject to the requirements of the Cal OSHA lead construction standard (CCR Title 8 § 1532). Cal OSHA standards are designed to regulate and enforce on-the-job worker safety. Employers are required by law to ensure that employees are <u>not</u> exposed to airborne lead levels which exceed the permissible exposure limit (PEL). The standard requires worker exposure monitoring, medical surveillance, training, special work practices, etc.

  Cal OSHA requires compliance with their lead construction regulation when:

  1. The permissible exposure limit (PEL) will or may be exceeded. The PEL is an exposure to airborne lead dust of 50 micrograms of lead per cubic meter of air (50 $\mu g/m^3$) over an 8 hour time weighted average (TWA).

  2. Employees perform "trigger activities" that impact a material containing lead in any detectable amount. Cal OSHA mandates that an employer assume the PEL will be exceeded when his/her employees conduct "trigger activities" involving lead. Trigger activities are defined as follows:

Trigger Activity	Anticipated Exposure	Required Respirator
• Manual demolition • Manual scraping and sanding • Heat gun use • Use of power tools with dust collection systems • Spray painting with lead paint • Any other activity that the employer has any reason to believe that an employee may be exposed in excess of the PEL.	50-100 $\mu m/m^3$	Half-mask, air purifying

• Using lead containing mortar • Lead burning • Rivet busting • Power tool cleaning without dust collection system • Clean-up of dry abrasive blast residue.	500-2500 $\mu m/m^3$	Full-face, air purifying, or Tight fitting PAPR, or Supplied air, contiguous flow
• Abrasive blasting • Welding • Cutting • Torch burning.	>2500 $\mu m/m^3$	Supplied air, pressure demand

- Contractors whose employees will be working on this project are required to assess lead exposure risk to their employees (as per Cal OSHA lead standard CCR Title 8 § 1532.1). In making this evaluation, contractors should:

  1. Review all lead related documents and reports.
  2. Become familiar and comply with Cal OSHA and other applicable lead regulations.
  3. Make an assessment to determine potential worker exposure relative to the various lead-related construction work to be performed.
  4. Collect supplemental data/samples if necessary.
  5. Assess and monitor worker lead exposure levels during the performance of lead trigger tasks or other activities that may potentially expose workers to levels above the Cal OSHA permissible exposure level.
  6. Determine compliance requirement relative to DOSH notification rules.

- Painted surfaces that contain levels of lead below 1 mg/cm^2, may create lead lead-contamination if paint is turned into dust by abrasion, scraping, or sanding. This report should be kept by the owner and all future owners for the life of the building.

- Samples reported at greater than 0.0 mg/cm^2 are considered to contain detectable amounts of lead. These results are reported with a 95% confidence limit as calculated by the XRF unit as required by HUD guidelines.

- ProTech recommends that the building owner disseminate this report as well as any other lead-related information to all prospective contractors bidding work at the subject site. Contractor should be encouraged to evaluate and possibly supplement this data to assess potential worker exposure impact and possible regulatory requirements associated with their particular construction scope of work.

LEAD STANDARDS

The following is a discussion of the lead paint, dust, and soil standards established by the California Department of Health Services (DHS), California Occupational Safety and Health Administration (Cal OSHA), Environmental Protection Agency (EPA), and U.S. Department of Housing and Urban Development (HUD). These standards were used to compare with the sample results obtained during the risk assessment of the subject property.

Lead-Based Paint and Lead-Containing Materials:
The DHS, EPA, and HUD define "lead-based paint" (LBP) as any surface coating which contains a lead content of 5,000 parts per million (ppm) (or 0.5% by weight) or greater. Accordingly, surface coatings containing a lead content below these levels are not considered LBP and are not considered a hazard as defined by DHS, EPA, and HUD. LBP can present a lead hazard if the paint is damaged or deteriorated.

Cal OSHA defines lead-based paint at the Consumer Product Safety Commission's (CPAC) level of 600 ppm for non-trigger tasks (trigger tasks are discussed in the Lead-based Paint Regulation section of this report). However, when trigger tasks are conducted, the Cal OSHA regulation must be followed when there is **any detectable lead** in the product being disturbed.

Government Agency	Lead-based Paint Definition	Lead-containing Material Definition
OSHA and Cal OSHA	600 ppm or greater	Any detectable amount
DHS	1 mg/cm² or 5,000 ppm (or greater)	N/A
EPA	1 mg/cm² or 5,000 ppm (or greater)	N/A
HUD	1 mg/cm² or 5,000 ppm (or greater)	N/A

Lead In Dust:
The DHS, EPA, and HUD have each established lead in dust standards to define the presence of a lead hazard. According to these agencies, a lead hazard is determined to be present when lead wipe sample results are at or above the following hazard levels.

Sample Location	Hazard Level
Hard Floors	40 μm/sq ft (50 DHS)
Interior Window Sills	250 μm/sq ft
Exterior floors & horizontal window surfaces	400 μm/sq ft

Lead In Soil:
The DHS, EPA, and HUD have each established lead in bare soil standards to define the presence of a lead hazard. According to these agencies, a lead hazard is determined to be present when bare soil sample results are at or above the following hazard levels.

Sample Location	DHS Hazard Level
Bare Soil (dwelling perimeter and yard)	1,000 PPM
Bare Soil (children's play areas)	400 PPM

LEAD-BASED PAINT REGULATIONS

California Department of Health Services (DHS) - Title 17, CCR, Division 1, Chapter 8, Sections 35000-361000:
The DHS has implemented a comprehensive regulation that provides an accreditation process for lead training providers and professionals. This regulation requires anyone conducting lead paint surveys, risk assessments, lead paint abatement and lead hazard reduction work in any public or residential building to be DHS trained and certified.

A written abatement plan describing exposure prevention procedures, abatement methods, items to be abated, re-survey recommendations, and instructions on how to maintain

potential lead hazards in a safe condition is required for all abatement work. DHS also requires notification of upcoming abatement work on Form 8551. This form must be posted at all job site entrances five days before abatement begins.

The standard requires inclusion of certain elements in each hazard evaluation report including a copy of DHS Form 8552. In addition, the standard requires the use of HUD guidelines when performing lead risk assessments, surveys, monitoring, abatement and interim control work.

Environmental Protection Agency (EPA) - Title X:
Under the Housing and Community Development Act of 1992 (Title X) Congress required the EPA to take on many responsibilities. A few of the key issues are discussed below.

On August 28, 1996, the EPA issued a model lead training and accreditation regulation. States were given two years to develop their own programs or adopt the EPA program. In California, the Department of Health Services (DHS) has developed a state training and accreditation program which is currently in effect.

In March 1996, the EPA issued the Real Estate Notification and Disclosure Rule. This rule requires owners of all private housing built before 1978 to take four actions, as follows:

1. Disclose any known hazards to potential buyers or renters.
2. Give potential buyers or renters the EPA/HUD lead disclosure pamphlet titled "Protect Your Family from Lead In Your Home."
3. Allow potential buyers ten days to conduct an optional survey or risk assessment.
4. Add language to real-estate contracts that confirms compliance with the activities described above.

The EPA's objective is to control renovation and remodeling work done in homes that might create lead dust hazards. In May 1998, they issued a regulation that will take effect in June 1999 requiring contractors working in pre-1978 homes to notify the owner if they will disturb more that two square feet of lead-paint.

Department of Housing and Urban Development (HUD):
HUD was the first agency to develop lead standards. By the end of the 1980's, HUD was developing numerous regulations and guidance documents to be used on HUD funded properties. In 1989, HUD published the most comprehensive lead guidance document for survey and management of lead paint hazards to date. A new guidance document ("Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing") for risk assessments, surveys, interim controls, and abatement of lead-based paint hazards replaced the old standard in August 1995. Chapter 7 of the 1995 guideline was revised in October 1997.

The new HUD Standard remains the most comprehensive lead risk assessment, survey, management, and abatement guidance document. Many other federal, state, and local regulations mandate compliance with HUD Guidelines.

California Occupational Safety and Health Administration - CCR Title 8 § 1532:
Cal OSHA regulations are designed to regulate and enforce on-the-job worker safety. Employers are required by law to ensure that employees are <u>not</u> exposed to airborne lead levels which exceed the permissible exposure limit (PEL) of 50 micrograms of lead per cubic meter of air (50 $\mu g/m^3$) over an 8 hour time weighted average (TWA). Both California and Federal OSHA standards requires worker training, air monitoring to

determine work exposure to lead, initial blood testing, personal protective equipment, and specific work practices and engineering controls whenever employees disturb lead in **any concentration** (including less than 600 ppm) where the disturbance will result in exposures to airborne lead in concentrations over the OSHA Action Limit or PEL. OSHA mandates that an employer **assume** the PEL will be exceeded when conducting "trigger activities".

The Cal OSHA standard also requires DHS lead training and certification for any supervisors or workers who are shown to be exposed to airborne lead levels above the PEL.

Thank you for this opportunity to be of service, please contact me if you require additional information.

Respectfully Submitted,

Glen Koutz
DHS Certified Lead Inspector I2204

LEAD PAINT INSPECTION REPORT

REPORT NUMBER: S#01369 - 09/10/03 14:52

INSPECTION FOR: Aqua Science
208 West El Pintado
Danville, Ca. 94526

PERFORMED AT: 1455 5th Street
Oakland, Ca.

Protech Job#1009-LA03

INSPECTION DATE: 09/10/03

INSTRUMENT TYPE: R M D
MODEL LPA-1
XRF TYPE ANALYZER
Serial Number: 01369

ACTION LEVEL: 1.0 mg/cm**2

OPERATOR LICENSE: California General

STATEMENT: Lead paint survey as agreed.
No representations are made for any areas not tested.

SIGNED _____ DATE _____

Protech Consulting & Engineering
1755 E. Bayshore Rd. Suite 14B
Redwood City, Ca. 94063
Phone: 650-569-4020
Fax: 650-569-4023

SUMMARY REPORT OF LEAD PAINT INSPECTION FOR: Aqua Science

Inspection Date:	09/10/03	1455 5th Street
Report Date:	9/11/03	Oakland, Ca.
Abatement Level:	1.0	
Report No.	S#01369 - 09/10/03 14:52	Protech Job#1009-LA03
Total Readings:	19 Actionable: 2	
Job Started:	09/10/03 14:52	
Job Finished:	09/10/03 15:12	

Read No.	Wall	Structure	Location	Member	Paint Cond	Substrate	Paint Color	Lead (mg/cm≤)	Mode
Exterior Room 001 Number Only									
011	A	Door	Lft	U Ctr	I	Wood	Gray	1.0	QM
016	D	Door	Rgt	L Ctr	I	Wood	Black	1.8	QM

Calibration Readings

---- End of Readings ----

DETAILED REPORT OF LEAD PAINT INSPECTION FOR: Aqua Science

Inspection Date:	09/10/03	1455 5th Street
Report Date:	9/11/03	Oakland, Ca.
Abatement Level:	1.0	
Report No.	S#01369 - 09/10/03 14:52	Protech Job#1009-LA03
Total Readings:	19	
Job Started:	09/10/03 14:52	
Job Finished:	09/10/03 15:12	

Read No.	Wall	Structure	Location	Member	Paint Cond	Substrate	Paint Color	Lead (mg/cm≤)	Mode
Front Building									
Exterior Room 001 Number Only									
014	A	Wall	U Lft		I	Drywall	White	0.3	QM
013	A	Window	Ctr	Sash	I	Metal	Green	0.2	QM
012	A	Door	Lft	Lft jamb	I	Wood	White	0.0	QM
011	A	Door	Lft	U Ctr	I	Wood	Gray	1.0	QM
Rear Building									
015	D	Wall	U Ctr		I	Concrete	White	-0.2	QM
016	D	Door	Rgt	L Ctr	I	Wood	Black	1.8	QM
Front Building									
Interior Room 001 Number Only									
004	A	Wall	U Ctr		I	Drywall	White	-0.1	QM
009	A	Window	Ctr	Sash	I	Metal	White	0.0	QM
010	A	Window	Ctr	Sill	I	Wood	White	-0.4	QM
008	A	Door	Rgt	Lft casing	I	Wood	White	0.1	QM
007	A	Door	Rgt	U Ctr	I	Wood	White	-0.2	QM
006	B	Wall	U Ctr		I	Concrete	White	0.5	QM
005	C	Wall	U Ctr		I	Wood	White	-0.1	QM
Calibration Readings									
001								1.0	TC
002								1.1	TC
003								0.9	TC
017								1.0	TC
018								1.1	TC
019								1.0	TC

---- End of Readings ----

ProTech
Consulting & Engineering

1755 E. Bayshore Road, Suite 14B, Redwood City, CA 94063
(650) 569-4020 Fax (650) 569-4023

Date: September 11, 2003
Report #: **1009-LA03**
DOSH Certified Site Surveillance Technician: **Emanuel Dounias**
Certificate No.: **90-2766**

ASBESTOS SURVEY AND EVALUATION

CONDUCTED AT:

1455 5th Street
Oakland, California

PREPARED FOR:

Mr. Dave Allen
Aqua Science
208 West El Pintado
Danville, CA 94526

PREPARED BY:

PROTECH CONSULTING AND ENGINEERING

September 2003

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ASBESTOS BUILDING SURVEY REPORT

REPORT BODY

APPENDICES

INTRODUCTION

On September 10, 2003, ProTech Consulting and Engineering performed a selective scope inspection for asbestos-containing materials (ACM) and asbestos-containing construction materials (ACCM) of a commercial building located at 1455 5th Street, Oakland, California. ProTech's asbestos inspection services were conducted at the request of Mr. Dave Allen with Aqua Science, of Danville, California.

The following report presents the results of ProTech's asbestos building survey. Asbestos-related consulting services were conducted by Mr. Emanuel Dounias. Mr. Dounias is a Cal-OSHA Certified Site Surveillance Technician, certificate number 90-2766. The objective of ProTech's asbestos inspection was limited to providing the following scope of services:

- Conduct a non-demolition inspection of the subject site to identify, inventory, and catalog visibly accessible suspect friable and non-friable asbestos-containing materials (ACM);
- Collect samples of suspect ACM for laboratory analysis;
- Submit suspect ACM samples for laboratory analysis by polarized light microscopy (PLM) to determine asbestos content;
- Evaluate and assess the friability and condition of identified ACM;
- Identify the approximate location of each ACM;
- Make general recommendations as appropriate.

The information contained in this report is limited to those areas and suspect asbestos materials found to be visually accessible through reasonable means. No demolition of building materials was conducted to determine the presence of asbestos in wall cavities, chases or other inaccessible areas. ProTech cannot warrant that this building does not contain ACM in locations other than those noted in this report, however, a good faith effort was made to conduct a comprehensive survey within the limitations of the stated scope of services. This report presents a complete record of all significant findings, evaluations and sample results.

Thank you for using ProTech Consulting and Engineering. Please feel free to call with any questions or concerns regarding this report at (650) 569-4020.

Glen Koutz
Cal-OSHA Certified Asbestos Consultant
Certificate #92-0019

RESULTS

The following is an inventory of the suspect asbestos-containing materials identified during ProTech's inspection of the subject site. The table provides the following information:

1. *Item number*: A reference number assigned to each identified homogeneous suspect asbestos material type.
2. *Suspect Asbestos Material Description*: A description of each identified suspect asbestos material type.
3. *PLM Sample #'s*: Identifies the sample number(s) associated with a specific suspect asbestos material.
4. *Asbestos Content*: Report of corresponding laboratory results. Materials found to contain asbestos during laboratory analysis are highlighted in **bold** *italicized* type face.

Item #	Suspect Asbestos Material Description	PLM Sample #'s	Asbestos Content (%)
1	***Wall/ceiling sheetrock, joint tape & compound – throughout mixed with wood***	***01, 02*, 03****	***None detected to <1% Chrysotile***
2	Wall/ceiling sheetrock surfacing texture - throughout	04, 05, 06	None detected
3	Gray sheet flooring – Bathroom	07	None detected
4	Exterior window glazing -	08, 09	None detected
5	***Transite siding – rear part***	***10***	***19% Chrysotile***
6	Brown /black asphalt flooring – rear half	11	None detected
7	Gray /black tar and felt roofing	12	None detected

* No asbestos detected in sample

ACM EVALUATION & ASSESSMENT

ACM Item #1 - Sheetrock, Joint Tape & Compound

ACM Location(s) & Approximate Quantity

Item 1: Wall/ceiling sheetrock, joint tape & compound – throughout mixed with wood	1500 sq ft.

Friability Assessment EPA / AQMD Assessment

Non-friable: This ACCM cannot be easily reduced to dust.
Not RACM: This material is not a "Regulated Asbestos Containing Material" because it contains less than 1% asbestos.

Assessment of Present Conditions

No specific action is recommended at this time. This ACM should not pose a significant asbestos contamination concern in its' present condition. This non-friable asbestos material will not easily release asbestos fibers into the air. Note, however, that this material may become friable if it will be subjected to sanding, drilling, grinding, cutting, or abrading.

Special Notes

This asbestos-containing construction material (ACCM) was found to contain an asbestos content of less than 1%. Materials containing less than 1% asbestos are not regulated by most governmental agencies including the US. Environmental Protection Agency (EPA), Federal OSHA, California EPA, and most air quality management districts. However, under most circumstances, the removal and handling of materials containing $^{1}/_{10}$ of 1% (or greater) asbestos are subject to the contractor registration and work practice requirements of the Division of Occupational Safety and Health (Cal OSHA).

Samples #02, 03 tested negative for asbestos content (non-asbestos) while samples #01 collected tested positive (<1% Chrysotile asbestos). In evaluating sample results for a set or group of homogeneous samples (samples of the same material), general industry standards hold that negative sample results are superseded by a single positive sample result. Once a single positive sample is identified, the entire representative/homogeneous area/material is considered, and treated as an asbestos-containing material. However, if additional sampling, as-built plans, or other reliable data can adequately explain or confirm that areas testing positive are different (not homogeneous) from areas that tested negative, this information can be used to more accurately quantify ACM and define the scope of an asbestos abatement job.

Joint compound that is an integral part of the wall system is allowed to be composite sampled by both EPA and BAAQMD.

Additional testing can be done to determine if the levels are less than $^{1}/_{10}$ of 1%.

ACM Item # 5 – Transite Siding

ACM Location(s) & Approximate Quantity	Item 5: Transite siding – rear part	1000 sq ft.
Friability Assessment EPA / AQMD Assessment	Non-friable, Category II: This ACM cannot be easily reduced to dust. Not Currently RACM: In its present condition, this material is not a "Regulated Asbestos Containing Material".	

Assessment of Present Conditions

No specific action is recommended at this time. This ACM should not pose a significant asbestos contamination concern in its' present condition. This Category II Non-friable Asbestos Material will not easily release asbestos fibers into the air. Note, however, that this material may become a regulated asbestos-containing material (RACM) if it will be crumbled, pulverized, or reduced to powder during renovation or demolition.

CONCLUSIONS AND RECOMMENDATIONS

- **Renovation and Demolition:**
  In accordance with local, state, and federal asbestos regulations, ProTech recommends that any asbestos-containing material that may be impacted during repairs, renovation, or demolition be removed prior to those destructive activities.

  In preparation for this task, ProTech recommends that the following steps be taken:

  1. Upon request, ProTech's accredited project designers will develop an asbestos abatement scope of work. The abatement design/specification will set forth the guidelines for proper and cost effective removal of ACM as needed. ProTech's project specification will outline the performance parameters for hazard remediation

work standards, contamination control, health and safety, contractor qualifications, regulatory compliance, clearance and release criteria, and other requirements specific to this project.

2. ProTech will assist the client or manage the selection of qualified asbestos abatement contractors. Prospective bidders must be licensed by the State of California and register with the Department of Occupational Safety and Health (DOSH).

3. The owner may need to obtain an EPA generator identification number if greater than 50 pounds of friable/hazardous ACM will be removed and disposed of. An EPA generator ID can be obtained by calling EPA at **(916) 324-1781**.

4. During the removal of asbestos-containing materials, ProTech's certified field technicians can represent the owner, providing quality control oversight of the asbestos abatement operation. On-site consultants monitor the contractor's compliance with accepted industry standard practices and regulatory standards, and ensure that the project is completed on time and within budget.

5. The most critical point in an asbestos abatement project is determining when the work has been completed, the contractor can be released, and the building/area can be occupied. ProTech conducts final visual inspections and clearance air monitoring to certify that industry clearance standards are met prior to general re-entry of the asbestos abatement work area. Upon request, ProTech will conduct 3rd party clearance monitoring.

DISCUSSION

Asbestos and its uses:
Asbestos is a term that refers to a group of naturally occurring fibrous minerals. Because of their resistance to decay and their remarkable insulating properties, asbestos fibers have been incorporated into thousands of products and materials. Collectively these products are frequently referred to as asbestos-containing materials (ACM). Many types of ACM have been used in the construction of buildings and homes. ACM types are generally put into one of three classifications, they are:

1. Surfacing materials

Surfacing materials are those products which have been sprayed or trowelled onto ceilings, walls and other structural elements. (e.g. fireproofing, thermal insulation or decoration) Because of the type of mixture used in the construction industry, these materials are commonly *friable*, that is they are easily crushed or reduced to powder form with hand pressure.

2. Thermal systems insulation (TSI)

The insulation applied to mechanical systems, hot water pipes and heating ducts often contains asbestos. Hot water pipes and heating systems are covered with asbestos insulation primarily to prevent heat loss and to protect other nearby surfaces from the hot pipes. Much of this asbestos insulation was manufactured from 1920 to 1972, and it was used in construction until 1978.

3. Miscellaneous

Miscellaneous ACM materials include all asbestos products which cannot be classified as either surfacing material or TSI. These materials are usually non-friable and generally do not release asbestos fibers into the air unless damaged. Products such as floor tile, mastic, roofing material and concrete asbestos products are examples of miscellaneous ACM.

Current Asbestos Regulations:

The following is a summary of select major state and federal asbestos regulations. These summaries are not intended to be a comprehensive discussion of the specific regulations. In addition, this summary is not an all inclusive overview of the asbestos regulatory universe.

Division of Occupational Safety And Health (Cal-OSHA) – Title 8 CCR § 1529

On July 2, 1996 Cal-OSHA implemented revised general industry and construction asbestos standards which apply to all occupational exposure to asbestos. The new Cal-OSHA construction standard requires owners of buildings built prior to 1981 to presume that a variety of building materials contain asbestos unless they are sampled and proved to not contain asbestos. Employers whose employees work in these same buildings face the same responsibility to either test materials or treat them as ACM.

The standard describes four classes of asbestos-related work: I) removal of asbestos thermal systems insulation and surfacing materials, II) removal of asbestos material which are not thermal systems insulation or surfacing materials, III) repair and maintenance operations where small amounts of asbestos or presumed asbestos (PACM) is likely to be disturbed, and IV) maintenance and custodial activities during which employees contact but do not disturb ACM or PACM and activities to clean up dust, waste, and debris resulting from Class I, II, and III activities. For each class, OSHA specifies the type of training, work practices, air sampling, and personal protection required of the employer and worker. This new regulation is a jobs based standard. Specific notifications and work practices are required if asbestos will be disturbed.

EPA's NESHAP Regulation – 40 CFR Part 61, Subpart M

NESHAP requires building owners to inspect a building for asbestos prior to renovation or demolition. The EPA must be notified in advance of all demolition (whether there is asbestos present or not) and if more than 160 square feet, 260 linear feet, or 35 cubic feet of Regulated Asbestos Containing Materials (RACM) are going to be disturbed during renovation. RACM must be removed before any demolition or renovation work disturbs it. Specific work practices must be followed during the removal of RACM. RACM must be adequately wet when disturbed and must remain wet until placed in leakproof containers. No visible emissions are allowed during collection, packaging, transportation, or disposal of RACM. Records must be kept regarding the transportation and disposal of RACM.

In many areas, including the San Francisco Bay Area, the federal NESHAP regulation is enforced by the local air quality management district (AQMD). In many cases, EPA has "delegated" NESHAP enforcement to these local agencies. Each AQMD has developed an enforcement regulation based on the NESHAP regulation, and in many instances these local regulations are more stringent then the Federal EPA NESHAP regulation.

EXCLUSIONS AND REPORT LIMITATIONS

- This asbestos inspection report has been prepared by ProTech for the exclusive use of ProTech and its client, and not for use by any other party. The investigation and sampling plan discussed in this report may not be appropriate for uses beyond its intended purpose and stated scope. Any use by a third party of any of the information contained in this report shall be at their own risk and shall constitute a release and an agreement to defend and indemnify ProTech from any and all liability in connection therewith whether arising out of ProTech's negligence or otherwise.

- Consulting services performed by ProTech were limited to this asbestos survey. No other services were requested by the client. Lead inspection & assessments, PCB investigations, hazardous material audits, indoor air quality investigations, Phase I & II site assessments, and other general environmental consulting are additional services routinely performed by ProTech. These services were not performed at this site. A

general environmental audit may be performed to assess the need for additional environmental consulting services.

- ProTech's evaluations do not attempt to forecast or anticipate planned or unforeseen events which may negatively impact ACM condition. All conclusions and recommendations presented herein are based on visible conditions present at the time of inspection. Changes in material condition due to deterioration, unforeseen accidents, or planned events such as renovation or demolition may render the recommendations and conclusions presented in this report obsolete.

- ProTech does not represent this screening/selective survey as a comprehensive inspection or evaluation. ProTech recommends that an expanded, comprehensive asbestos survey be conducted at this site if renovation or demolition activities are expected to impact any building materials other then those specifically addressed in this report.

- ProTech cannot warrant that this building does not contain ACM in locations other then those noted in this report. If suspect asbestos materials are discovered during future repairs, demolition or renovation operations, all general work activities which could impact the discovered suspect ACM should cease until confirmation sampling and/or asbestos abatement options can be assessed.

- This evaluation is limited to the material actually observed and may not apply the same material in other locations. Because of the cursory nature of ProTech's survey (as requested by the client), assessment of material condition is limited to the areas actually observed and sampled.

- ProTech collected one sample (*single sampling*) of each friable and non-friable suspect asbestos material identified during the inspection. Single sampling was conducted as a means of profiling and generally characterizing the presence and extent of ACCM throughout the subject site. Because this survey was conducted for purposes of characterizing the presence of ACM, it was *not* ProTech's intent to collect multiple samples of homogeneous materials to comply with EPA recommended or suggested sample quantities.

- ProTech does not represent this report as an assessment of asbestos impact on air quality. No air samples were collected by ProTech to evaluate potential airborne asbestos dust levels. All conclusions and recommendations contained herein are based solely on a visual evaluation of ACM.

- All reasonable efforts were made to examine below carpeted areas and resilient floor coverings to determine and quantify the presence of suspect asbestos materials. ProTech accepts no liability for additional materials or under-reporting of asbestos materials which exist below other floor coverings.

- All quantification of ACM is approximate and should not be relied upon for bidding purposes. This report is not represented as, nor intended to be, an asbestos-abatement scope of work or project specification.

- Because this survey was conducted in an occupied building, intrusive inspection methods were limited. Specific care and caution was observed to avoid significant aesthetic impact on building materials and finishes during inspection services and sample collection. In some cases, additional sampling may be necessary if future demolition or renovation activities uncover additional suspect asbestos materials.

- Fiberglas insulated mechanical systems were inspected as completely as possibly without destroying the integrity of the Fiberglas insulation. The condition and presence or absence of asbestos associated with mechanical systems is assumed to be consistent with those areas exposed and examined during our inspection. However, ProTech does not guarantee that this is the case.

SURVEY METHODOLOGY

Inspection and Sample Collection:
A survey of the subject site was conducted to identify and catalog visibly accessible suspect asbestos materials and to develop a sampling strategy for characterizing ACM. Following the initial inspection, samples were collected of suspect asbestos materials from each homogenous sample area. Samples were collected by misting small sample areas with water, then cutting or scraping the sample from the substrate with an appropriate sampling tool. Whenever possible, samples were collected from areas previously damaged or deteriorating. No building systems, components, or structures were demolished to obtain samples of potentially hidden ACM.

Each suspect bulk sample was sealed in its own Zip-lock plastic container and labeled with a unique identification number. Sampling tools were individually cleaned before and after each sample was collected to avoid sample cross contamination. Decontamination was accomplished using single-use, pre-moistened cloths.

ProTech's inspector collected a total of **twelve (12)** suspect asbestos samples, all of which were analyzed by PLM for asbestos content. Samples were recorded on **ProTech's** in-house chain-of-custody form. This form accompanied the samples to EMSL of Milpitas, California which is accredited by the National Voluntary Laboratory Accreditation Program (NVLAP) for analysis of bulk building material samples for asbestos.

Sample Analysis:
To determine asbestos content, the samples were submitted to the certified laboratory for analysis. Suspect asbestos samples were subjected to analysis by polarized light microscopy (PLM).

Bulk sample analysis was conducted in accordance with the EPA interim method for determination of asbestos in bulk materials. Samples were first examined by a stereoscopic microscope for determination of homogeneity and preliminary evaluation of composition and presence of fibers. Fibers observed during this examination were then mounted in various refractive index oils and examined in polarized light. During this examination, all minerals and/or man-made materials were identified and the percentages of each were estimated and/or counted.

Evaluation of Asbestos-Containing Materials:
In evaluating each asbestos material, the adhesion of the asbestos material to the underlying substrate, deterioration, and damage from vandalism or any other cause was assessed. Evidence of debris on horizontal surfaces, hanging material, dislodged chunks, scraping, indentations, or cracking were indicators of poor material condition.

Accidental or deliberate physical contact with asbestos materials can result in damage. Inspectors looked for any evidence that asbestos-containing materials had been disturbed. Indicators such as: finger marks in the material, graffiti, pieces dislodged or missing, scraping marks from movable equipment, or furniture, or an accumulation of suspect asbestos dust or debris on floors, shelves, or other horizontal surfaces indicate poor material condition.

Asbestos-containing materials may deteriorate as a result of either the quality of the installation or environmental factors which affect the cohesive strength of the asbestos-containing material or the strength of the adhesion to the substrate. Deterioration can result in an accumulation of dust on the surface of the asbestos-containing material, delamination of the material, or an adhesive failure of the material where it pulls away from the substrate and either hangs loosely or falls to the floor and exposes the substrate. Inspectors touch the asbestos-containing material to determine if dust is released when the material is lightly brushed or rubbed.

Final Report

Bulk Asbestos Analysis

(EPA Method 600/R-93-116, Visual Area Estimation)

Protech Consulting & Engineers Inc
Project Manager

1755 E. Bayshore-Ste 14B
Redwood City, CA 94063

Client ID: 1454
Report Number: B054158
Date Received: 09/11/03
Date Analyzed: 09/12/03
Date Printed: 09/12/03
First Reported: 09/12/03

Job ID / Site: 1009-LA03/PO#910-1009-12 - 1455 5th St., Oakland

FASI Job ID: 1454-1546

Sample Number	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
01	10263135						
Layer: White Drywall			ND				
Layer: Off-White Skimcoat/Joint Compound		Chrysotile	2 %				
Layer: Off-White Skimcoat/Joint Compound		Chrysotile	2 %				
Layer: Paint			ND				
Total Composite Values of Fibrous Components: **Asbestos:(Trace)**							
Cellulose (20%) Fibrous Glass (10%)							
Comment: Collected on 09/10/2003							
02	10263136						
Layer: White Drywall			ND				
Layer: Paint			ND				
Total Composite Values of Fibrous Components: **Asbestos:(ND)**							
Cellulose (20%)							
Comment: Collected on 09/10/2003							
03	10263137						
Layer: White Drywall			ND				
Layer: Off-White Skimcoat/Joint Compound			ND				
Layer: Off-White Skimcoat/Joint Compound			ND				
Layer: Paint			ND				
Total Composite Values of Fibrous Components: **Asbestos:(ND)**							
Cellulose (20%) Fibrous Glass (Trace%)							
Comment: Collected on 09/10/2003							
04	10263138						
Layer: Off-White Drywall			ND				
Layer: Off-White Skimcoat/Joint Compound			ND				
Layer: Paint			ND				
Total Composite Values of Fibrous Components: **Asbestos:(ND)**							
Cellulose (35%) Fibrous Glass (Trace%)							
Comment: Collected on 09/10/2003							

Final Report

Bulk Asbestos Analysis

(EPA Method 600/R-93-116, Visual Area Estimation)

Protech Consulting & Engineers Inc
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FASI Job ID: 1454-1546

Sample Number	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
05	10263139						
Layer: Off-White Skimcoat/Joint Compound			ND				
Layer: Paint			ND				
Layer: Beige Skimcoat/Joint Compound			ND				

Total Composite Values of Fibrous Components: **Asbestos:(ND)**
Cellulose (Trace%)
Comment: Collected on 09/10/2003

Sample Number	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
06	10263140						
Layer: Off-White Skimcoat/Joint Compound			ND				
Layer: Paint			ND				

Total Composite Values of Fibrous Components: **Asbestos:(ND)**
Cellulose (Trace%)
Comment: Collected on 09/10/2003

Sample Number	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
07	10263141						
Layer: Grey Sheet Flooring			ND				
Layer: Fibrous Backing			ND				
Layer: Beige Mastic			ND				

Total Composite Values of Fibrous Components: **Asbestos:(ND)**
Cellulose (20%) Fibrous Glass (5%) Synthetic (10%)
Comment: Collected on 09/10/2003

Sample Number	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
08	10263142						
Layer: Grey Putty			ND				
Layer: Paint			ND				

Total Composite Values of Fibrous Components: **Asbestos:(ND)**
Cellulose (Trace%)
Comment: Collected on 09/10/2003

Bulk Asbestos Analysis

(EPA Method 600/R-93-116, Visual Area Estimation)

Protech Consulting & Engineers Inc
Project Manager

1755 E. Bayshore-Ste 14B
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FASI Job ID: 1454-1546

Sample Number	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
09	10263143						
Layer: Grey Putty			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: **Asbestos:(ND)**							
Cellulose (Trace%)							
Comment: Collected on 09/10/2003							
10	10263144						
Layer: Grey Semi-Fibrous Material		Chrysotile	**20 %**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: **Asbestos:(19%)**							
Cellulose (Trace%)							
Comment: Collected on 09/10/2003							
11	10263145						
Layer: Stones			**ND**				
Layer: Black Tar			**ND**				
Layer: Black Felt			**ND**				
Total Composite Values of Fibrous Components: **Asbestos:(ND)**							
Cellulose (65%)							
Comment: Collected on 09/10/2003							
12	10263146						
Layer: Black Tar			**ND**				
Layer: Black Felt			**ND**				
Total Composite Values of Fibrous Components: **Asbestos:(ND)**							
Cellulose (Trace%) Fibrous Glass (45%)							
Comment: Collected on 09/10/2003							

Final Report

Bulk Asbestos Analysis

(EPA Method 600/R-93-116, Visual Area Estimation)

Protech Consulting & Engineers Inc
Project Manager

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Client ID: 1454
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First Reported: 09/12/03

Job ID / Site: 1009-LA03/PO#910-1009-12 - 1455 5th St., Oakland

FASI Job ID: 1454-1546

Sample Number	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer

James Flores, Laboratory Supervisor, Hayward Laboratory

Note: Limit of Quantification ('LOQ') = 1%. 'Trace' denotes the presence of asbestos below the LOQ. 'ND' = 'None Detected'.

ProTech
Consulting & Engineering

1755 E. Bayshore Rd., #14B
Redwood City, CA 94063
Phone: (650)569-4020 Fax: (650) 569-4023

Environmental Services

Page 1 of 2
Job # [illegible]
P.O. # [illegible]

General Information

Date: 5 10 05
Job ID: [illegible]
Collected By: [illegible]
Lab: ______

Analysis Requested

- ☐ PCM NIOSH 7400
- ☐ TEM
  - ○ Level 2
  - ○ AHERA
- ☐ PLM BULK
- ☐ AA Lead, Air
- ☐ AA Lead, Bulk
- ☐ AA Lead ______

Turn Around Time

- ☐ Rush
- ☐ 8 hours
- ☑ 24 hours
- ☐ 48 hours
- ☐ 3-5 days
- ☐ ______

Special Instructions

☐ Prior Positive

Filter Type: ☐ MCE, 0.8 µm, 25mm ☐ MCE, 0.45µm, 25mm ☐ MCE, 0.8µm, 37mm ☐ Other ______

Sample # / Date	Sample Type	Sample Protocol	Location / Activity / Material Description	Time On/Off	LPM	Total Min. / Total Vol. / Fibers/Fields	Results
# 01	☐ Post ☐ Area ☐ Background ☐ Personal ☐ Blank ☐ Bulk	☐ Amb. ☐ ALS ☐ Agg.	[illegible]	on ______ off ______ pump# ______	on ______ end ______ Ave ______ Roto# ______		
# 02	☐ Post ☐ Area ☐ Background ☐ Personal ☐ Blank ☐ Bulk	☐ Amb. ☐ ALS ☐ Agg.		on ______ off ______ pump# ______	on ______ end ______ Ave ______ Roto# ______		
# 03	☐ Post ☐ Area ☐ Background ☐ Personal ☐ Blank ☐ Bulk	☐ Amb. ☐ ALS ☐ Agg.		on ______ off ______ pump# ______	on ______ end ______ Ave ______ Roto# ______		
# 04	☐ Post ☐ Area ☐ Background ☐ Personal ☐ Blank ☐ Bulk	☐ Amb. ☐ ALS ☐ Agg.	[illegible]	on ______ off ______ pump# ______	on ______ end ______ Ave ______ Roto# ______		
# 05	☐ Post ☐ Area ☐ Background ☐ Personal ☐ Blank ☐ Bulk	☐ Amb. ☐ ALS ☐ Agg.		on ______ off ______ pump# ______	on ______ end ______ Ave ______ Roto# ______		
# [illegible]	☐ Post ☐ Area ☐ Background ☐ Personal ☐ Blank ☐ Bulk	☐ Amb. ☐ ALS ☐ Agg.		on ______ off ______ pump# ______	on ______ end ______ Ave ______ Roto# ______		
# [illegible]	☐ Post ☐ Area ☐ Background ☐ Personal ☐ Blank ☐ Bulk	☐ Amb. ☐ ALS ☐ Agg.	[illegible]	on ______ off ______ pump# ______	on ______ end ______ Ave ______ Roto# ______		
# [illegible]	☐ Post ☐ Area ☐ Background ☐ Personal ☐ Blank ☐ Bulk	☐ Amb. ☐ ALS ☐ Agg.	[illegible]	on ______ off ______ pump# ______	on ______ end ______ Ave ______ Roto# ______		
# [illegible]	☐ Post ☐ Area ☐ Background ☐ Personal ☐ Blank ☐ Bulk	☐ Amb. ☐ ALS ☐ Agg.		on ______ off ______ pump# ______	on ______ end ______ Ave ______ Roto# ______		

CHAIN OF CUSTODY

Relinquished By:	Date/Time	Received By:	Date/Time

Sample # ______
Count 1: ______ fibers/ ______ fields Y_1 = ______
Count 2: ______ fibers/ ______ fields Y_2 = ______

If:
______ < ______ So PASS
______ > ______ So FAIL

If $|Y_1 - Y_2| < [(Y_1 + Y_2) * 2.8 * Cv / 2]$

where: $Y_x = ((\text{Fibers/Fields})_{\text{count } x} / 0.00785)^{1/2}$
C_v = 0.30 for 1-25 fibers counted
= 0.24 for 26-50 fibers counted
= 0.16 for 51-75 fibers counted

WHITE - RETAIN WITH SAMPLES *CANARY - FILE COPY*

ProTech
Consulting & Engineering

1755 E. Bayshore Rd., #14B
Redwood City, CA 94063
Phone: (650)569-4020 Fax: (650) 569-4023

Environmental Services

Page [illegible] of [illegible]
Job # [illegible]
P.O. # [illegible]

General Information

Date: [illegible]
Job ID: [illegible]
[illegible]
Collected By: [illegible]
Lab: ______

Analysis Requested

☐ PCM NIOSH 7400
☐ TEM
  ○ Level 2
  ○ AHERA
☐ PLM BULK
☐ AA Lead, Air
☐ AA Lead, Bulk
☐ AA Lead ______

Turn Around Time

☐ Rush
☐ 8 hours
☐ 24 hours
☐ 48 hours
☐ 3-5 days
☐ ______

Special Instructions

☐ Prior Positive

Filter Type: ☐ MCE, 0.8 µm, 25mm ☐ MCE, 0.45µm, 25mm ☐ MCE, 0.8µm, 37mm ☐ Other ______

Sample # / Date	Sample Type	Sample Protocol	Location / Activity / Material Description	Time On/Off	LPM	Total Min. / Total Vol. / Fibers/Fields	Results
# 10	☐ Post ☐ Area ☐ Background ☐ Personal ☐ Blank ☐ Bulk	☐ Amb. ☐ ALS ☐ Agg.	[illegible]	on off pump#	on end Ave Roto#		
# 11	☐ Post ☐ Area ☐ Background ☐ Personal ☐ Blank ☐ Bulk	☐ Amb. ☐ ALS ☐ Agg.	[illegible] [illegible]	on off pump#	on end Ave Roto#		
# 12	☐ Post ☐ Area ☐ Background ☐ Personal ☐ Blank ☐ Bulk	☐ Amb. ☐ ALS ☐ Agg.	[illegible] [illegible]	on off pump#	on end Ave Roto#		
#	☐ Post ☐ Area ☐ Background ☐ Personal ☐ Blank ☐ Bulk	☐ Amb. ☐ ALS ☐ Agg.		on off pump#	on end Ave Roto#		
#	☐ Post ☐ Area ☐ Background ☐ Personal ☐ Blank ☐ Bulk	☐ Amb. ☐ ALS ☐ Agg.		on off pump#	on end Ave Roto#		
#	☐ Post ☐ Area ☐ Background ☐ Personal ☐ Blank ☐ Bulk	☐ Amb. ☐ ALS ☐ Agg.		on off pump#	on end Ave Roto#		
#	☐ Post ☐ Area ☐ Background ☐ Personal ☐ Blank ☐ Bulk	☐ Amb. ☐ ALS ☐ Agg.		on off pump#	on end Ave Roto#		
#	☐ Post ☐ Area ☐ Background ☐ Personal ☐ Blank ☐ Bulk	☐ Amb. ☐ ALS ☐ Agg.		on off pump#	on end Ave Roto#		
#	☐ Post ☐ Area ☐ Background ☐ Personal ☐ Blank ☐ Bulk	☐ Amb. ☐ ALS ☐ Agg.		on off pump#	on end Ave Roto#		

CHAIN OF CUSTODY

Relinquished By:	Date/Time	Received By:	Date/Time

Sample # ______
Count 1: ______ fibers/______ fields Y_1 = ______
Count 2: ______ fibers/______ fields Y_2 = ______

If:
______ < ______ So **PASS**
______ > ______ So **FAIL**

If $|Y_1 - Y_2| < [(Y_1+Y_2) * 2.8 * Cv / 2]$

where: $Y_x = ((\text{Fibers/Fields})_{\text{count } x} / 0.00785)^{1/2}$
C_v = 0.30 for 1-25 fibers counted
= 0.24 for 26-50 fibers counted
= 0.16 for 51-75 fibers counted

WHITE - RETAIN WITH SAMPLES *CANARY - FILE COPY*

APPENDIX C

Earth Safety Dynamics' Personnel & Fenceline Air-Sampling Report

Earth Safety Dynamics
Industrial Hygiene Monitoring Report

DATE: December 2, 2003

TO: Mr. David Allen, Aqua Science Engineers

FROM: Kevin R. Braun, CIH

SUBJECT: Industrial Hygiene Monitoring No. 110603-01
Airborne Dust and Lead Exposure during Site Excavation
1455 5th Street, Oakland, California

I. EXECUTIVE SUMMARY

On November 6, 2003, air sampling was performed to evaluate personnel exposure to airborne inorganic lead during excavation at the residential construction site located at 1455 5th Street in Oakland, California. The work undertaken and monitored consisted of excavation of lead-contaminated soils to end dumps for manifested transport to offsite disposal. Air samples were taken over a full work shift from the breathing zones of three two workers, from the truck loading and decontamination zone, and from the downwind (Mandela Parkway Fence Line) perimeter of the site.

All lead concentrations were below applicable exposure limits. Detectable concentrations of lead were found in one personal (breathing zone) sample; none was detected elsewhere in or at the perimeter of the work area.

The limit of detection for the sample volumes and analytical method was approximately 1-2 $\mu g/m^3$, well below the established action level of 30 $\mu g/m^3$. One average personal exposure was measured at 1.0 $\mu g/m^3$; all others areas were assessed below the method limit of detection. This indicates that engineering controls were effective; this work is therefore believed to have resulted in no significant airborne exposure to site personnel or surrounding communities.

II. METHODS

Air samples were obtained using calibrated SKC Air-Check 50 portable sampling pumps fitted with mixed cellulose-ester filters. Air flow calibrations were performed prior and subsequent to sampling using a primary gas flow standard, a Buck Model M-5 Calibrator, in order to determine average flow rates for sampling periods. The samples were obtained at average collection rates set in accordance with standard NIOSH methodologies (NIOSH Method 7300).

Workers were monitored as follows:

- **Worker 1: Francisco Fregoso, Excavator Operator** – This worker used an excavator to excavate and load soils to end dumps for manifested disposal. The sample was taken from his immediate breathing zone for a full shift.

- **Worker 2: Alex, Villalbazo, Dust Control and Grade Verification** – This worker used fire hose supplied by a hydrant to perform dust suppression for excavation and loading operations as well as site haul roads. He also worked closely with the operator to verify grade elevation for each lift taken from contaminated areas. The sample was taken from his immediate breathing zone for a full shift.

Areas sampled were identified as follows:

- **Area 1: Perimeter at Gate-** This sample location was at the perimeter of the project at the fenceline separating the subject lot from the sidewalk along 5th Street.

- **Area 2: Downwind Perimeter** - This sample location was at the downwind (southeast) perimeter of the project at the fenceline separating the subject lot from the adjoining residence.

- **Area 3: Downwind Perimeter** - This sample location was at the downwind (southwest) perimeter of the project at the fenceline separating the subject lot from the adjoining residence.

III. RESULTS

3.1 SAMPLE ANALYSIS

Samples were delivered samples were delivered under strict chain-of-custody protocol to Data Chem Laboratories of Cincinatti, Ohio. Data Chem is accredited by the American Industrial Hygiene Association and Environmental Protection Agency. Samples were digested and analyzed by in accordance with NIOSH Method 7300.

Full analytical and quality assurance reports are included in the appendices of this document.

3.2 RESULTS

Integrated Sample Time-Weighted Average (TWA) Results

Sample	Description	[Lead] (µg/filter)	[Lead] (µg/m^3)	PEL(µg/m^3)†	A.L. (µg/m^3)††
110603-01	Worker 1	1.	1.0 µg/m^3	50 µg/m^3	30 µg/m^3
110603-02	Worker 2	N.D. *	< 0.9 µg/m^3 *	50 µg/m^3	30 µg/m^3
110603-03	Area 1	N.D. *	< 0.9 µg/m^3 *	50 µg/m^3	30 µg/m^3
110603-04	Area 2	N.D. *	< 0.9 µg/m^3 *	50 µg/m^3	30 µg/m^3
110603-05	Area 3	N.D. *	< 1.0 µg/m^3 *	50 µg/m^3	30 µg/m^3
100803-06	Blank	N.D. *	N.A. **	50 µg/m^3	30 µg/m^3

Units: Micrograms inorganic lead; micrograms lead per cubic meter (µg/m^3)

(1)	*	Indicates sample concentration below the method limit of detection
(2)	**	None detected (Blank sample; 0 air volume sampled)
(3)	†	Permissible Exposure Limit (PEL; 8 CCR 5155 and 1532.1)
(4)	††	Action Level (Title 8 CCR, 1532.1)

IV. DISCUSSION AND RECOMMENDATIONS

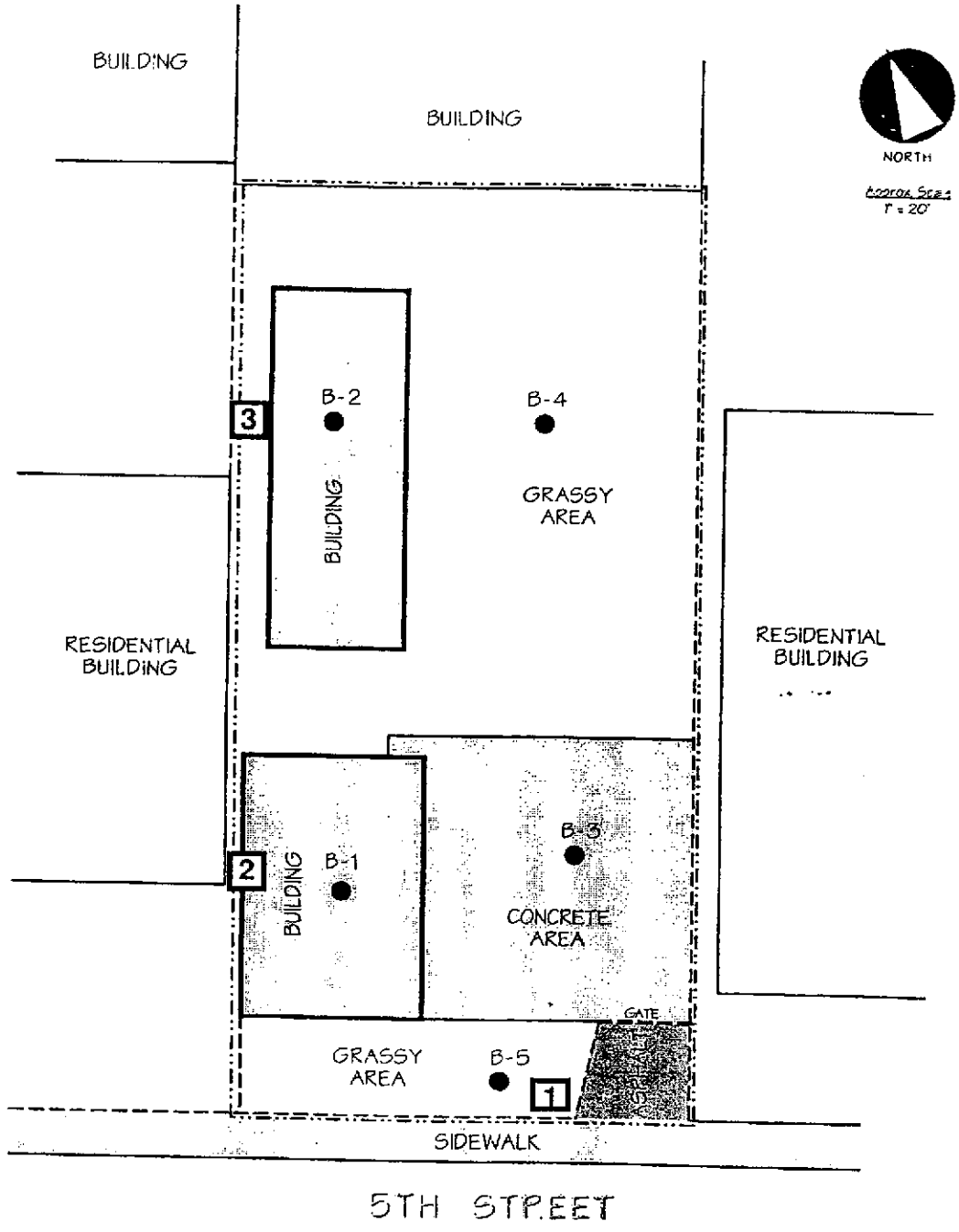
No results were obtained for inorganic lead indicating any personnel exposures in excess of published Permissible Exposure, Short Term Exposure, or Ceiling Limits as defined in 8 CCR 5155. Also, the Action Level of 30 micrograms per cubic meter as defined in 8 CCR 1532.1 was not exceeded or approached in any area or worker breathing zone. No significant or harmful lead exposure is therefore thought to have resulted from the work conducted at this site on the days monitored, which have been indicated by project management as representative of all site activity conducted and conditions encountered.

Dust control measures in effect on the days of monitoring appeared to be extremely effective. This is reinforced by the extremely low levels of lead particulate detected in the monitored areas and breathing zones. Ratios of total dust to lead are not expected to rise during subsequent observations, since excavations were reported on the day of monitoring to be performed in the area of highest concentrations of lead in soil. Work may therefore proceed without modification of work practices or addition of protective equipment.

References

1. 8 CCR 5155: Airborne Contaminants
2. 8 CCR 1532.1: Lead in Construction

APPENDIX A: AREA SAMPLE LOCATIONS



LEGEND

APROX. PROPERTY BOUNDARY

B-1 APROX. BORING LOCATION

FENCE

Area Sample Locations

VACANT PROPERTY
1455 5TH STREET
OAKLAND, CA

AQUA SCIENCE ENGINEERS | FIGURE 2

APPENDIX B: FIELD DATA SHEETS

INTEGRATED SAMPLING DATA SHEET

PROJECT: C027:10 - Aqua [illegible] [illegible] Removal

DATE: 11/6/03 OPERATOR: Kevin R. Blaun

Meteorological Conditions:

Time	Ambient Temperature	Barometric Pressure	Relative Humidity	Atmospheric Conditions	Wind Speed & Direction
0700	57°F			70% Cl	N 2-4
1400	64°F			2+ Rain	N 6-8

Pump Model: [illegible] 5 (all) **Serial #:** 1
Sample Description: [illegible] Vidalbag; [illegible] / [illegible] / Dust Control

Sample	Analyte	Flow(i) (lpm)	Flow(f) (lpm)	Average lpm	Time(i)	Time(f)	Elapsed Time	Sample Volume
110603-01	Pb	2.5	2.5	2.5	0811	15:11	420'	1050 L

Pump Model: **Serial #:** 2
Sample Description: Perimeter @ [illegible] CRZ Exit

Sample	Analyte	Flow(i) (lpm)	Flow(f) (lpm)	Average lpm	Time(i)	Time(f)	Elapsed Time	Sample Volume
110603-02	Pb	2.5	2.7	2.6	0820	1500	420'	1092 L

Pump Model: **Serial #:** 3
Sample Description: Downwind @ SE Perimeter

Sample	Analyte	Flow(i) (lpm)	Flow(f) (lpm)	Average lpm	Time(i)	Time(f)	Elapsed Time	Sample Volume
110603-03	Pb	2.1	2.6	2.55	0830	1450	420'	1071 L

Pump Model: **Serial #:** 4
Sample Description: Downwind @ SW Perimeter

Sample	Analyte	Flow(i) (lpm)	Flow(f) (lpm)	Average lpm	Time(i)	Time(f)	Elapsed Time	Sample Volume
110603-04	Pb	2.5	2.6	2.55	0830	1450	420'	1071 L

Pump Model: **Serial #:** 5
Sample Description: Excavator Operator ([illegible]); loading trucks

Sample	Analyte	Flow(i) (lpm)	Flow(f) (lpm)	Average lpm	Time(i)	Time(f)	Elapsed Time	Sample Volume
110603-05	Pb	3.0	3.1	3.05	1100	15:11	255'	778 L

Sampled By: [signature]

Page 1 of 1

APPENDIX C: LABORATORY ANALYTICAL REPORT

DATA CHEM

Fax Transmittal Sheet

DATE: 11/20/03

TO: Kevin Braun

COMPANY: Earth Safety Dynamics PHONE:
FAX: 925-455-6634

FROM: MM PHONE: (513) 733-5336
FAX: (513) 733-5347

Number of pages including cover sheet: 4

MESSAGE:

Thanks:

TEST REPORT
Page 1 of 2
11/18/03

DATA CHEM LABORATORIES, INC.

Submitted To: Kevin Braun
Earth Safety Dynamics
70 Rockrose Street
Livermore, CA 94551

Reference Data:	**Lead**
Client Sample No.:	110603-01 through 110603-06
P.O. No.:	Not Available
Sample Location:	Not Available
Sample Type:	Filter
Method Reference:	NIOSH 7300
DCL Set ID No.:	03-S-5594
DCL Sample ID No.:	03-33317 through 03-33322
Sample Receipt Date:	11/14/2003
Preparation Date:	11/18/03
Analysis Date:	11/18/03

The samples were prepared and analyzed in accordance with NIOSH method 7300 using a Perkin Elmer 3000XL ICP.

The sample condition upon receipt was acceptable except where noted.

The results are in the enclosed data table. Results relate only to the items tested and are not blank corrected unless indicated in the data table.

This report shall not be reproduced except in full, without the written approval of the laboratory.

Chris Baugues
Analyst

Reviewer

CINCINNATI OFFICE
4388 GLENDALE-MILFORD ROAD
CINCINNATI, OHIO 45242-3706
513 733-5336, FAX 513 733-5347

WEST COAST OFFICE
11 SANTA YORMA COURT
NOVATO, CALIFORNIA 94945
800 280-8071, FAX 415 893-8469

TEST REPORT
Page 2 of 2
03-S-5594

Results
Lead

Client #	DCL #	Sample Volume (L)	µg/sample	mg/m³
110603-01	03-33317	1050	1.	0.001
110603-02	03-33318	1092	ND	<0.0009
110603-03	03-33319	1071	ND	<0.0009
110603-04	03-33320	1071	ND	<0.0009
110603-05	03-33321	778	ND	<0.001
110603-06	03-33322	0	ND	-
	Prep Blank		ND	
% Recovery	LCS		109.	
RPL			1.	

ND = not detected at or above the reporting limit (RPL).
LCS = laboratory control sample.

Chris Baugues
Analyst

Reviewer

DATA CHEM LABORATORIES, INC.

ANALYTICAL REQUEST FORM

1. ☒ REGULAR Status

☐ RUSH Status Requested - ADDITIONAL CHARGE
RESULTS REQUIRED BY _____ DATE
CONTACT DATACHEM LABS PRIOR TO SENDING SAMPLES

2. Date 11/7/03 Purchase Order No. _____
3. Company Name Earth Safety Economics
Address 70 Rickar Rd
Livermore, CA 94551
Person to Contact Kevin Braun
Telephone (925) 447-6601
Fax Telephone (925) 447-6634
E-mail Address KRBraun1@aol.com
Billing Address (if different from above)

4. Quote No. _____
DCL Project Manager _____
5. Sample Collection
Sampling Site _____
Industrial Process _____
Date of Collection 11/6/03
Time Collected _____
Date of Shipment 11/7/03
Chain of Custody No. _____

03-S-5594

6. REQUEST FOR ANALYSES

03-

Laboratory Use Only	Client Sample Number	Matrix*	Sample Volume	ANALYSES REQUESTED - Use method number if known	Units**
33317	110603-01	BLEP	1050 L	(NIOSH 7300) Pb	2
33318	-02		1092 L		
33319	-03		1071 L		
33320	-04		1071 L		
33321	-05		778 L		
33322	-06		0		

* Specify: Solid sorbent tube, e.g. Charcoal; Filter type; Impinger solution; Bulk sample; Blood; Urine; Tissue; Soil; Water; Other

** 1. mg/sample 2. mg/m³ 3. ppm 4. % 5. ____ (other) Please indicate one or more units in the column entitled Units**

Comments _____

Possible Contamination and/or Chemical Hazards _____

7. Chain of Custody (Optional)

Relinquished by	_____	Date/Time	11/7/03 @ 1500
Received by	(DCL)	Date/Time	11/14/03 13:50
Relinquished by	_____	Date/Time	_____
Received by	_____	Date/Time	_____
Relinquished by	_____	Date/Time	_____
Received by	_____	Date/Time	_____

960 West LeVoy Drive / Salt Lake City, UT 84123 800-356-9135 or 801-266-7700 / FAX: 801-268-9992
DATACHEM LABORATORIES, INC.

APPENDIX D

Hazardous Waste Manifests

State of California—Environmental Protection Agency
Form Approved OMB No. 2050–0039 (Expires 9-30-99)
Please print or type. *Form designed for use on elite (12-pitch) typewriter.*

See Instructions on back of page 6.

Department of Toxic Substances Control
Sacramento, California

IN CASE OF EMERGENCY OR SPILL, CALL THE NATIONAL RESPONSE CENTER 1-800-424-8802; WITHIN CALIFORNIA, CALL 1-800-852-7550

UNIFORM HAZARDOUS WASTE MANIFEST

GENERATOR

1. Generator's US EPA ID No. [illegible] Manifest Document No. 2 1 3 3 [illegible]
2. Page 1 of
Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
[illegible]
[illegible]

4. Generator's Phone (510) [illegible]

A. State Manifest Document Number 23321335

B. State Generator's ID

5. Transporter 1 Company Name [illegible]
6. US EPA ID Number [illegible]

C. State Transporter's ID (Reserved.)
D. Transporter's Phone [illegible]-823-[illegible]

7. Transporter 2 Company Name
Union Pacific Lines, [illegible]
Omaha, NE 681[illegible]
8. US EPA ID Number NED001792910

E. State Transporter's ID (Reserved.)
F. Transporter's Phone (402) 271-4400

9. Designated Facility Name and Site Address
ECDC Environmental
1111 West Highway 123
East Carbon, UT 84520
10. US EPA ID Number [illegible]

G. State Facility's ID UTAH94-1212
H. Facility's Phone (800) 444-4451

11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste Number
a. Non-RCRA Hazardous Waste Solid (Non DOT regulated)	001	CM	[illegible]	T	State 611 EPA/Other Non-RCRA
b.					State EPA/Other
c.					State EPA/Other
d.					State EPA/Other

J. Additional Descriptions for Materials Listed Above
Soil from site clean-up @ 1455 - 5th St, Oakland, CA

K. Handling Codes for Wastes Listed Above
a. 03
b.
c.
d.

15. Special Handling Instructions and Additional Information
[illegible]

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name	Signature	Month	Day	Year
[illegible]	[signature]	1 1	0 6	0 5

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
[illegible]	[signature]	[illegible]	[illegible]	[illegible]

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name	Signature	Month	Day	Year

DO NOT WRITE BELOW THIS LINE.

DTSC 8022A (1/99)
EPA 8700—22

Yellow: GENERATOR RETAINS

State of California—Environmental Protection Agency
Form Approved OMB No. 2050-0039 (Expires 9-30-99)
Please print or type. *Form designed for use on elite (12-pitch) typewriter.*

See Instructions on back of page 6.

Department of Toxic Substances Control
Sacramento, California

IN CASE OF EMERGENCY OR SPILL, CALL THE NATIONAL RESPONSE CENTER 1-800-424-8802: WITHIN CALIFORNIA, CALL 1-800-852-7550

UNIFORM HAZARDOUS WASTE MANIFEST

GENERATOR

1. Generator's US EPA ID No. [illegible] Manifest Document No. 2 1 3 3 6
2. Page 1 of
Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
[illegible]
[illegible]

4. Generator's Phone (510) [illegible]

A. State Manifest Document Number 23321336

B. State Generator's ID

5. Transporter 1 Company Name [illegible]
6. US EPA ID Number [illegible]

C. State Transporter's ID [Reserved.]
D. Transporter's Phone 707-523-1433

7. Transporter 2 Company Name [illegible]
Omaha, NE 68179
8. US EPA ID Number NED001792910

E. State Transporter's ID [Reserved.]
F. Transporter's Phone (402) 271-4400

9. Designated Facility Name and Site Address
[illegible]
[illegible]
[illegible]
10. US EPA ID Number UTD093012201

G. State Facility's ID UTAH94-22
H. Facility's Phone (800) 444-4451

11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste Number
a. Non-RCRA Hazardous Waste Solid (Non DOT regulated)	001	CM	00017	T	State 611 / EPA/Other Non-RCRA
b.					State / EPA/Other
c.					State / EPA/Other
d. [illegible]					State / EPA/Other

J. Additional Descriptions for Materials Listed Above
Soil from site clean-up @ 1455 - 5th St., Oakland, CA

K. Handling Codes for Wastes Listed Above
a. 03 b. c. d.

15. Special Handling Instructions and Additional Information
[illegible]

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

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Printed/Typed Name	Signature	Month	Day	Year
DAVID ALLENBACK Agent for Generators	[signature]	11	06	02

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
[illegible]	[signature]	11	06	02

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name	Signature	Month	Day	Year
[illegible]				

DO NOT WRITE BELOW THIS LINE.

DTSC 8022A (1/99)
EPA 8700—22

Yellow: GENERATOR RETAINS

State of California—Environmental Protection Agency
Form Approved OMB No. 2050-0039 (Expires 9-30-99)
Please print or type. *Form designed for use on elite (12-pitch) typewriter.*

See Instructions on back of page 6.

Department of Toxic Substances Control
Sacramento, California

IN CASE OF EMERGENCY OR SPILL, CALL THE NATIONAL RESPONSE CENTER 1-800-424-8802: WITHIN CALIFORNIA, CALL 1-800-852-7550

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.: CAC002867678 — Manifest Document No.: 21337

2. Page 1 of

Information in the shaded areas is not required by Federal law.

A. State Manifest Document Number: 23321337

GENERATOR

3. Generator's Name and Mailing Address
Mr. Andy Hall and Ms. Jean Hall
[illegible] Avenue, Oakland, CA 946[illegible] Attn: Mr. Andy Hall

4. Generator's Phone (510) [illegible]30-2702

B. State Generator's ID

5. Transporter 1 Company Name: Cross Trucking

6. US EPA ID Number: CA000013726

C. State Transporter's ID [Reserved.]

D. Transporter's Phone (707) 827-1483

7. Transporter 2 Company Name
Union Pacific Lines, 1416 Dodge Street
Omaha, NE 68179

8. US EPA ID Number: NED001792910

E. State Transporter's ID [Reserved.]

F. Transporter's Phone (402) 271-4400

9. Designated Facility Name and Site Address
[illegible] Environmental
[illegible] West Highway 123
East Carbon, UT 84520

10. US EPA ID Number: UTC003012201

G. State Facility's ID: UTAH94-121

H. Facility's Phone (800) 444-4451

11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste Number
a. Non-RCRA Hazardous Waste Solid (Non DOT regulated)	001	CM	00022	T	State 611 EPA/Other Non-RCRA
b.					State EPA/Other
c.					State EPA/Other
d.					State EPA/Other

J. Additional Descriptions for Materials Listed Above
Soil from site clean-up @ 1455 - 5th St., Oakland, CA

K. Handling Codes for Wastes Listed Above
a. 03 b.
c. d.

15. Special Handling Instructions and Additional Information
[illegible]

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Printed/Typed Name	Signature	Month	Day	Year
David Allen, ASE, Agent for	[signature]	11	06	03

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
[signature]	Brady Harris	11	06	03

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name	Signature	Month	Day	Year

DO NOT WRITE BELOW THIS LINE.

DTSC 8022A (1/99)
EPA 8700—22

Yellow: GENERATOR RETAINS

State of California--Environmental Protection Agency
Form Approved OMB No. 2050-0039 (Expires 9-30-99)
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See Instructions on back of page 6.

Department of Toxic Substances Control
Sacramento, California

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.	Manifest Document No.	2. Page 1 of	Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address	A. State Manifest Document Number 23321338
4. Generator's Phone ( )	B. State Generator's ID
5. Transporter 1 Company Name / 6. US EPA ID Number	C. State Transporter's ID [Reserved.] / D. Transporter's Phone
7. Transporter 2 Company Name / 8. US EPA ID Number	E. State Transporter's ID [Reserved.] / F. Transporter's Phone (402) 271-4400
9. Designated Facility Name and Site Address / 10. US EPA ID Number	G. State Facility's ID UTAH9412 / H. Facility's Phone (800) 444-4451

11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste Number
a. Non-RCRA Hazardous Waste Solid (Non DOT regulated)	001	CM	00022	T	State 611 / EPA/Other Non-RCRA
b.					State / EPA/Other
c.					State / EPA/Other
d.					State / EPA/Other

J. Additional Descriptions for Materials Listed Above	K. Handling Codes for Wastes Listed Above
Soil from site clean-up @ 1455 - 5th St., Oakland, CA	a. 03 / b. / c. / d.

15. Special Handling Instructions and Additional Information

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Printed/Typed Name	Signature	Month	Day	Year
		11	06	03

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name	Signature	Month	Day	Year

DO NOT WRITE BELOW THIS LINE.

GENERATOR

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23321338

DTSC 8022A (1/99)
EPA 8700—22

Yellow: GENERATOR RETAINS

State of California—Environmental Protection Agency
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See Instructions on back of page 6.

Department of Toxic Substances Control
Sacramento, California

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.: CACDDDBFIDDD [illegible]
Manifest Document No.: 21339
2. Page 1 of
Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address: [illegible]
4. Generator's Phone (510) [illegible]

A. State Manifest Document Number **23321339**
B. State Generator's ID

5. Transporter 1 Company Name: [illegible]
6. US EPA ID Number: [illegible]
C. State Transporter's ID [Reserved.]
D. Transporter's Phone 415 716 9143

7. Transporter 2 Company Name: Union Pacific Lines, 1416 Dodge Street, Omaha NE 68179
8. US EPA ID Number: NED001792910
E. State Transporter's ID [Reserved.]
F. Transporter's Phone (402) 271-4400

9. Designated Facility Name and Site Address: ECDC Environmental, [illegible] West Highway 123, East Carbon, UT 84520
10. US EPA ID Number: UTD991301201 [illegible]
G. State Facility's ID UTAH94-22
H. Facility's Phone (800) 444-4451

11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste Number
a. Non-RCRA Hazardous Waste Solid (Non DOT regulated)	001	CM	00022	T	State 611 EPA/Other Non-RCRA
b.					State EPA/Other
c.					State EPA/Other
d.					State EPA/Other

J. Additional Descriptions for Materials Listed Above
Soil from site clean-up @ 1455 - 5th St., Oakland, CA

K. Handling Codes for Wastes Listed Above
a. 03
b.
c.
d.

15. Special Handling Instructions and Additional Information
[illegible]
200-093-1

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Printed/Typed Name	Signature	Month	Day	Year
DAVID ALLEN, ASE Agent for Generators	[signature]	11	06	03

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
[illegible]	[signature]	11	[illegible]	[illegible]

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

19. Discrepancy Indication Space

20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name	Signature	Month	Day	Year

GENERATOR / TRANSPORTER / FACILITY

IN CASE OF EMERGENCY OR SPILL, CALL THE NATIONAL RESPONSE CENTER 1-800-424-8802: WITHIN CALIFORNIA, CALL 1-800-852-7550

DO NOT WRITE BELOW THIS LINE.

DTSC 8022A (1/99)
EPA 8700—22

Yellow: GENERATOR RETAINS

State of California—Environmental Protection Agency
Form Approved OMB No. 2050-0039 (Expires 9-30-99)
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Department of Toxic Substances Control
Sacramento, California

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UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. [illegible] Manifest Document No. 21340

2. Page 1 of

Information in the shaded areas is not required by Federal law.

GENERATOR

3. Generator's Name and Mailing Address
Mr. Andy Hall and Ms. [illegible] Hall
[illegible] Avenue, Oakland, CA [illegible]

4. Generator's Phone (510) [illegible]

A. State Manifest Document Number 23321340

B. State Generator's ID

5. Transporter 1 Company Name [illegible]

6. US EPA ID Number [illegible]

C. State Transporter's ID [Reserved.]

D. Transporter's Phone [illegible]

7. Transporter 2 Company Name [illegible]
Omaha NE 68179

8. US EPA ID Number NED001792910

E. State Transporter's ID [Reserved.]

F. Transporter's Phone (402) 271-4400

9. Designated Facility Name and Site Address
[illegible] Environmental
[illegible] West Highway [illegible]
East Carbon, UT 84520

10. US EPA ID Number UTD991301748

G. State Facility's ID UTAH94-22

H. Facility's Phone (800) 444-4451

11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste Number
a. Non-RCRA Hazardous Waste Solid (Non DOT regulated)	001	CM	00022	T	State 611 EPA/Other Non-RCRA
b.					State EPA/Other
c.					State EPA/Other
d.					State EPA/Other

J. Additional Descriptions for Materials Listed Above
Soil from site clean-up @ 1455 - 5th St., Oakland, CA

K. Handling Codes for Wastes Listed Above
a. 03 b.
c. d.

15. Special Handling Instructions and Additional Information
[illegible]

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Printed/Typed Name	Signature	Month	Day	Year
David Allen As Agent for Generators	[signature]	11	06	03

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
[illegible]	[signature]	11	06	03

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

FACILITY

19. Discrepancy Indication Space

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Printed/Typed Name	Signature	Month	Day	Year

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DTSC 8022A (1/99)
EPA 8700—22

Yellow: GENERATOR RETAINS

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Department of Toxic Substances Control
Sacramento, California

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UNIFORM HAZARDOUS WASTE MANIFEST

GENERATOR

1. Generator's US EPA ID No. CACDD[illegible] Manifest Document No. 2 1 3 4 1

2. Page 1 of

Information in the shaded areas is not required by Federal law.

A. State Manifest Document Number 23321341

3. Generator's Name and Mailing Address
Mr. Andy Hall and Ms. Jean Hall
[illegible] Avenue, Oakland, CA [illegible] Attn: Mr. Andy Hall

4. Generator's Phone (510) 430-2702

B. State Generator's ID

5. Transporter 1 Company Name Dirke Transportation

6. US EPA ID Number CAL000[illegible]566

C. State Transporter's ID (Reserved.)

D. Transporter's Phone [illegible]

7. Transporter 2 Company Name [illegible]
Omaha NE [illegible]

8. US EPA ID Number NED00[illegible]

E. State Transporter's ID (Reserved.)

F. Transporter's Phone (402) 271-4400

9. Designated Facility Name and Site Address
[illegible] Environmental
[illegible] West Highway [illegible]
[illegible], UT [illegible]

10. US EPA ID Number UT[illegible]

G. State Facility's ID UTAH94-22

H. Facility's Phone (800) 444-4451

11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste Number
a. Non RCRA Hazardous Waste Solid (Non DOT regulated)	001	CM	00022	[illegible]	State 611 EPA/Other Non-RCRA
b.					State EPA/Other
c.					State EPA/Other
d.					State EPA/Other

J. Additional Descriptions for Materials Listed Above
Soil from site clean-up @ 1455 - 5th St., Oakland, CA

K. Handling Codes for Wastes Listed Above
a. 03 b.
c. d.

15. Special Handling Instructions and Additional Information
[illegible]

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Printed/Typed Name	Signature	Month	Day	Year
DAVID ALLEN, AEI, Agent for Generator	[signature]	11	06	03

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
Mike Dirke	[signature]	11	06	03

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name	Signature	Month	Day	Year

DO NOT WRITE BELOW THIS LINE.

DTSC 8022A (1/99)
EPA 8700—22

Yellow: GENERATOR RETAINS

State of California—Environmental Protection Agency
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Department of Toxic Substances Control
Sacramento, California

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. CAD982572272 Manifest Document No. 23213421 2. Page 1 of

Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
Mr. Andy Hall and Ms. Jean Hall
[illegible] Oakland, CA 94601 attn: Mr. Andy Hall

A. State Manifest Document Number 2332342

4. Generator's Phone (510) 430-2792

B. State Generator's ID

5. Transporter 1 Company Name: C.K.S. Trucking
6. US EPA ID Number: CAD009152916
C. State Transporter's ID [Reserved.]
D. Transporter's Phone: (559) 823-1483

7. Transporter 2 Company Name: [illegible] 4th Orange Street [illegible]
8. US EPA ID Number: NEDP017922
E. State Transporter's ID [Reserved.]
F. Transporter's Phone: (402) 271-4400

9. Designated Facility Name and Site Address
E.C.D. Environmental
[illegible] West Highway 125
East Carbon, UT 84520
10. US EPA ID Number: UTD093022202
G. State Facility's ID: UTAH94-22
H. Facility's Phone: (800) 444-4451

11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste Number
a. Non-RCRA Hazardous Waste Solid (Non DOT regulated)	001	CM	00022	T	State 611 EPA/Other Non-RCRA
b.					State EPA/Other
c.					State EPA/Other
d.					State EPA/Other

J. Additional Descriptions for Materials Listed Above
Soil from site clean-up @ 1455 - 5th St., Oakland, CA

K. Handling Codes for Wastes Listed Above
a. 03 b.
c. d.

15. Special Handling Instructions and Additional Information
[illegible] Name of Site
[illegible] Project No. [illegible]-2

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Printed/Typed Name	Signature	Month	Day	Year
WILLIAM ALLEN, ASC Agent for Generator	[signature]	11	06	03

Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
Cody MARRS	[signature]	11	06	03

Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

Discrepancy Indication Space

Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed Name	Signature	Month	Day	Year

DO NOT WRITE BELOW THIS LINE.

Yellow: GENERATOR RETAINS

GENERATOR

ENTER 1-800-424-8802: WITHIN CALIFORNIA, CALL 1-800-852-7550

State of California—Environmental Protection Agency
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Department of Toxic Substances Control
Sacramento, California

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UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.: CAC002571076 — Manifest Document No.: 21343
2. Page 1 of

Information in the shaded areas is not required by Federal law.

A. State Manifest Document Number: 23321343

3. Generator's Name and Mailing Address: [illegible]
4. Generator's Phone: 510 [illegible]-2792

B. State Generator's ID:

5. Transporter 1 Company Name: [illegible handwriting]
6. US EPA ID Number: CAL000275566 [illegible]

C. State Transporter's ID [Reserved.]
D. Transporter's Phone: 707 828-1863 [illegible]

7. Transporter 2 Company Name: Union Pacific Lines 1416 Dodge Street, Omaha, NE 68179
8. US EPA ID Number: NED001792910

E. State Transporter's ID [Reserved.]
F. Transporter's Phone: (402) 271-4400

9. Designated Facility Name and Site Address: ECDC Environmental, 1111 West Highway 123, East Carbon, UT 84520
10. US EPA ID Number: UTD093012201

G. State Facility's ID: UTAH94-22
H. Facility's Phone: (800) 444-4451

GENERATOR

11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste Number
a. Non-RCRA Hazardous Waste Solid (Non DOT regulated)	001	CM	00022	T	State 611; EPA/Other Non-RCRA
b.					State; EPA/Other
c.					State; EPA/Other
d.					State; EPA/Other

J. Additional Descriptions for Materials Listed Above: Soil from site clean-up @ 1455 - 5th St., Oakland, CA

K. Handling Codes for Wastes Listed Above: a. 03 b. c. d.

15. Special Handling Instructions and Additional Information: [illegible] Railcar No. [illegible] Container No. [illegible]

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Printed/Typed Name	Signature	Month	Day	Year
David Allen As Agent for Generator	[signature]	11	06	03

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
[illegible]	[signature]	11	06	03

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name	Signature	Month	Day	Year

DO NOT WRITE BELOW THIS LINE.

DTSC 8022A (1/99)
EPA 8700—22

Yellow: GENERATOR RETAINS

State of California--Environmental Protection Agency
Form Approved OMB No. 2050-0039 (Expires 9-30-99)
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Department of Toxic Substances Control
Sacramento, California

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UNIFORM HAZARDOUS WASTE MANIFEST

GENERATOR

1. Generator's US EPA ID No. [illegible] Manifest Document No. 2 1 3 4 4

2. Page 1 of

Information in the shaded areas is not required by Federal law.

A. State Manifest Document Number 23321344

3. Generator's Name and Mailing Address
[illegible]
[illegible]

4. Generator's Phone [illegible]

B. State Generator's ID

5. Transporter 1 Company Name
Al [illegible]

6. US EPA ID Number [illegible]

C. State Transporter's ID (Reserved.)

D. Transporter's Phone [illegible]

7. Transporter 2 Company Name
[illegible] Dodge Street
Omaha NE [illegible]

8. US EPA ID Number NED001752910

E. State Transporter's ID (Reserved.)

F. Transporter's Phone (402) 271-4400

9. Designated Facility Name and Site Address
[illegible] Environmental
[illegible] West Highway [illegible]
[illegible], UT [illegible]

10. US EPA ID Number UTD093012201

G. State Facility's ID UTAH94-22

H. Facility's Phone (800) 444-4451

11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste Number
a. Non RCRA Hazardous Waste Solid (Non DOT regulated)	001	CM	000[illegible]	[illegible]	State 611 EPA/Other Non-RCRA
b.					State EPA/Other
c.					State EPA/Other
d.					State EPA/Other

J. Additional Descriptions for Materials Listed Above
Soil from site clean-up @ 1455 - 5th St., Oakland, CA

K. Handling Codes for Wastes Listed Above
a. 03
b.
c.
d.

15. Special Handling Instructions and Additional Information
[illegible]
[illegible] NVRV [illegible]

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name	Signature	Month	Day	Year
DAVID ALLEN ASE, Agent for Generator	[signature]	11	06	03

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
[illegible]	[signature]	[illegible]	[illegible]	[illegible]

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name	Signature	Month	Day	Year
[illegible]				

DO NOT WRITE BELOW THIS LINE.

DTSC 8022A (1/99)
EPA 8700—22

Yellow: GENERATOR RETAINS

State of California—Environmental Protection Agency
Form Approved OMB No. 2050–0039 (Expires 9-30-99)
Please print or type. *Form designed for use on elite (12-pitch) typewriter.*

See Instructions on back of page 6.

Department of Toxic Substances Control
Sacramento, California

IN CASE OF EMERGENCY OR SPILL, CALL THE NATIONAL RESPONSE CENTER 1-800-424-8802: WITHIN CALIFORNIA, CALL 1-800-852-7550

UNIFORM HAZARDOUS WASTE MANIFEST

GENERATOR

1. Generator's US EPA ID No. / Manifest Document No.: CA [illegible] 2 1 3 4 5

2. Page 1 of

Information in the shaded areas is not required by Federal law.

A. State Manifest Document Number: 23321345

3. Generator's Name and Mailing Address: [illegible]
Oakland, CA [illegible]

B. State Generator's ID

4. Generator's Phone: [illegible]

5. Transporter 1 Company Name: [illegible]

6. US EPA ID Number: [illegible]

C. State Transporter's ID [Reserved.]

D. Transporter's Phone: [illegible]

7. Transporter 2 Company Name: Union Pacific [illegible] Dodge Street
Omaha, NE 68179

8. US EPA ID Number: NED001792910

E. State Transporter's ID [Reserved.]

F. Transporter's Phone: (402) 271-4400

9. Designated Facility Name and Site Address: [illegible] Environmental
[illegible] Highway [illegible]
East Carbon, UT 84520

10. US EPA ID Number: UTD 991301 [illegible]

G. State Facility's ID: UTAH94-22

H. Facility's Phone: (800) 444-4451

11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste Number
a. Non-RCRA Hazardous Waste Solid (Non DOT regulated)	001	CM	00022	[illegible]	State 611 / EPA/Other Non-RCRA
b.					State / EPA/Other
c.					State / EPA/Other
d.					State / EPA/Other

J. Additional Descriptions for Materials Listed Above: Soil from site clean-up @ 1455 - 5th St., Oakland, CA

K. Handling Codes for Wastes Listed Above: a. 03 b. c. d.

15. Special Handling Instructions and Additional Information: [illegible]

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Printed/Typed Name	Signature	Month	Day	Year
David Allen, ASE, Agent for Generators	[signature]	11	06	03

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
[illegible]	[signature]	11	06	03

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

FACILITY

19. Discrepancy Indication Space

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Printed/Typed Name	Signature	Month	Day	Year

DO NOT WRITE BELOW THIS LINE.

DTSC 8022A (1/99)
8700--22

Yellow: GENERATOR RETAINS

State of California—Environmental Protection Agency
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See Instructions on back of page 6.

Department of Toxic Substances Control
Sacramento, California

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. | Manifest Document No. | 2. Page 1 of | Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address

4. Generator's Phone ( )

A. State Manifest Document Number: 23321346

B. State Generator's ID

5. Transporter 1 Company Name | 6. US EPA ID Number

C. State Transporter's ID [Reserved.]

D. Transporter's Phone

7. Transporter 2 Company Name | 8. US EPA ID Number

E. State Transporter's ID [Reserved.]

F. Transporter's Phone: (402) 271-4400

9. Designated Facility Name and Site Address | 10. US EPA ID Number

G. State Facility's ID: UTAH94-22

H. Facility's Phone: (800) 444-4451

11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste Number
a. Non-RCRA Hazardous Waste Solid (Not DOT regulated)		DM	CM	T	State: 511 / EPA/Other: NON-RCRA
b.					State / EPA/Other
c.					State / EPA/Other
d.					State / EPA/Other

J. Additional Descriptions for Materials Listed Above: Soil from site clean-up @ 1455 - 5th St., Oakland, CA

K. Handling Codes for Wastes Listed Above: a. 03 | b. | c. | d.

15. Special Handling Instructions and Additional Information

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Printed/Typed Name	Signature	Month	Day	Year
DAVID MILLER Agent for Generator		1	06	03

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
		1	06	03

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

19. Discrepancy Indication Space

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Printed/Typed Name	Signature	Month	Day	Year

GENERATOR

TRANSPORTER

FACILITY

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DTSC 8022A (1/99)
EPA 8700—22

Yellow: GENERATOR RETAINS

State of California—Environmental Protection Agency
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Please print or type. *Form designed for use on elite (12-pitch) typewriter.*

See Instructions on back of page 6.

Department of Toxic Substances Control
Sacramento, California

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. CAC002627667 — Manifest Document No. 21347
2. Page 1 of
Information in the shaded areas is not required by Federal law.

A. State Manifest Document Number 23321347

3. Generator's Name and Mailing Address
Mr. Andy Hall and Ms. Joan Hall
... Avenue, Oakland, CA ... Attn: Mr. Andy Hall

B. State Generator's ID

4. Generator's Phone (510) ...

5. Transporter 1 Company Name [illegible]
6. US EPA ID Number [illegible]
C. State Transporter's ID [Reserved.]
D. Transporter's Phone ... 823 ...

7. Transporter 2 Company Name [illegible]
Omaha, NE ...
8. US EPA ID Number NED0017 ...
E. State Transporter's ID [Reserved.]
F. Transporter's Phone (402) 271-4400

9. Designated Facility Name and Site Address
... Environmental
... West Highway ...
East Carbon, UT 84520
10. US EPA ID Number UT ...
G. State Facility's ID UTAH94-22
H. Facility's Phone (800) 444-4451

11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste Number
a. Non RCRA Hazardous Waste Solid (Non DOT regulated)	001	CM	00011		State 611 EPA/Other Non-RCRA
b.					State EPA/Other
c.					State EPA/Other
d.					State EPA/Other

J. Additional Descriptions for Materials Listed Above
Soil from site clean-up @ 1455 - 5th St., Oakland, CA

K. Handling Codes for Wastes Listed Above
a. 03 b.
c. d.

15. Special Handling Instructions and Additional Information

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Printed/Typed Name	Signature	Month	Day	Year
DAVID ALLENDASE, Agent for Generator	[signature]	11	06	03

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
Mike Dale	[signature]	11	06	03

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

FACILITY

19. Discrepancy Indication Space

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Printed/Typed Name	Signature	Month	Day	Year

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DTSC 8022A (1/99)
EPA 8700—22

Yellow: GENERATOR RETAINS

State of California—Environmental Protection Agency
Form Approved OMB No. 2050-0039 (Expires 9-30-99)
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See Instructions on back of page 6.

Department of Toxic Substances Control
Sacramento, California

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UNIFORM HAZARDOUS WASTE MANIFEST

GENERATOR

1. Generator's US EPA ID No. [illegible] Manifest Document No. 2 1 3 4 8
2. Page 1 of

Information in the shaded areas is not required by Federal law.

A. State Manifest Document Number 23321348

3. Generator's Name and Mailing Address [illegible]

B. State Generator's ID

4. Generator's Phone [illegible]

5. Transporter 1 Company Name Cross Trucking

6. US EPA ID Number [illegible]

C. State Transporter's ID [Reserved.]

D. Transporter's Phone [illegible] 823-1483

7. Transporter 2 Company Name Union Pacific Lines, 1416 Dodge Street Omaha, NE 68179

8. US EPA ID Number NED001792910

E. State Transporter's ID [Reserved.]

F. Transporter's Phone (402) 271-4400

9. Designated Facility Name and Site Address ECDC Environmental 1111 West Highway 123 East Carbon, UT 84520

10. US EPA ID Number UTD 9 3 0 1 2 2 0 1

G. State Facility's ID UTAH 94-12

H. Facility's Phone (800) 444-4451

11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste Number
a. Non RCRA Hazardous Waste Solid (Non DOT regulated)	001	CM	00022	T	State 611 EPA/Other Non-RCRA
b.					State EPA/Other
c.					State EPA/Other
d.					State EPA/Other

J. Additional Descriptions for Materials Listed Above
Soil from site clean-up @ 1455 - 5th St., Oakland, CA

K. Handling Codes for Wastes Listed Above
a. 03
b.
c.
d.

15. Special Handling Instructions and Additional Information
[illegible]

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Printed/Typed Name	Signature	Month	Day	Year
[illegible]	[illegible]	11	06	03

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
Craig [illegible]	[illegible]	11	06	03

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

FACILITY

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Printed/Typed Name	Signature	Month	Day	Year

DO NOT WRITE BELOW THIS LINE.

DTSC 8022A (1/99)
EPA 8700—22

Yellow: GENERATOR RETAINS

APPENDIX E

Analytical Reports and Chain of Custody Documents For Confirmation Soil Samples

McCampbell Analytical Inc.

110 2nd Avenue South, #D7, Pacheco, CA 94553-5560
Telephone : 925-798-1620 Fax : 925-798-1622
http://www.mccampbell.com E-mail: main@mccampbell.com

Aqua Science Engineers, Inc. 208 West El Pintado Road Danville, CA 94526	Client Project ID: #3788; Hall 1455 5th St. Oakland	Date Sampled: 11/06/03
		Date Received: 11/07/03
	Client Contact: Dave Allen	Date Reported: 11/10/03
	Client P.O.:	Date Completed: 11/10/03

WorkOrder: 0311081

November 10, 2003

Dear Dave:

Enclosed are:

1). the results of **8** analyzed samples from your **#3788; Hall 1455 5th St. Oakland project,**

2). a QC report for the above samples

3). a copy of the chain of custody, and

4). a bill for analytical services.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits. If you have any questions please contact me. McCampbell Analytical Laboratories strives for excellence in quality, service and cost. Thank you for your business and I look forward to working with you again.

Yours truly,

Angela Rydelius, Lab Manager

McCampbell Analytical Inc.
110 2nd Avenue South, #D7, Pacheco, CA 94553-5560
Telephone : 925-798-1620 Fax : 925-798-1622
http://www.mccampbell.com E-mail: main@mccampbell.com

Aqua Science Engineers, Inc. 208 West El Pintado Road Danville, CA 94526	Client Project ID: #3788; Hall 1455 5th St. Oakland	Date Sampled: 11/06/03
		Date Received: 11/07/03
	Client Contact: Dave Allen	Date Extracted: 11/07/03
	Client P.O.:	Date Analyzed: 11/08/03

Lead by ICP*

Extraction method: SW3050B | Analytical methods: 6010C | Work Order: 0311081

Lab ID	Client ID	Matrix	Extraction	Lead	DF	% SS
0311081-001A	XCON-A-18"	S	TTLC	ND	1	112
0311081-002A	XCON-B-48"	S	TTLC	ND	1	110
0311081-003A	XCON-C-18"	S	TTLC	85	1	112
0311081-004A	XCON-D-18"	S	TTLC	ND	1	114
0311081-005A	XCON-E-18"	S	TTLC	ND	1	108
0311081-006A	XCON-F-18"	S	TTLC	ND	1	109
0311081-007A	XCON-G-24"	S	TTLC	ND	1	107
0311081-008A	XCON-H-36"	S	TTLC	ND	1	109

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	TTLC	NA	mg/L
	S	TTLC	5.0	mg/Kg

*water/product/oil/non-aqueous liquid samples and all TCLP / STLC / DISTLC / SPLP extracts are reported in mg/L, soil/sludge/solid samples in mg/kg, wipe samples in µg/wipe, filter samples in µg/filter.

means surrogate recovery outside of acceptance range due to matrix interference; & means low or no surrogate due to matrix interference; ND means not detected above the reporting limit; N/A means not applicable to this sample or instrument.

Analytical Methods: EPA 6010C/200.7 for all elements except: 200.9 (water/liquid- Sb, As, Pb, Se, Tl); 245.1 (Hg); 7010 (sludge/soil/solid/oil/product/wipe/filter - As, Se, Tl); 7471B (Hg).

i) liquid sample that contains greater than ~2 vol. % sediment; this sediment is extracted with the liquid, in accordance with EPA methodologies and can significantly effect reported metal concentrations; j) reporting limit raised due to insufficient sample amount; k) results are reported by dry weight; y) estimated values due to low surrogate recovery; z) reporting limit raised due to matrix interference.

DHS Certification No. 1644

Angela Rydelius, Lab Manager

McCampbell Analytical Inc.
110 2nd Avenue South, #D7, Pacheco, CA 94553-5560
Telephone : 925-798-1620 Fax : 925-798-1622
http://www.mccampbell.com E-mail: main@mccampbell.com

QC SUMMARY REPORT FOR 6010C

Matrix: S WorkOrder: 0311081

EPA Method: 6010C	Extraction: SW3050B		BatchID: 9253			Spiked Sample ID: N/A				
	Sample	Spiked	MS*	MSD*	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)	
	mg/Kg	mg/Kg	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	Low	High
Lead	N/A	50	N/A	N/A	N/A	105	102	3.20	80	120
%SS:	N/A	100	N/A	N/A	N/A	106	104	1.62	80	120

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:

NONE

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS – MSD) / (MS + MSD) * 2.

* MS and / or MSD spike recoveries may not be near 100% or the RPDs near 0% if: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) if that specific sample matrix interferes with spike recovery.

N/A = not applicable to this method.
NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

McCampbell Analytical Inc.
110 2nd Avenue South, #D7, Pacheco, CA 94553-5560
Telephone : 925-798-1620 Fax : 925-798-1622
http://www.mccampbell.com E-mail: main@mccampbell.com

QC SUMMARY REPORT FOR 6010C

Matrix: S WorkOrder: 0311081

EPA Method: 6010C Extraction: SW3050B BatchID: 9273 Spiked Sample ID: N/A

	Sample	Spiked	MS*	MSD*	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)	
	mg/Kg	mg/Kg	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	Low	High
Lead	N/A	50	N/A	N/A	N/A	106	109	3.49	80	120
%SS:	N/A	100	N/A	N/A	N/A	106	108	2.15	80	120

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:

NONE

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS – MSD) / (MS + MSD) * 2.

* MS and / or MSD spike recoveries may not be near 100% or the RPDs near 0% if: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) if that specific sample matrix interferes with spike recovery.

N/A = not applicable to this method.
NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

McCampbell Analytical Inc.
110 Second Avenue South, #D7
Pacheco, CA 94553-5560
(925) 798-1620

CHAIN-OF-CUSTODY RECORD

WorkOrder: 0311081

Client:
Aqua Science Engineers, Inc.
208 West El Pintado Road
Danville, CA 94526

TEL: (925) 820-9391
FAX: (925) 837-4853
ProjectNo: #3788; Hall 1455 5th St. Oakland
PO:

Date Received: **11/7/03**
Date Printed: **11/7/03**

Sample ID	ClientSampID	Matrix	Collection Date	Hold	Requested Tests			
					PB_S			
0311081-001	XCON-A-18"	Soil	11/6/03	☐	A			
0311081-002	XCON-B-48"	Soil	11/6/03	☐	A			
0311081-003	XCON-C-18"	Soil	11/6/03	☐	A			
0311081-004	XCON-D-18"	Soil	11/6/03	☐	A			
0311081-005	XCON-E-18"	Soil	11/6/03	☐	A			
0311081-006	XCON-F-18"	Soil	11/6/03	☐	A			
0311081-007	XCON-G-24"	Soil	11/6/03	☐	A			
0311081-008	XCON-H-36"	Soil	11/6/03	☐	A			

Prepared by: Maria Venegas

Comments: 24hr Rush

NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.

0311081

RUSH!!

Aqua Science Engineers, Inc.
208 W. El Pintado Road
Danville, CA 94526
(925) 820-9391
FAX (925) 837-4853

Chain of Custody

PAGE 1 OF 1

SAMPLER (SIGNATURE) D. Allen (PHONE NO.)

PROJECT NAME HALL JOB NO. 3788

ADDRESS 1455 5th St. Oakland

ANALYSIS REQUEST

SPECIAL INSTRUCTIONS:

SAMPLE ID.	DATE	TIME	MATRIX	NO. OF SAMPLES	TPH-GAS / MTBE & BTEX (EPA 5030/8015-8020)	TPH-DIESEL (EPA 3510/8015)	TPH-DIESEL & MOTOR OIL (EPA 3510/8015)	PURGEABLE HALOCARBONS (EPA 601/8010)	VOLATILE ORGANICS (EPA 624/8240/8260)	SEMI-VOLATILE ORGANICS (EPA 625/8270)	OIL & GREASE (EPA 5520)	LUFT METALS (5) (EPA 6010+7000)	CAM 17 METALS (EPA 6010+7000)	PCBs & PESTICIDES (EPA 608/8080)	ORGANOPHOSPHORUS PESTICIDES (EPA 8140 EPA 608/8080)	FUEL OXYGENATES (EPA 8260)	Pb (TOTAL or DISSOLVED) (EPA 6010)	TPH-G/BTEX/5 OXY'S (EPA 8260)	TPH-G/BTEX/ 5 OXY'S / LEAD SCAVENGERS (EPA 8260)		COMPOSITE
XCON-A-18"	11/6		Soil	1													X				
XCON-B-48"																	X				
XCON-C-18'																	X				
XCON-D-18"																	X				
XCON-E-18"																	X				
XCON-F-18"																	X				
XCON-G-24"																	X				
XCON-H-36"																	X				

ICE/
GOOD CONDITION ✓
HEAD SPACE ABSENT
DECHLORINATED IN LAB
APPROPRIATE CONTAINERS ✓
PRESERVED IN LAB

VOAS	O&G	METALS	OTHER

PRESERVATION

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY LABORATORY:
(signature) D. Allen (time) 1210	(signature) (time) 1210	(signature) (time)	(signature) (time) 2:00pm
(printed name) DAVE ALLEN (date) 11/7/03	(printed name) GINA M (date) 11/7/03	(printed name) (date) 11/7/03	(printed name) Maria Venegas (date) 11/07
Company- ASE	Company- UCTRA	Company UCTRA	Company- McCampbell

COMMENTS:

TURN AROUND TIME
STANDARD (24Hr) 48Hr 72Hr
OTHER: