



011001 11/30/92

November 30, 1992

Alameda County Health Care Services Agency  
Attention: Ms. Susan L. Hugo  
80 Swan Way, Room 350  
Oakland CA 94621

Subject: Phase II Project Report  
Soil and Groundwater Assessment, No. 2571  
Oliver Rubber Company  
Emeryville, CA 94608

Dear Ms. Hugo:

Enclosed, please find one copy of the subject report prepared by ASE Environmental.

This report was reviewed by our Oliver staff and our Standard Products Corporate Environmental personnel. We concur with its content, and findings, and look forward to bringing this project to a successful conclusion.

Respectfully submitted,

OLIVER RUBBER COMPANY

THE STANDARD PRODUCTS COMPANY

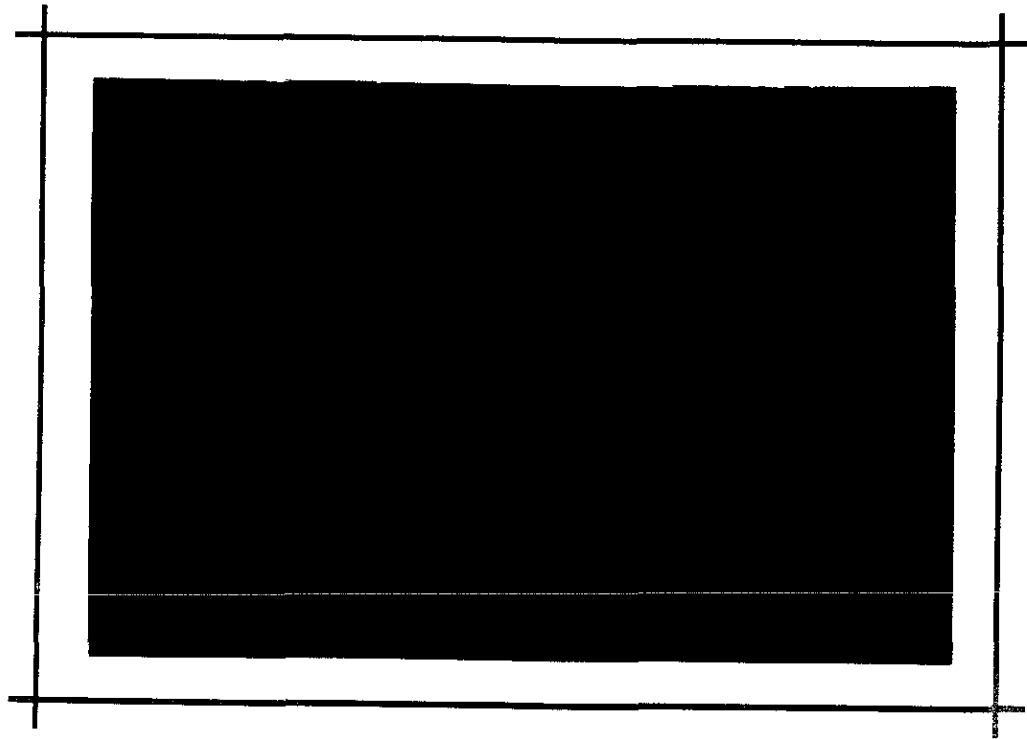
Ronald L. Kessler  
Division Manager

Tom O. Palmer  
Director Environmental/Health  
and Safety

c: Mr. Rich Hiett - Regional  
Water Quality Control Board  
David Allen - ASE



020711 0:53



**ENVIRONMENTAL SERVICES AND REMEDIATION  
CONTRACTING**

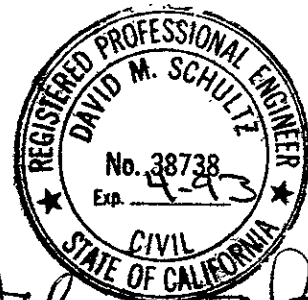


October 28, 1992

PROJECT REPORT  
for  
PHASE II SOIL AND GROUNDWATER  
ASSESSMENT, NO. 2571  
at  
The Oliver Rubber Company  
1200 65th Street  
Emeryville, California

Prepared for:  
Mr. Ron Kessler  
The Oliver Rubber Company  
1200 65th Street  
Emeryville, California

Prepared by:  
AQUA SCIENCE ENGINEERS, INC.  
2411 Old Crow Canyon Road, #4  
San Ramon, CA 94583  
(510) 820-9391



## EXECUTIVE SUMMARY

A limited groundwater and subsurface site investigation was conducted at The Oliver Rubber Company, 1200 65th Street, Emeryville, California as follow up to underground storage tank removals conducted in 1991 and 1992. The site assessment activities were initiated by the property owner in accordance with the Alameda County Health Care Services Agency (ACHCSA) requirements (see Appendix A for a copy of the "Direction Letter"). The purpose of this site assessment was to: (1) further define the limits of elevated concentrations of petroleum hydrocarbon and solvent contamination which was found in the soil upon excavation of the former underground storage tanks, and (2) to assess the potential for groundwater contamination caused by the leaking tanks or associated product lines. Prior to commencement of field activities, the work plan was approved by the ACHCSA, and well permits will be obtained from the Alameda County Flood Control and Water Conservation District, Zone 7 (see Appendix F for copies of the permit).

The project included the installation of three (3) groundwater monitoring wells and two (2) soil borings. Soil samples were to be collected at five foot intervals until saturated material was encountered. Groundwater samples were to be collected once well installation and well development activities were concluded. Both the soil and groundwater samples were tested at a State of California Certified Laboratory for all or a combination of the following constituents:

Total Petroleum Hydrocarbons as Diesel (TPH-d) (EPA 3550/8015)  
BTEX (EPA 8020)  
Volatile Organics (EPA 8240)  
Oil & Grease (EPA 5520)  
Purgeable Halocarbons (EPA 8010)  
Acid/Base Extractables (EPA 8270)

The above-referenced analytical tests resulted in Non Detectable (N.D.) levels of constituents in the groundwater samples submitted. Soil samples submitted for analytical testing for the above-referenced constituents resulted primarily in N.D. levels of contamination. It is the opinion of ASE that the tank-removal, and overexcavation activities performed in early 1991 and mid 1992 sufficiently removed the contamination that could have possibly posed a significant threat to the groundwater on site. Groundwater sampling activities performed on October 1, 1992 resulted in N.D. levels of all constituents of which were tested.

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## 1.0 INTRODUCTION

The following is a report on the further soil investigation and initial groundwater assessment conducted at The Oliver Rubber Company, 1200 65th Street, Emeryville, CA on October 1, 1992. The investigation/assessment was conducted on behalf of representatives of Oliver Rubber, the current property owner, per the written request of the Alameda County Health Care Services Agency (see the "Direction Letter" attached in Appendix A). This report is intended as a supplement to the "Tank Pull" reports by Aqua Science Engineers, Inc. (ASE) dated December 5, 1991 and July 16, 1992. The December 5, 1991 report details the removal of 2 - 8,000 gallon, underground, steel, non-halogenated organic solvent tanks; the July 16, 1992 report details the removal of 1 - 1,000 gallon, underground, steel "Bunker Oil" tank. The purpose of the investigation detailed in this report was to define the direction and gradient of groundwater flow, and to investigate the possible existence and extent of soil and/or groundwater contamination resulting from the leakage of the underground storage tanks.

## 2.0 SITE BACKGROUND

### 2.1 Physical Location

The site is located at the corner of 65th Street at Hollis Street. The site is approximately 1/16 mile west of Interstate 80, and 1/16 mile south of Highway 13, within the City limits of Emeryville, California. The site is currently used as a manufacturing setting for rubber products. The topography of the immediate area is generally even and located at approximately 20 feet above mean sea level. (see Figure 1: Site Location Map).

### 2.2 Background and Site History

Between December 5, 1991 and July 16, 1992, (3) underground storage tanks were removed from the property by ASE; two of the tanks had 8,000 gallon capacities and contained non-halogenated solvents; one of the tanks had a 1,000 gallon capacity, and contained bunker oil. Underground tank removal activities were documented by ASE in a reports referenced in the previous sections.

### 2.3 General Geology/Hydrogeology

The site rests on unconsolidated sediments primarily composed of clay. The eastern shoreline of the San Francisco Bay is located approximately 1/16 mile west of the site. Shallow groundwater in the area is located approximately 8-10 feet below grade at the site, and is assumed to flow in a westerly direction towards the San Francisco Bay.

### 2.4 Review of Preliminary Soil Assessment, Baseline, March 1990

Details of the "Tank Pull" reports which include tank removals, disposals, and soil and water sampling and analysis, can be found in ASE reports dated December 5, 1991 and July 16, 1992. Detectable levels of Total Petroleum Hydrocarbons (TPH) as Diesel, Oil and Grease, and several constituents of Volatile Organics were found in the sidewalls of both excavations upon backfilling activities. It was determined that groundwater monitoring wells would be necessary to investigate the possibility of groundwater contamination due to leaking tanks.

### 3.0 SCOPE OF WORK

What follows is the report covering the methods and findings regarding the initial groundwater assessment and additional soil investigation as outlined in the September 10, 1992 workplan.

The scope of work performed for the initial groundwater investigation and further limited soil assessment, included the following tasks:

- Installation of three 25 foot depth groundwater monitoring wells and two soil borings.
- Collection of soil samples at five foot intervals during drilling of the wells and within the capillary fringe.
- Surveying of the monitoring wells.
- Collection of groundwater depth measurements from the wells to determine the direction of groundwater flow and gradient at the site.
- Collection of groundwater samples from the wells.



- Chemical analysis of soil and groundwater samples included testing for all or combinations of the following EPA methods tests: TPH as Diesel and the fractions BTEX (3510/8015, 8020), Volatile Organics (8240), Oil and Grease (5520) Purgeable Halocarbons (8010), and Acid/Base Extractables (8270).

#### **4.0 DRILLING AND GROUNDWATER WELL CONSTRUCTION**

A total of three wells were installed at the site on October 1, 1992. The locations of the ground water monitoring wells (MW-1, MW-2, and MW-3) are indicated in Figure 2, Site Plan. The soil borings for well installation were drilled to 25 feet below ground surface using a CME-75 drill rig equipped with 8 inch O.D. continuous flight, hollow stem augers. All drilling equipment was steam cleaned before use and between borings. Water saturated soil was first encountered at approximately 15-17 feet in each of the monitoring well borings.

Two-inch diameter schedule-40 PVC well casing with 0.020-inch slots was installed from 25 feet to 5 feet below the surface in each boring. Two-inch diameter schedule-40 PVC blank casing was installed above the slotted casing, to the surface. The well casings were capped, on the bottom with a two-inch threaded female plug and on top with a two inch locking security plug. The annular space of the wells was packed with No. 3 Monterey sand from the bottom of the borings to 4.5 feet below the surface. 2.0 feet of bentonite clay was placed above the sand packs. Class "H" Portland Cement was placed above the bentonite seals, to the surface. The well heads were secured with concrete vaulted, water-tight, locking, steel, street boxes. Monitoring Well Logs details are provided in Appendix D.

The ground water wells were developed on October 2, 1992, using a 2-inch PVC bailer. The wells were initially surged to correct any sand pack bridging which may have occurred, and to remove any "fines" from the sand pack. Approximately 50 gallons of water was bailed from each well and placed in 55-gallon 17H steel drums for temporary on-site storage.

## 5.0 SOIL SAMPLE COLLECTION AND CHEMICAL ANALYSIS

Soil samples were collected in groundwater monitoring well MW-1, at 5, 10, and 15 foot depths. MW-2 and MW-3 soil borings were collected at 5, 10, and 15 foot depths. Soil Borings SB-1 and SB-2 (see Figure 2, Site Plan) had soil samples collected at 10 feet only. The samples were collected using a two-inch I.D. California split-spoon sampler holding three pre-cleaned two-inch O.D. by six-inch length sample tubes. The tube nearest the shoe from each sample interval was secured with double thickness aluminum foil, plastic end caps, and tape then immediately placed in an ice chest containing "blue" ice for cold storage. The next sample tube nearest the shoe was emptied into a zip-loc plastic storage bag and placed in sunlight, to enhance the volatilization of organic carbon from the soil matrix. After approximately 1/2 hour, the sample was screened in the field with a "Gastechtor Super Surveyor", model No. 1314. The Gastechtor is equipped with a combustible gas sensor calibrated with hexane.

The soil samples were submitted to Priority Environmental Labs located in Milpitas, California for definitive chemical analysis. Soil samples from MW-1, SB-1, and SB-2 were analyzed for TPH as diesel, BTEX, Oil & Grease, Purgeable Halocarbons, and Acid/Base Extractables, by EPA methods 3550/8015, 8020; 5520 D&F; 8010; and 8270 respectively, (the 15 foot MW-1 sample was the only soil sampled submitted for analysis by 8270). MW-2 and MW-3 soil samples were analyzed for Volatile Organics, Purgeable Halocarbons, and BTEX by EPA methods 8240, 8010, and 8020 respectively. Priority Environmental Laboratory is CSDHS certified for the chemical analyses performed for this investigation. The chemical analyses provided by Priority Environmental Laboratory regarding soil samples are provided below as tables 1 & 2. Copies of the Soil laboratory analytical reports and sample chain-of-custody documents are provided in Appendix B.

**TABLE 1**  
**Summary of Chemical Analysis of SOIL Samples**  
**TPH Diesel, BTEX, and Oil & Grease**  
**EPA Methods 3550/8015, 8020, and 5520 D&F**

Sample I.D.	TPH Diesel (ppm)	Benzene (ppb)	Toluene (ppb)	Ethyl Benzene (ppb)	Total Xylenes (ppb)	Oil & Grease (ppm)
MW-1-10'	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
MW-2-10'	---	N.D.	N.D.	N.D.	N.D.	---
MW-2-15'	---	N.D.	N.D.	N.D.	N.D.	---
MW-3-5'	---	N.D.	N.D.	N.D.	N.D.	---
MW-3-15'	---	N.D.	N.D.	N.D.	N.D.	---
SB-1-10'	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
SB-2-10'	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
EPA METHOD	3550/ 8015	8020	8020	8020	8020	5520 D&F

ND Non Detectable at analytical method limits  
 ppm parts per million  
 ppb parts per billion  
 --- not analyzed

**TABLE 2**  
**Summary of Chemical Analysis of SOIL Samples**  
**Purgeable Halocarbons, and Volatile Organics**  
**EPA Methods 8010, and 8240**

CONSTITUENT	MW-2-5' (ppb)	MW-2-15' (ppb)
TRICHLOROFLOROMETHANE	13	---
1,1-DICHLOROETHENE	---	2.9
CHLOROFORM	---	11
EPA METHOD	8240	8010

ppb parts per billion  
 --- not analyzed

\*All other constituents tested for as part of these methods were found to be N.D.  
 See Appendix B for copies of sample results.

## **6.0 GROUND WATER SAMPLE COLLECTION AND CHEMICAL ANALYSIS**

Ground water measurements and identification of any "free-product" were collected before any water was purged from the wells. No free product was identified and no odor could be recognized from any of the wells. One ground water sample was collected from each of the three groundwater monitoring wells on October 5, 1992, after removal of approximately five well volumes of water and 90% well recharge. The well was purged using a 2-inch PVC bailer. The well purge water was placed in 55-gallon steel 17H drums and stored on site pending analytical results. The samples were collected using disposable, sterile, polyethylene, single check valve bailers. The samples were placed in pre-cleaned, sterile, 40 ml. glass VOA vials, then immediately placed in an ice chest for cold storage. They were later transported to Priority Environmental Laboratory in Milpitas, California using proper Chain-of-Custody procedures, for chemical analysis. The Groundwater analytical results and chain-of-custody records are included in Appendix C. Well Sampling Field Logs are attached in Appendix E.

The groundwater samples collected for this project were analyzed for TPH as diesel, BTEX, Oil & Grease, Volatile Organics, and Acid/Base Extractables, by EPA methods 3550/8015, 8020; 5520 D&F; 8240; and 8270 respectively, (the MW-1 sample was the only water sample submitted for analysis by 8270). The results are tabulated below in tables 3, 4 & 5; Groundwater laboratory analytical results and chain-of-custody records are attached in Appendix C.

**TABLE 3**  
**Summary of Chemical Analysis of WATER Samples**  
**TPH as Diesel, BTEX, and Oil & Grease**  
**EPA Methods 3510/8015, 602, and 5520 C&F**

Sample I.D.	TPH Diesel (ppb)	Benzene (ppb)	Toluene (ppb)	Ethyl Benzene (ppb)	Total Xylenes (ppb)	Oil & Grease (ppm)
MW-1	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
MW-2	---	---	---	---	---	---
MW-3	---	---	---	---	---	---
EPA METHOD	3510/8015	602	602	602	602	5520 C&F

N.D. Non Detectable at analytical method limits  
 ppm parts per million  
 ppb parts per billion  
 --- not analyzed

**TABLE 4**  
**Summary of Chemical Analysis of Water Samples**  
**Volatile Organics and Acid/Base Extractables**  
**EPA Methods 8240 and 8270**

Sample I.D.	All Volatile Organics	All Acid/Base Extractables
MW-1	---	N.D.
MW-2	N.D.	---
MW-3	N.D.	---

N.D. Non Detectable at analytical method limits  
 --- not analyzed

**TABLE 5**  
**Summary of Chemical Analysis of Water Samples**  
**pH and Conductivity**  
**EPA Methods 9045 and 120.1**

Sample I.D.	pH	Conductivity
MW-1	6.8	930
MW-2	7.0	1100
MW-3	6.7	670
EPA Method	9045	120.1

## 7.0 GEOLOGY AND GROUNDWATER GRADIENT

The native soil types encountered while drilling were primarily composed of blue-green organic clay (CL) from approximately 1 ft. to 10 feet, from 10 to the bottom of hole depth (25 feet), brown/blue-green, silty clay was observed. Water saturated soil was first encountered during drilling at approximately 15-17 feet in the monitoring well borings. A graphical description of the soil types are provided on the well construction logs (see Appendix D).

The elevations of the tops of the well casings were surveyed relative to mean sea level (MSL) on October 1, 1992. The depths to groundwater were measured in each well on the day of the survey using a water level sounder (Solinst). Two measurements were taken in each well to confirm groundwater depth. The depth to water and the top of casing survey data were used to calculate a groundwater flow direction and gradient. A summary of the elevation data is provided below.

**TABLE 6**  
Summary of Groundwater Well Survey Data

Well Number	Depth to Water	Top of Casing Elevation	Groundwater Elevation
MW-1	8.08 ft.	20.0 ft. AMSL	11.92 ft. AMSL
MW-2	7.45 ft.	19.21 ft. AMSL	11.76 ft. AMSL
MW-3	7.44 ft.	19.80 ft. AMSL	12.36 ft. AMSL

A three-point problem was solved for well combinations MW-1, MW-2 and MW-3. A graphic representation of the three-point problem indicating groundwater flow direction and gradient is presented in the Groundwater Gradient Map, Figure 3. The current direction of groundwater flow is west across the site at a gradient of 0.02 ft/ft.

## **8.0 CONCLUSIONS**

Based on the results of the chemical analyses, and supplemental investigative work, it is the opinion of Aqua Science Engineers, Inc. that the tank excavations and the over-excavations of contaminated soils previously conducted at the subject site during late 1991 and mid 1992 by ASE adequately removed contamination which may have posed a potential threat to groundwater at the site. Furthermore, any impact that the soil contamination may have had on groundwater appears to be insignificant at this time (groundwater samples, MW-1, MW-2, and MW-3 resulted in N.D. levels of TPH as Diesel and the fractions BTEX, Oil & Grease, Volatile Organics, and Acid/Base Extractables).

The chemical analysis of soil samples from the three monitoring wells and from the two soil borings resulted primarily in non-detectable (N.D.) levels of contamination. Only in MW-2 soil samples was any contamination detected; furthermore, the concentrations of the constituents that did appear (Trichlorofluoromethane, 1,1-Dichloroethene, and Chloroform) only resulted in trace levels of contamination, 0.013 ppm being the largest.

## **9.0 RECOMMENDATIONS**

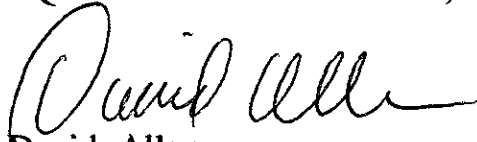
Aqua Science Engineers recommends the depth to groundwater in the wells be measured and groundwater samples be collected on a quarterly basis for a period of 1 year to confirm the findings of this investigation. The groundwater samples should be analyzed for TPH as Diesel, and the fractions BTEX using EPA Method 5030/8015, 602 in MW-1; for Volatile Organics using EPA Method 8240/624 in MW-2 and MW-3. The laboratory chosen to perform the analyses must be CSDHS certified for both of these methods. A report of quarterly findings should be produced for review by the Regional Water Quality Control Board, San Francisco Bay Region, and The Alameda County Health Care Services Agency.

## 10.0 REPORT LIMITATIONS

The results of this investigation represent conditions at the time and specific location at which soil and groundwater samples were collected, and for the specific parameters analyzed for by the laboratory. It does not fully characterize the site for contamination resulting from sources other than the underground storage tanks at the site, or for parameters not analyzed for by the laboratory. All of the laboratory work cited in this report was prepared under the direction of independent CSDHS certified laboratory. The independent laboratory is solely responsible for the contents and conclusions of the chemical analysis data.

Respectfully submitted,

AQUA SCIENCE ENGINEERS, INC.

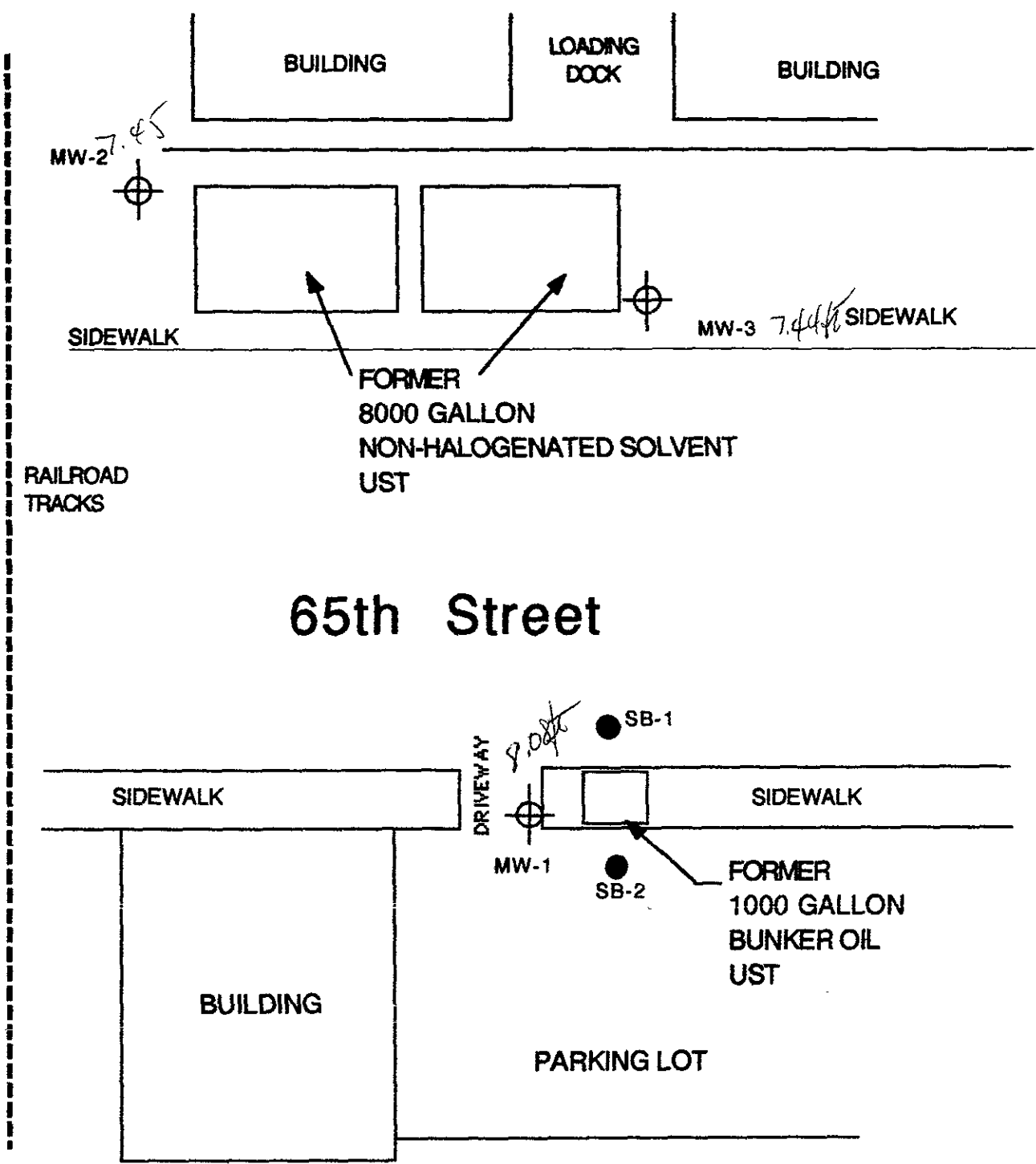


David Allen  
Project Manager





<b>SITE LOCATION MAP</b>	
Oliver Rubber 1200 65th Street Emeryville, California	
Aqua Science Engineers	Figure 1



**LEGEND**

● SB-1 Soil Boring

⊕ MW-1 Monitoring Well

↑ N

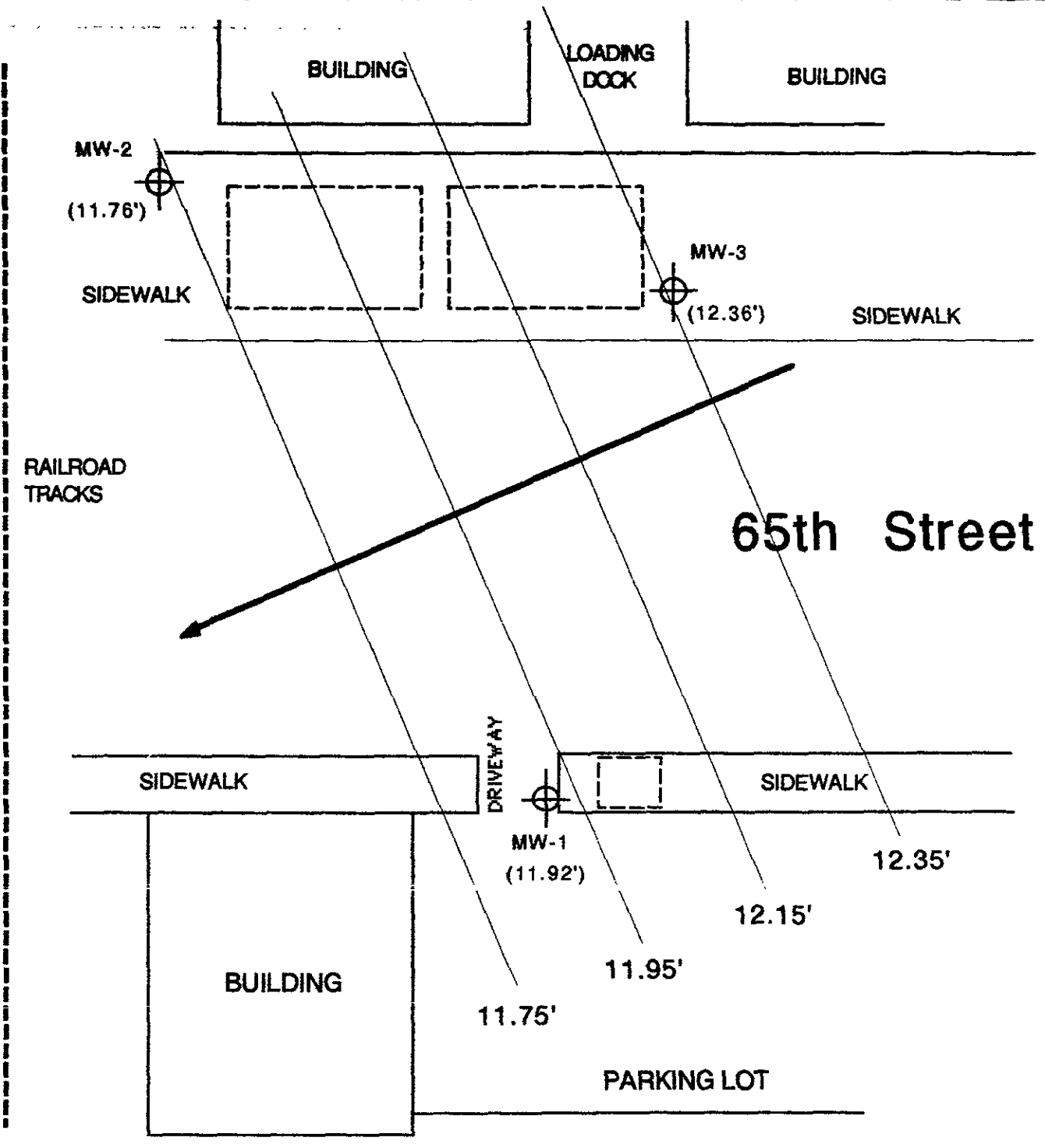
0 ft. 20 ft.

**SCALE**

**SITE PLAN**

Oliver Rubber  
1200 65th Street  
Emeryville, California

Aqua Science Engineers | Figure 2



**LEGEND**

MW-1  
 Monitoring Well with groundwater depth in feet above mean sea level  
 (11.92')

Groundwater Gradient direction

0 ft. 20 ft.  
**SCALE**

**GROUNDWATER GRADIENT  
 MAP (10/1/92)**

Oliver Rubber  
 1200 65th Street  
 Emeryville, California

Aqua Science Engineers | Figure 3



**APPENDIX A**

Alameda County Health Care Services Agency  
"Direction Letter"

ALAMEDA COUNTY  
HEALTH CARE SERVICES  
AGENCY



DAVID J. KEARS, Agency Director

RAFAT A. SHAHID, ASST. AGENCY DIRECTOR

September 24, 1992  
STID# 1330

DEPARTMENT OF ENVIRONMENTAL HEALTH  
State Water Resources Control Board  
Division of Clean Water Programs  
UST Local Oversight Program  
80 Swan Way, Rm 200  
Oakland, CA 94621  
(510) 271-4530

Mr. Ron Kessler  
Oliver Rubber Company  
1200 65th Street  
Emeryville, California 94608

RECEIVED

SEP 24 1992

RE: Oliver Rubber Company  
1200 65th Street, Emeryville, California 94608

AQUA SCIENCE ENG.

Dear Mr. Kessler:

The Alameda County Department of Environmental Health, Hazardous Materials Division has recently reviewed the files concerning the removal of three underground storage tanks at the referenced site. This office is also in receipt and has completed its review of the "Workplan for Groundwater Contamination Assessment" dated September 10, 1992 submitted by Aqua Science Engineers Inc.

Based on this review, this department concurs with the basic elements of the workplan. However, the following issues must be addressed before the workplan can be implemented:

- \* Soil sample (SW-W) collected after limited overexcavation in June 25, 1992 on the west wall of the former bunker oil underground storage tank excavation still showed considerable levels of contamination. Total petroleum hydrocarbon as diesel (130 ppm), oil & grease (450 ppm), benzene (19 ppb), toluene (6.7 ppb), xylene (33 ppb) were detected. The lateral extent of soil contamination in the area west of the former bunker oil tank excavation must be determined.
- \* Stockpiled soil from the former bunker oil tank contained significant levels of semi-volatile organics, specifically 2-Methylnaphthalene (0.38 ppm). Analysis of the soil and groundwater samples collected in the area of the former bunker oil tank must include Method 8270 for Semi-Volatile Organics in addition to Total Petroleum Hydrocarbon as diesel (TPH-d), oil & grease (O & G), and benzene, toluene, ethyl benzene, xylene (BTEX).
- \* Please explain how the protocol for one soil sample per hole will be selected for laboratory testing. Soil samples must be collected every five feet as per RWQCB's guidelines. Field instruments are acceptable as a screening tools only. Any evidence of soil contamination such as odor, visual staining or field instrument readings must be verified by analysis from a state certified laboratory.

Mr. Ron Kessler  
RE: 1200 65th Street, Emeryville 94608  
September 24, 1992  
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- \* Groundwater elevation readings must be performed every month for twelve consecutive months and reduced to every quarter after the first year. Groundwater monitoring wells must be sampled on a quarterly basis and analyzed for target compounds. MW-1 must be analyzed for TPH-d, BTXE, semivolatile organics (8270), oil & grease. MW-2 and MW-3 must be sampled for TPH-g, BTXE and volatile organic compounds (8240). After four quarters of non detectable levels have been achieved, the frequency of sampling events will be evaluated and/or a recommendation for signoff/case closure by RWQCB will be determined.
- \* Please submit a time schedule for all phases of the investigation and remediation activities and the anticipated time when cleanup will be completed at the site.

A report must be submitted within 30 days after completion of this investigation. Until cleanup is complete, you will need to submit reports to this office and to RWQCB every three months (or at a more frequent interval, if specified at any time by either agency). In addition, the following items must be incorporated in your future reports or workplans:

- a cover letter from the responsible party or tank owner stating the accuracy of the report and whether he/she concurs with the conclusions and recommendations in the report or workplan
- site map delineating contamination contours for soil and groundwater based on recent data should be included and the status of the investigation and cleanup must be identified
- proposed continuing or next phase of investigation / cleanup activities must be included to inform this department or the RWQCB of the responsible party or tank owner's intention
- any changes in the groundwater flow direction and gradient based on the measured data since the last sampling event must be explained
- historical records of groundwater level in each well must be tabulated to indicate the fluctuation in water levels
- tabulate analytical results from all previous sampling events; provide laboratory reports (including quality control/quality assurance) and chain of custody documentation

Mr. Ron Kessler  
RE: 1200 65th Street, Emeryville 94608  
September 24, 1992  
Page 3 of 3

All reports and proposals must be submitted under seal of a California Registered Geologist or Registered Civil Engineer with a statement of qualifications for each lead professionals involved with the project. Copies of reports must also be submitted to :

Rich Hiett  
RWQCB, San Francisco Bay Region  
2101 Webster Street, Fourth Floor  
Oakland, California 94612

Because we are overseeing this site under the designated authority of the Regional Water Quality Control Board, this letter constitutes a formal requests for technical reports pursuant to California Water Code Section 13267 (b). Any extensions of stated deadlines or changes in the workplan must be confirmed in writing and approved by this agency or RWQCB.

Please contact me at (510) 271-4530 if you have any questions concerning this letter.

Sincerely,

  
Susan L. Hugo  
Senior Hazardous Materials Specialist

cc: Rafat A. Shahid, Asst. Agency Director, Environmental Health  
Rich Hiett, San Francisco Bay RWQCB  
Mark Thomson, Alameda County District Attorney's Office  
Edgar B. Howell, Chief, Hazardous Materials Division - files  
~~David Allen~~ - Aqua Science Engineers, Inc.  
2411 Old Crow Canyon Road, # 4  
San Ramon, California 94583

**APPENDIX B**

California EPA Certified Laboratory  
Report of Soil Samples  
and  
Chain of Custody Record





# PRIORITY ENVIRONMENTAL LABS

Priority Environmental Analytical Laboratory

October 08, 1992

PEL # 9210011

AQUA SCIENCE ENGINEERS, INC.

Attn: David Allen

Re: Seven soil samples for BTEX, Diesel, and Oil & Grease analyses.

Project name: Oliver Rubber

Project location: 1200 65th St. -Emeryville, CA.

Project number: 2571

Date sampled: Oct 01, 1992

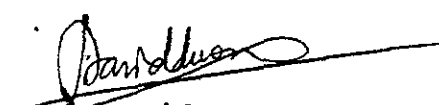
Date submitted: Oct 06, 1992

Date extracted: Oct 06-08, 1992

Date analyzed: Oct 06-08, 1992

## RESULTS:

SAMPLE I.D.	Dieselk (mg/Kg)	Benzene (ug/Kg)	Toluene (ug/Kg)	Ethyl Benzene (ug/Kg)	Total Xylenes (ug/Kg)	Oil & Grease (mg/Kg)
SB 1-10'	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
SB 2-10'	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
MW 1-10'	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
MW 2-10'	---	N.D.	N.D.	N.D.	N.D.	---
MW 2-15'	---	N.D.	N.D.	N.D.	N.D.	---
MW 3-5'	---	N.D.	N.D.	N.D.	N.D.	---
MW 3-15'	---	N.D.	N.D.	N.D.	N.D.	---
Blank	N.D.	N.D.	N.D.	N.D.	N.D.	
Spiked Recovery	93.4%	97.6%	102.4%	98.2%	103.5%	---
Duplicate Spiked Recovery	88.2%	86.0%	80.3%	89.0%	93.5%	---
Detection limit	1.0	5.0	5.0	5.0	5.0	10
Method of Analysis	3550 / 8015	8020	8020	8020	8020	5520 D & F

  
 David Duong  
 Laboratory Director

CERTIFICATE OF ANALYSIS

STATE LICENSE NO. 1150

Received: 10/07/92  
Reported: 10/13/92  
Job #: 73991

Attn: David Duong  
Priority Environmental Labs  
1764 Houret Court  
Milpitas, CA 95035

Project: #9210011  
Matrix: Soil

ACID & BASE/NEUTRAL EXTRACTABLES  
EPA Method 8270 (Low Level)  
mg/Kg

Lab I.D.: 73991-2  
Client I.D.: MW1-15'

<u>ACID COMPOUNDS</u>	<u>CONCENTRATION</u>	<u>LIMIT OF DETECTION</u>
Phenol	ND<0.08	0.08
2-chlorophenol	ND<0.06	0.06
2-methyl phenol	ND<0.09	0.09
4-methyl phenol	ND<0.10	0.10
2-nitrophenol	ND<0.06	0.06
2,4-dimethylphenol	ND<0.10	0.10
2,4-dichlorophenol	ND<0.10	0.10
4-chloro-3-methylphenol	ND<0.10	0.10
2,4,5-trichlorophenol	ND<0.07	0.07
2,4,6-trichlorophenol	ND<0.08	0.08
2,4-dinitrophenol	ND<0.40	0.40
4-nitrophenol	ND<0.10	0.10
2-methyl-4,6-dinitrophenol	ND<0.10	0.10
Pentachlorophenol	ND<0.30	0.30

BASE/NEUTRAL COMPOUNDS

N-nitrosodimethylamine	ND<0.10	0.10
Bis(2-chloroethyl) ether	ND<0.04	0.04
1,3-dichlorobenzene	ND<0.50	0.50
1,4-dichlorobenzene	ND<0.50	0.50
1,2-dichlorobenzene	ND<0.40	0.40
Bis-(2-chloroisopropyl) ether	ND<0.20	0.20

ND = Not Detected

*Suminder Sidh (For)*

Jaime Chow  
Laboratory Director

Precision Analytical Laboratory, Inc.

4136 LAKESIDE DRIVE RICHMOND, CA 94806

PHONE (510) 222-3000

FAX (510) 222-1251

CERTIFICATE OF ANALYSIS

STATE LICENSE NO. 1150

Received: 10/07/92

Reported: 10/13/92

Job #: 73991

Attn: David Duong  
Priority Environmental Labs

Project: #9210011  
Matrix: Soil

ACID & BASE/NEUTRAL EXTRACTABLES  
EPA Method 8270 - Low Level  
mg/Kg

Lab I.D.: 73991-2  
Client I.D.: MW1-15'

<u>BASE/NEUTRAL COMPOUNDS</u>	<u>CONCENTRATION</u>	<u>LIMIT OF DETECTION</u>
N-nitrosodi-n-propylamine	ND<0.10	0.10
Hexachloroethane	ND<0.50	0.50
Nitrobenzene	ND<0.06	0.06
Isophorone	ND<0.09	0.09
Bis-(2-chloroethoxy)methane	ND<0.10	0.10
1,2,4-trichlorobenzene	ND<0.30	0.30
Napthalene	ND<0.20	0.20
Hexachlorobutadiene	ND<0.50	0.50
2-chloronaphthalene	ND<0.05	0.05
2-methyl naphthalene	ND<0.20	0.20
4-chloroaniline	ND<0.10	0.10
2-nitroaniline	ND<0.10	0.10
3-nitroaniline	ND<0.10	0.10
4-nitroaniline	ND<0.10	0.10
Hexachlorocyclopentadiene	ND<0.20	0.20
Dimethyl phthalate	ND<0.04	0.04
Acenaphthylene	ND<0.04	0.04
Acenaphthene	ND<0.04	0.04
2,4-dinitrotoluene	ND<0.10	0.10
2,6-dinitrotoluene	ND<0.06	0.06
Diethyl phthalate	ND<0.10	0.10
4-chlorophenylphenylether	ND<0.05	0.05
Fluorene	ND<0.20	0.20
N-nitrosodiphenylamine	ND<0.09	0.09
4-bromophenylphenylether	ND<0.07	0.07

Precision Analytical Laboratory, Inc.

1130 LAKESIDE DRIVE RICHMOND, CA 94806 (415) 731-1234 FAX (415) 731-1235

**CERTIFICATE OF ANALYSIS**

STATE LICENSE NO. 1150

Received: 10/07/92  
Reported: 10/13/92  
Job #: 73991

Attn: David Duong  
Priority Environmental Labs

Project: #9210011  
Matrix: Soil

**ACID & BASE/NEUTRAL EXTRACTABLES**  
EPA Method 8270 - Low Level  
mg/Kg

Lab I.D.: 73991-2  
Client I.D.: MW1-15'

<u>BASE/NEUTRAL COMPOUNDS</u>	<u>CONCENTRATION</u>	<u>LIMIT OF DETECTION</u>
Hexachlorobenzene	ND<0.20	0.20
Phenanthrene	ND<0.10	0.10
Anthracene	ND<0.20	0.20
Di-n-butylphthalate	ND<0.20	0.20
Fluoranthene	ND<0.50	0.50
Benzidine	ND<1	1
Pyrene	ND<0.60	0.60
Benzylbutylphthalate	ND<0.10	0.10
3,3'-dichlorobenzidine	ND<0.30	0.30
Benzo(a)anthracene	ND<0.30	0.30
Bis-(2-ethylhexyl)phthalate	ND<0.30	0.30
Chrysene	ND<0.30	0.30
Di-n-octylphthalate	ND<0.13	0.13
Benzo(b)fluoranthene	ND<0.20	0.20
Benzo(k)fluoranthene	ND<0.40	0.40
Benzo(a)pyrene	ND<0.09	0.09
Indeno(1,2,3-cd)pyrene	ND<0.20	0.20
Dibenzo(a,h)anthracene	ND<0.20	0.20
Benzo(ghi)perylene	ND<0.20	0.20

ND = Not detected



# PRIORITY ENVIRONMENTAL LABS

Environmental Analytical Laboratory

October 09, 1992

PEL # 9210011

AQUA SCIENCE ENGINEERS, INC.  
Project Name: Oliver Rubber

Attn: David Allen  
Project Number: 2571  
Project location: 1200 65th St.-Emeryville, CA


Sample I.D.: MW 2-5'  
Date Sampled: Oct 05, 1992  
Date Analyzed: Oct 09, 1992

Date Submitted: Oct 06, 1992

Method of Analysis: EPA 8240

Detection limit: 5.0 ug/Kg

COMPOUND NAME	CONCENTRATION ( ug/Kg )	SPIKE RECOVERY (%)
Chloromethane	N.D.	-----
Vinyl Chloride	N.D.	-----
Bromomethane	N.D.	-----
Chloroethane	N.D.	83.1
Trichlorofluoromethane	13	-----
1,1-Dichloroethene	N.D.	-----
Methylene Chloride	N.D.	-----
Trans-1,2-Dichloroethene	N.D.	-----
1,1-Dichloroethane	N.D.	-----
Chloroform	N.D.	85.8
1,1,1-Trichloroethane	N.D.	-----
Carbon Tetrachloride	N.D.	80.6
1,2-Dichloroethane	N.D.	-----
Trichloroethene	N.D.	86.3
1,2-Dichloropropane	N.D.	-----
Bromodichloromethane	N.D.	92.4
2-Chloroethylvinylether	N.D.	-----
Trans-1,3-Dichloropropene	N.D.	-----
Cis-1,3-Dichloropropene	N.D.	-----
1,1,2-Trichloroethane	N.D.	-----
Tetrachloroethene	N.D.	87.8
Benzene	N.D.	92.5
Dibromochloromethane	N.D.	-----
Toluene	N.D.	95.3
Chlorobenzene	N.D.	91.8
Ethylbenzene	N.D.	-----
Bromoform	N.D.	-----
1,1,2,2-Tetrachloroethane	N.D.	-----
Dichlorodifluoromethane	N.D.	-----
Freon 113	N.D.	102.9
M & P-Xylenes	N.D.	-----
O-Xylene	N.D.	-----
1,3-Dichlorobenzene	N.D.	-----
1,4-Dichlorobenzene	N.D.	-----
1,2-Dichlorobenzene	N.D.	-----

  
David Duong  
Laboratory Director



# PRIORITY ENVIRONMENTAL LABS

Environmental Analytical Laboratory

October 08, 1992

PEL # 9210011

AQUA SCIENCE ENGINEERS, INC.  
Project name: Oliver Rubber

Attn: David Allen  
Project location: 1200 65th St.-Emeryville, CA  
Project number: 2571

Sample I.D.: MW 2-15'


Date Sampled: Oct 01, 1992  
Date Analyzed: Oct 06-07, 1992

Date Submitted: Oct 06, 1992

Method of Analysis: EPA 8010

Detection limit: 1.0 ug/Kg

COMPOUND NAME	CONCENTRATION ( ug/Kg )	SPIKE RECOVERY (%)
Chloromethane	N.D.	-----
Vinyl Chloride	N.D.	89.1
Bromomethane	N.D.	-----
Chloroethane	N.D.	-----
Trichlorofluoromethane	N.D.	-----
1,1-Dichloroethene	2.9	-----
Methylene Chloride	N.D.	82.6
1,2-Dichloroethene (TOTAL)	N.D.	-----
1,1-Dichloroethane	N.D.	-----
Chloroform	11	90.4
1,1,1-Trichloroethane	N.D.	-----
Carbon Tetrachloride	N.D.	-----
1,2-Dichloroethane	N.D.	-----
Trichloroethene	N.D.	97.2
1,2-Dichloropropane	N.D.	-----
Bromodichloromethane	N.D.	-----
2-Chloroethylvinylether	N.D.	-----
Trans-1,3-Dichloropropene	N.D.	-----
Cis-1,3-Dichloropropene	N.D.	-----
1,1,2-Trichloroethane	N.D.	-----
Tetrachloroethene	N.D.	94.0
Dibromochloromethane	N.D.	-----
Chlorobenzene	N.D.	-----
Bromoform	N.D.	-----
1,1,2,2-Tetrachloroethane	N.D.	-----
1,3-Dichlorobenzene	N.D.	-----
1,4-Dichlorobenzene	N.D.	-----
1,2-Dichlorobenzene	N.D.	-----

  
David Duong  
Laboratory Director



# PRIORITY ENVIRONMENTAL LABS

Environmental Engineering & Analytical Laboratory

October 09, 1992

PEL # 9210011

AQUA SCIENCE ENGINEERS, INC.  
Project Name: Oliver Rubber

Attn: David Allen  
Project Number: 2571  
Project location: 1200 65th St.-Emeryville, CA

Sample I.D.: MW 3-10'  
Date Sampled: Oct 05, 1992  
Date Analyzed: Oct 09, 1992

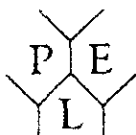
Date Submitted: Oct 06, 1992

Method of Analysis: EPA 8240

Detection limit: 5.0 ug/Kg

COMPOUND NAME	CONCENTRATION ( ug/Kg )	SPIKE RECOVERY (%)
Chloromethane	N.D.	-----
Vinyl Chloride	N.D.	-----
Bromomethane	N.D.	-----
Chloroethane	N.D.	83.1
Trichlorofluoromethane	N.D.	-----
1,1-Dichloroethene	N.D.	-----
Methylene Chloride	N.D.	-----
Trans-1,2-Dichloroethene	N.D.	-----
1,1-Dichloroethane	N.D.	-----
Chloroform	N.D.	85.8
1,1,1-Trichloroethane	N.D.	-----
Carbon Tetrachloride	N.D.	80.6
1,2-Dichloroethane	N.D.	-----
Trichloroethene	N.D.	86.3
1,2-Dichloropropane	N.D.	-----
Bromodichloromethane	N.D.	92.4
2-Chloroethylvinylether	N.D.	-----
Trans-1,3-Dichloropropene	N.D.	-----
Cis-1,3-Dichloropropene	N.D.	-----
1,1,2-Trichloroethane	N.D.	-----
Tetrachloroethene	N.D.	87.8
Benzene	N.D.	92.5
Dibromochloromethane	N.D.	-----
Toluene	N.D.	95.3
Chlorobenzene	N.D.	91.8
Ethylbenzene	N.D.	-----
Bromoform	N.D.	-----
1,1,2,2-Tetrachloroethane	N.D.	-----
Dichlorodifluoromethane	N.D.	-----
Freon 113	N.D.	102.9
M & P-Xylenes	N.D.	-----
O-Xylene	N.D.	-----
1,3-Dichlorobenzene	N.D.	-----
1,4-Dichlorobenzene	N.D.	-----
1,2-Dichlorobenzene	N.D.	-----

David Duong  
Laboratory Director



# PRIORITY ENVIRONMENTAL LABS

Regulatory Analytical Services

October 08, 1992

PEL # 9210011

AQUA SCIENCE ENGINEERS, INC.  
Project name: Oliver Rubber

Attn: David Allen  
Project location: 1200 65th St.-Emeryville, CA  
Project number: 2571

Sample I.D.: MW 3-15'

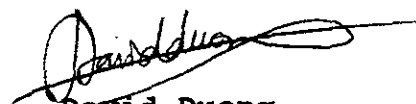
Date Sampled: Oct 01, 1992  
Date Analyzed: Oct 06-07, 1992

Date Submitted: Oct 06, 1992

Method of Analysis: EPA 8010

Detection limit: 1.0 ug/Kg

COMPOUND NAME	CONCENTRATION ( ug/Kg )	SPIKE RECOVERY (%)
Chloromethane	N.D.	-----
Vinyl Chloride	N.D.	89.1
Bromomethane	N.D.	-----
Chloroethane	N.D.	-----
Trichlorofluoromethane	N.D.	-----
1,1-Dichloroethene	N.D.	-----
Methylene Chloride	N.D.	82.6
1,2-Dichloroethene (TOTAL)	N.D.	-----
1,1-Dichloroethane	N.D.	-----
Chloroform	N.D.	90.4
1,1,1-Trichloroethane	N.D.	-----
Carbon Tetrachloride	N.D.	-----
1,2-Dichloroethane	N.D.	-----
Trichloroethene	N.D.	97.2
1,2-Dichloropropane	N.D.	-----
Bromodichloromethane	N.D.	-----
2-Chloroethylvinylether	N.D.	-----
Trans-1,3-Dichloropropene	N.D.	-----
Cis-1,3-Dichloropropene	N.D.	-----
1,1,2-Trichloroethane	N.D.	-----
Tetrachloroethene	N.D.	94.0
Dibromochloromethane	N.D.	-----
Chlorobenzene	N.D.	-----
Bromoform	N.D.	-----
1,1,2,2-Tetrachloroethane	N.D.	-----
1,3-Dichlorobenzene	N.D.	-----
1,4-Dichlorobenzene	N.D.	-----
1,2-Dichlorobenzene	N.D.	-----

  
David Duong  
Laboratory Director



Aqua Science Engineers, Inc.  
 2411 Old Crow Canyon Road, #4,  
 San Ramon, CA 94583  
 (510) 820-9391 - FAX (510) 837-4853

# Chain of Custody INV #

PEL # 9210011

INV # 23110

DATE 10-2-92 PAGE 1 OF 1

SAMPLERS (SIGNATURE)

(PHONE NO.)

PROJECT NAME OLIVER RUBBER

NO. 2571

*David Allen*

510. 820. 9391

ADDRESS 1200 65th ST. EMERYVILLE, CA

## ANALYSIS REQUEST

SPECIAL INSTRUCTIONS:

REGULAR TURNAROUND  
TIMES!

TPH-GASOLINE  
(EPA 5030/8015)

TPH-GASOLINE/BTEX  
(EPA 5030/8015-8020)

TPH-DIESEL  
(EPA 3510/8015)

PURGABLE AROMATICS  
(EPA 602/8020)

PURGABLE HALOCARBONS  
(EPA 601/8010)

VOLATILE ORGANICS  
(EPA 624/8240)

BASE/NEUTRALS, ACIDS  
(EPA 625/8270)

OIL & GREASE  
(EPA 5520 E&F or B&F)

LUFT METALS (5)  
(EPA 6010+7000)

TITLE 22 (CAM 17)  
(EPA 6010+7000)

TCLP  
(EPA 1311/1310)

STLC-CAM WET  
(EPA 1311/1310)

REACTIVITY  
CORROSIVITY  
IGNITABILITY

8270

SAMPLE ID.	DATE	TIME	MATRIX	NO. OF SAMPLES	TPH-GASOLINE (EPA 5030/8015)	TPH-GASOLINE/BTEX (EPA 5030/8015-8020)	TPH-DIESEL (EPA 3510/8015)	PURGABLE AROMATICS (EPA 602/8020)	PURGABLE HALOCARBONS (EPA 601/8010)	VOLATILE ORGANICS (EPA 624/8240)	BASE/NEUTRALS, ACIDS (EPA 625/8270)	OIL & GREASE (EPA 5520 E&F or B&F)	LUFT METALS (5) (EPA 6010+7000)	TITLE 22 (CAM 17) (EPA 6010+7000)	TCLP (EPA 1311/1310)	STLC-CAM WET (EPA 1311/1310)	REACTIVITY CORROSIVITY IGNITABILITY	8270
SB1-10'	10/1/92	12 noon	SOIL	1			X	X				X						
SB2-10'	"	"	SOIL	1			X	X				X						
MW1-10'	"	1pm	SOIL	1			X	X				X						
MW1-15'	"	"	SOIL	1														X
MW2-5'	"	10am	SOIL	1						X								
MW2-10'	"	"	SOIL	1				X										
MW2-15'	"	"	SOIL	1				X	X									
MW3-5'	"	9am	SOIL	1				X										
MW3-10'	"	"	SOIL	1						X								
MW3-15'	"	"	SOIL	1				X	X									

RELINQUISHED BY:

*David Allen*

RECEIVED BY:

RELINQUISHED BY:

RECEIVED BY LABORATORY:

COMMENTS:

(signature) | (time)

(signature) | (time)

(signature) | (time)

(signature) | (time)

DAVID ALLEN 10/6

*David Duong* 8 CC AM

(printed name) (date)

(printed name) (date)

(printed name) (date)

DAVID DUONG 10/06/92

Company- ASE

Company-

Company-

Company- PEL

**APPENDIX C**

California EPA Certified Laboratory  
Report of Groundwater Samples  
and  
Chain of Custody Record



# PRIORITY ENVIRONMENTAL LABS

Environmental Analytical Laboratory

October 08, 1992

PEL # 9210010

AQUA SCIENCE ENGINEERS, INC.

Attn: David Allen

Re: Three water samples for BTEX, Diesel, Oil & Grease, pH and Conductivity analyses.

Project name: Oliver Rubber

Project location: 1200 65th , Emeryville, CA.

Project number: 2571

Date sampled: Oct 05, 1992


Date submitted: Oct 06, 1992

Date extracted: Oct 06-07, 1992

Date analyzed: Oct 06-07, 1992

### RESULTS:

SAMPLE I.D.	pH	Conductivity (uS)	Diesel (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethyl Benzene (ug/L)	Total Xylenes (ug/L)	Oil & Grease (mg/L)
MW 1	6.8	930	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
MW 2	7.0	1100	---	---	---	---	---	---
MW 3	6.7	670	---	---	---	---	---	---
Blank	7.0	0.0	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Spiked Recovery	---	---	93.4%	97.6%	102.4%	98.2%	103.5%	---
Detection limit	0.2	10	50	0.5	0.5	0.5	0.5	0.5
Method of Analysis	9045	120.1	3510 / 8015	602	602	602	602	5520 C & F

  
 David Duong  
 Laboratory Director

Precision Analytical Laboratory, Inc.

4136 LAKESIDE DRIVE RICHMOND, CA 94806

PHONE (510) 222 3002

FAX (510) 222-1251

CERTIFICATE OF ANALYSIS

STATE LICENSE NO. 1150

Received: 10/07/92

Reported: 10/13/92

Job #: 73991

Attn: David Duong  
Priority Environmental Labs  
1764 Houret Court  
Milpitas, CA 95035

Project: #9210011  
Matrix: Water

ACID & BASE/NEUTRAL EXTRACTABLES  
EPA Method 625 - Water  
µg/L

Lab I.D.: 73991-1  
Client I.D.: MW1

<u>ACID COMPOUNDS</u>	<u>CONCENTRATION</u>	<u>LIMIT OF DETECTION</u>
Phenol	ND<5	5
2-chlorophenol	ND<1	1
2-nitrophenol	ND<1	1
2,4-dimethylphenol	ND<1	1
2,4-dichlorophenol	ND<1	1
4-chloro-3-methylphenol	ND<1	1
2,4,6-trichlorophenol	ND<1	1
2,4-dinitrophenol	ND<2	2
4-nitrophenol	ND<2	2
2-methyl-4,6-dinitrophenol	ND<1	1
Pentachlorophenol	ND<2	2

BASE/NEUTRAL COMPOUNDS

N-nitrosodimethylamine	ND<5	5
Bis(2-chloroethyl) ether	ND<1	1
1,3-dichlorobenzene	ND<1	1
1,4-dichlorobenzene	ND<1	1
1,2-dichlorobenzene	ND<1	1
Bis-(2-chloroisopropyl) ether	ND<1	1

ND = Not detected

Susinder Sidhu (For)

Jaime Chow  
Laboratory Director

JC/td

Precision Analytical Laboratory, Inc.

4136 LAKESIDE DRIVE RICHMOND, CA 94806

PHONE (510) 222-3002

FAX (510) 222-1251

STATE LICENSE NO. 1150

Received: 10/07/92

Reported: 10/13/92

Job #: 73991

Attn: David Duong  
Priority Environmental Labs

Project: #9210011  
Matrix: Water

ACID & BASE/NEUTRAL EXTRACTABLES  
EPA Method 625 - Water  
 $\mu\text{g/L}$

Lab I.D.: 73991-1  
Client I.D.: MW1

<u>BASE/NEUTRAL COMPOUNDS</u>	<u>CONCENTRATION</u>	<u>LIMIT OF DETECTION</u>
N-nitrosodi-n-propylamine	ND<1	1
Hexachloroethane	ND<1	1
Nitrobenzene	ND<1	1
Isophorone	ND<1	1
Bis-(2-chloroethoxy)methane	ND<2	2
1,2,4-trichlorobenzene	ND<2	2
Napthalene	ND<3	3
Hexachlorobutadiene	ND<1	1
2-chloronaphthalene	ND<1	1
2-methyl naphthalene	ND<2	2
4-chloroaniline	ND<1	1
2-nitroaniline	ND<1	1
3-nitroaniline	ND<1	1
4-nitroaniline	ND<1	1
Hexachlorocyclopentadiene	ND<1	1
Dimethyl phthalate	ND<10	10
Acenaphthylene	ND<1	1
Acenaphthene	ND<1	1
2,4-dinitrotoluene	ND<1	1
2,6-dinitrotoluene	ND<1	1
Diethyl phthalate	ND<1	1
4-chlorophenylphenylether	ND<1	1
Fluorene	ND<1	1
N-nitrosodiphenylamine	ND<1	1
4-bromophenylphenylether	ND<1	1
Hexachlorobenzene	ND<1	1

ND = Not detected

Page 2 of 3

Precision Analytical Laboratory, Inc.

4136 LAKESIDE DRIVE, RICHMOND, CA 94806

PHONE (510) 222-3072 FAX (510) 222-129

STATE LICENSE NO. 1150

Received: 10/07/92  
Reported: 10/13/92  
Job #: 73991

Attn: David Duong  
Priority Environmental Labs

Project: #9210011  
Matrix: Water

ACID & BASE/NEUTRAL EXTRACTABLES  
EPA Method 625 - Water  
 $\mu\text{g/L}$

Lab I.D.: 73991-1  
Client I.D.: MW1

<u>BASE/NEUTRAL COMPOUNDS</u>	<u>CONCENTRATION</u>	<u>LIMIT OF DETECTION</u>
Phenanthrene	ND<1	1
Anthracene	ND<1	1
Di-n-butylphthalate	ND<3	3
Fluoranthene	ND<2	2
Benzidine	ND<30	30
Pyrene	ND<3	3
Benzylbutylphthalate	ND<1	1
3,3'-dichlorobenzidine	ND<40	40
Benzo(a)anthracene	ND<1	1
Bis-(2-ethylhexyl)phthalate	ND<12	12
Chrysene	ND<2	2
Di-n-octylphthalate	ND<2	2
Benzo(b)fluoranthene	ND<3	3
Benzo(k)fluoranthene	ND<3	3
Benzo(a)pyrene	ND<1	1
Indeno(1,2,3-cd)pyrene	ND<5	5
Dibenzo(a,h)anthracene	ND<3	3
Benzo(ghi)perylene	ND<2	2

ND = Not detected



# PRIORITY ENVIRONMENTAL LABS

Environmental Analytical Laboratory

October 09, 1992

PEL # 9210010

AQUA SCIENCE ENGINEERS, INC.  
Project Name: Oliver Rubber

Attn: David Allen  
Project Number: 2571  
Project location: 1200 65th St.-Emeryville, CA

Sample I.D.: MW 2  
Date Sampled: Oct 05, 1992  
Date Analyzed: Oct 09, 1992

Date Submitted: Oct 06, 1992

Method of Analysis: EPA 624

Detection limit: 0.5 ug/L

COMPOUND NAME	CONCENTRATION ( ug/L )	SPIKE RECOVERY ( % )
Chloromethane	N.D.	-----
Vinyl Chloride	N.D.	-----
Bromomethane	N.D.	-----
Chloroethane	N.D.	83.1
Trichlorofluoromethane	N.D.	-----
1,1-Dichloroethene	N.D.	-----
Methylene Chloride	N.D.	-----
Trans-1,2-Dichloroethene	N.D.	-----
1,1-Dichloroethane	N.D.	-----
Chloroform	N.D.	85.8
1,1,1-Trichloroethane	N.D.	-----
Carbon Tetrachloride	N.D.	80.6
1,2-Dichloroethane	N.D.	-----
Trichloroethene	N.D.	86.3
1,2-Dichloropropane	N.D.	-----
Bromodichloromethane	N.D.	92.4
2-Chloroethylvinylether	N.D.	-----
Trans-1,3-Dichloropropene	N.D.	-----
Cis-1,3-Dichloropropene	N.D.	-----
1,1,2-Trichloroethane	N.D.	-----
Tetrachloroethene	N.D.	87.8
Benzene	N.D.	92.5
Dibromochloromethane	N.D.	-----
Toluene	N.D.	95.3
Chlorobenzene	N.D.	91.8
Ethylbenzene	N.D.	-----
Bromoform	N.D.	-----
1,1,2,2-Tetrachloroethane	N.D.	-----
Dichlorodifluoromethane	N.D.	-----
Freon 113	N.D.	102.9
M & P-Xylenes	N.D.	-----
O-Xylene	N.D.	-----
1,3-Dichlorobenzene	N.D.	-----
1,4-Dichlorobenzene	N.D.	-----
1,2-Dichlorobenzene	N.D.	-----

David Duong  
Laboratory Director



# PRIORITY ENVIRONMENTAL LABS

Priority Environmental Analytical Laboratory

October 09, 1992

PEL # 9210010

AQUA SCIENCE ENGINEERS, INC.  
Project Name: Oliver Rubber

Attn: David Allen  
Project Number: 2571  
Project location: 1200 65th St.-Emeryville, CA

Sample I.D.: MW 3  
Date Sampled: Oct 05, 1992  
Date Analyzed: Oct 09, 1992

Date Submitted: Oct 06, 1992

Method of Analysis: EPA 624

Detection limit: 0.5 ug/L

COMPOUND NAME	CONCENTRATION ( ug/L )	SPIKE RECOVERY ( % )
Chloromethane	N.D.	-----
Vinyl Chloride	N.D.	-----
Bromomethane	N.D.	-----
Chloroethane	N.D.	83.1
Trichlorofluoromethane	N.D.	-----
1,1-Dichloroethene	N.D.	-----
Methylene Chloride	N.D.	-----
Trans-1,2-Dichloroethene	N.D.	-----
1,1-Dichloroethane	N.D.	-----
Chloroform	N.D.	85.8
1,1,1-Trichloroethane	N.D.	-----
Carbon Tetrachloride	N.D.	80.6
1,2-Dichloroethane	N.D.	-----
Trichloroethene	N.D.	86.3
1,2-Dichloropropane	N.D.	-----
Bromodichloromethane	N.D.	92.4
2-Chloroethylvinylether	N.D.	-----
Trans-1,3-Dichloropropene	N.D.	-----
Cis-1,3-Dichloropropene	N.D.	-----
1,1,2-Trichloroethane	N.D.	-----
Tetrachloroethene	N.D.	87.8
Benzene	N.D.	92.5
Dibromochloromethane	N.D.	-----
Toluene	N.D.	95.3
Chlorobenzene	N.D.	91.8
Ethylbenzene	N.D.	-----
Bromoform	N.D.	-----
1,1,2,2-Tetrachloroethane	N.D.	-----
Dichlorodifluoromethane	N.D.	-----
Freon 113	N.D.	102.9
M & P-Xylenes	N.D.	-----
O-Xylene	N.D.	-----
1,3-Dichlorobenzene	N.D.	-----
1,4-Dichlorobenzene	N.D.	-----
1,2-Dichlorobenzene	N.D.	-----

  
David Duong  
Laboratory Director



Aqua Science Engineers, Inc.  
 2411 Old Crow Canyon Road, #4,  
 San Ramon, CA 94583  
 (510) 820-9391 - FAX (510) 837-4853

# Chain of Custody

TEL # 9216670  
 INV # 23109

DATE 10/5/92 PAGE 1 OF 1

SAMPLERS (SIGNATURE) David Allen (PHONE NO.) \_\_\_\_\_

PROJECT NAME OLIVER RUBBER NO. 2371  
 ADDRESS 1200 65th St. EMERYVILLE CA

## ANALYSIS REQUEST

SPECIAL INSTRUCTIONS:  
 STANDARD  
 TURNAROUND TIMES

SAMPLE ID.	DATE	TIME	MATRIX	NO. OF SAMPLES	TPH- GASOLINE (EPA 5030/8015)	TPH- GASOLINE/BTEX (EPA 5030/8015-8020)	TPH- DIESEL (EPA 3510/8015)	PURGABLE AROMATICS (EPA 602/8020)	PURGABLE HALOCARBOONS (EPA 601/8010)	VOLATILE ORGANICS (EPA 624/8240)	BASE/NEUTRALS, ACIDS (EPA 625/8270)	OIL & GREASE (EPA 5520 E&F or B&F)	LEAD METALS (5) (EPA 6010+7000)	TITLE 22 (CAM 17) (EPA 6010+7000)	TCLP (EPA 1311/1310)	STLC- CAM WET (EPA 1311/1310)	REACTIVITY CORROSIVITY IGNITABILITY	8270	pH	Conductivity
					MW1	10/5	3pm	H <sub>2</sub> O	4			X	X				X			
MW2	"	"	H <sub>2</sub> O	1						X									X	X
MW3	"	"	H <sub>2</sub> O	1						X									X	X

RELINQUISHED BY:  
David Allen  
 (signature) (time)  
 DAVID ALLEN 10/6  
 (printed name) (date)  
 Company- ASE

RECEIVED BY:  
 (signature) (time)  
 (printed name) (date)  
 Company-

RELINQUISHED BY:  
 (signature) (time)  
 (printed name) (date)  
 Company-

RECEIVED BY LABORATORY:  
David Jung 8 on Am  
 (signature) (time)  
 DAVID JUNG 10/6/92  
 (printed name) (date)  
 Company- TEL

COMMENTS:

**APPENDIX D**

Soil Boring Logs and Well Logs

**SOIL BORING LOG AND MONITORING WELL CONSTRUCTION DETAILS**

**BORING NO. SB1**

Project Name: Oliver Rubber

Project Location: 1200 65th Street, Oakland

Page 1 of 1

Driller: WEST HAZMAT

Type of Rig: Simco 2400 SK-1

Type and Size of Auger: 6.00" O.D., H.S.

Logged By: WCL

Date Drilled: 10/01/92

Checked By: David M. Schultz, P.E.

**WATER AND WELL DATA**

Total Depth of Well Completed: N/A

Depth of Water First Encountered: N/A

Well Screen Type and Diameter: N/A

Static Depth of Water in Well: N/A

Well Screen Slot Size: N/A

Total Depth of Boring: 15'

Type and Size of Soil Sampler: 2" I.D., Calif. Split-Spoon

Depth in Feet	WELLBORING DETAIL	Description	SOIL/ROCK SAMPLE DATA				Depth in Feet	DESCRIPTION OF LITHOLOGY			
			Interval	Blow Ct.	Field VOC (ppmv)	Graphic Log		standard classification, texture, relative moisture, density, stiffness, odor-staining, USCS designation.			
								And (40-50%)	With (40-25%)	Some (25-10%)	Trace (10-0%)
0						0	Approximately 4" of asphalt				
5					< 10	5	Dark Gray Clay (CL) from 2 to 5 feet				
10					< 10	10	Blue-Green Clay (CL), some plant matter, cobbles, slight moisture, no odor				
15						15	Brown clay (CL), some plant matter slight moisture, no odor				
20							Brown clay (CL), some plant matter, very moist some pebbles, no odor				
25							EOH = 15'				

**SOIL BORING LOG AND MONITORING WELL CONSTRUCTION DETAILS**

**BORING NO. SB2**

Project Name: Oliver Rubber

Project Location: 1200 65th Street, Oakland

Page 1 of 1

Driller: WEST HAZMAT

Type of Rig: Simco 2400 SK-1

Type and Size of Auger: 6.00" O.D., H.S.

Logged By: WCL

Date Drilled: 10/01/92

Checked By: David M. Schultz, P.E.

**WATER AND WELL DATA**

Depth of Water First Encountered: N/A

Total Depth of Well Completed: N/A

Well Screen Type and Diameter: N/A

Static Depth of Water in Well: N/A

Well Screen Slot Size: N/A

Total Depth of Boring: 15'

Type and Size of Soil Sampler: 2" I.D., Calif. Split-Spoon

Depth in Feet	WELLBORING DETAIL	Description	SOIL/ROCK SAMPLE DATA				Depth in Feet	DESCRIPTION OF LITHOLOGY			
			Interval	Blow Ct.	Field VOC (ppmv)	Graphic Log		standard classification, texture, relative moisture, density, stiffness, odor-staining, USCS designation.			
								And (40-50%)	With (40-25%)	Some (25-10%)	Trace (10-0%)
0						0	Approximately 4" of asphalt				
5					< 10	5	Dark Gray Clay (CL), no odor				
10					< 10	10	Blue-Green Clay (CL), some plant matter, slight moisture, no odor				
15						15	Brown, silty clay (CL), some plant matter slight moisture, abundant pebbles, no odor				
20							Brown, silty clay (CL), some plant matter very moist, abundant pebbles, no odor				
25							EOH = 15'				

**SOIL BORING LOG AND MONITORING WELL CONSTRUCTION DETAILS**

WELL NO. MW1

Project Name: Oliver Rubber

Project Location: 1200 65th Street, Oakland

Page 1 of 1

Driller: WEST HAZMAT

Type of Rig: Simco 2400 SK-1

Type and Size of Auger: 6.00" O.D., H.S.

Logged By: WCL

Date Drilled: 10/01/92

Checked By: David M. Schultz, P.E.

**WATER AND WELL DATA**

Total Depth of Well Completed: 25.0'

Depth of Water First Encountered: ~ 15'

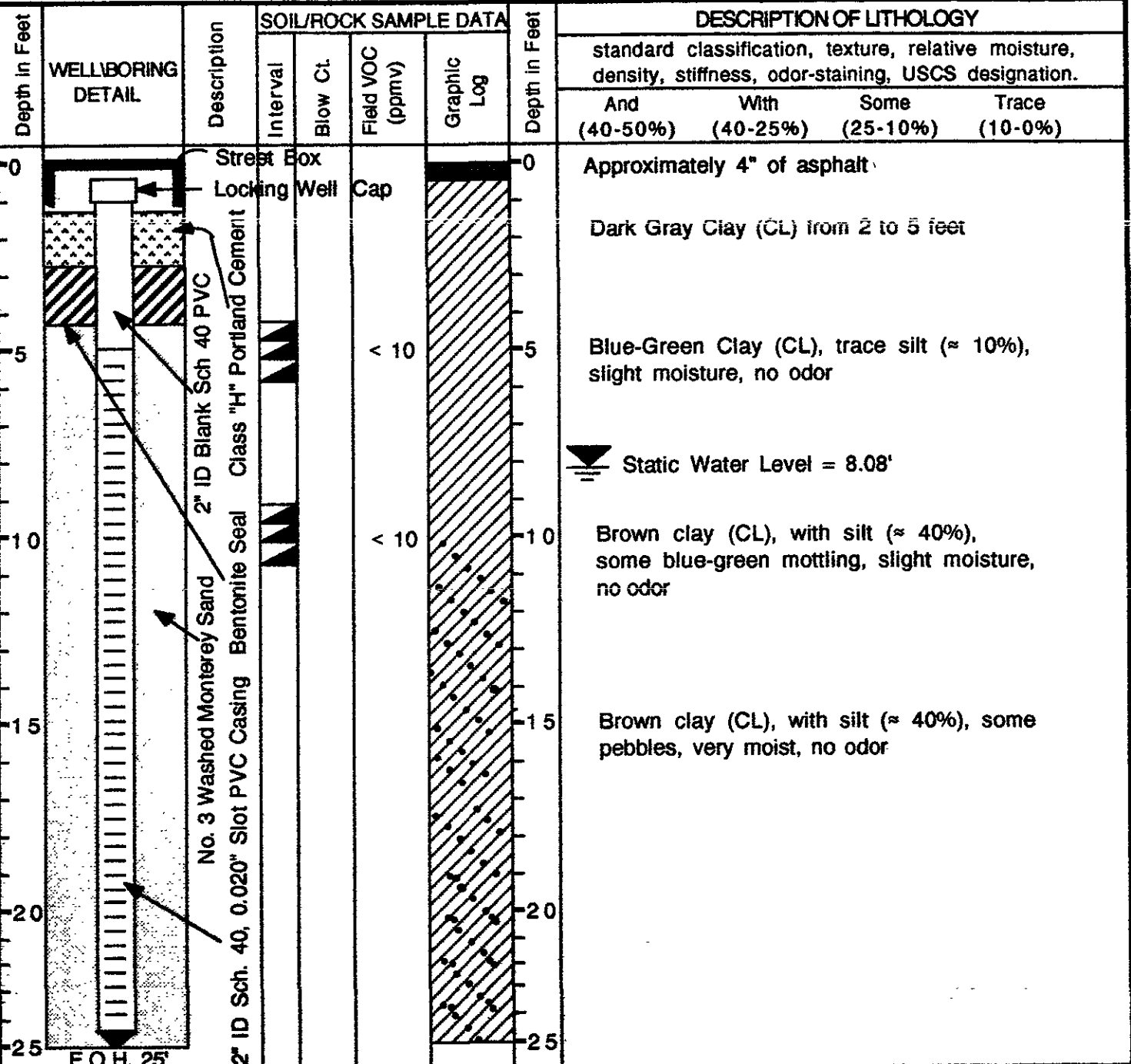
Well Screen Type and Diameter: 2" Diameter Schedule 40 PVC

Static Depth of Water in Well: 8.08' Below T.O.C.

Well Screen Slot Size: 0.020"

Total Depth of Boring: 25'

Type and Size of Soil Sampler: 2" I.D., Calif. Split-Spoon



# SOIL BORING LOG AND MONITORING WELL CONSTRUCTION DETAILS

WELL NO. MW2

Project Name: Oliver Rubber

Project Location: 1200 65th Street, Oakland

Page 1 of 1

Driller: WEST HAZMAT

Type of Rig: CME 75

Type and Size of Auger: 8.0" O.D., H.S.

Logged By: WCL

Date Drilled: 10/01/92

Checked By: David M. Schultz, P.E.

## WATER AND WELL DATA

Total Depth of Well Completed: 25.0'

Depth of Water First Encountered: ~ 15'

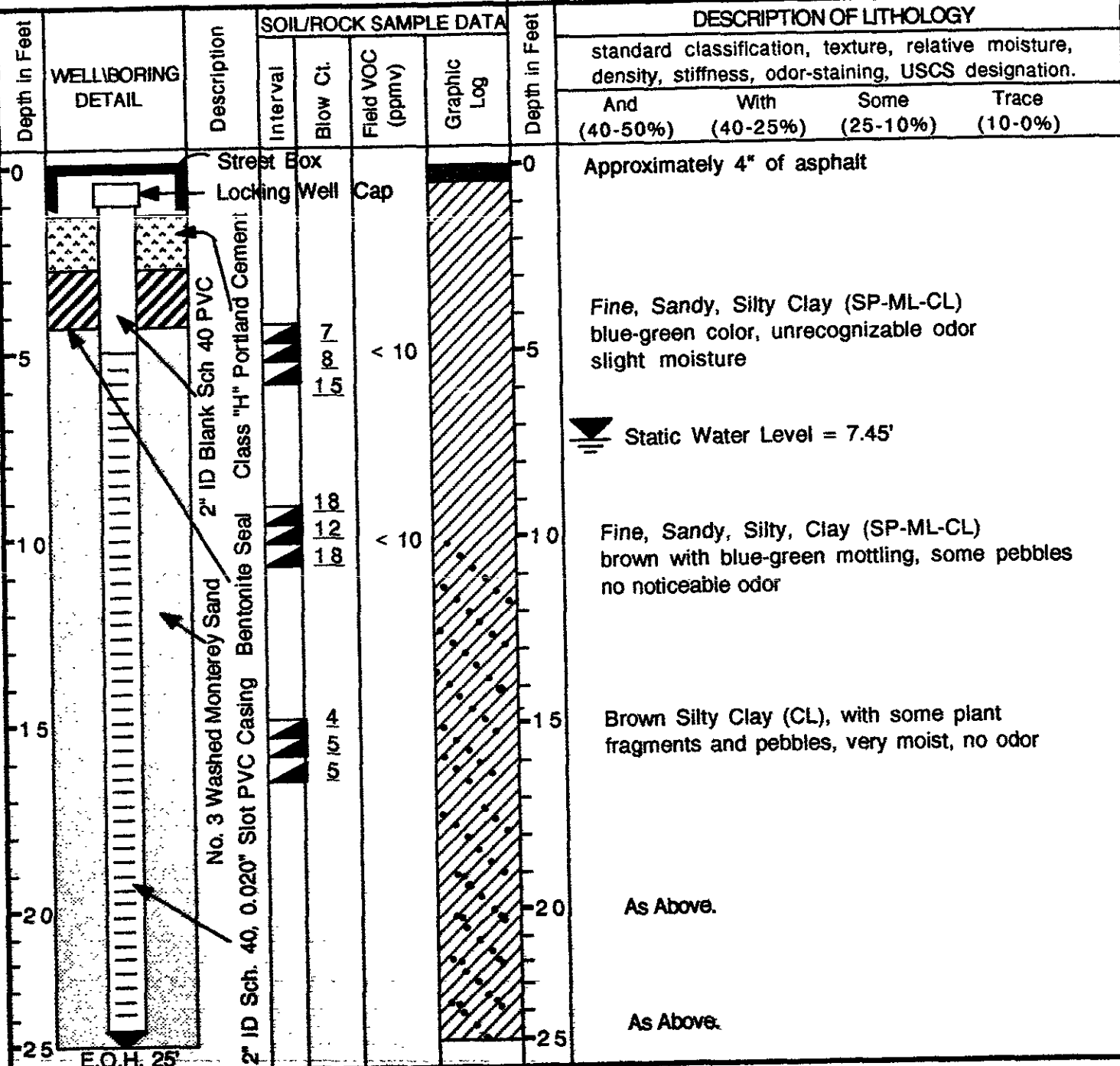
Well Screen Type and Diameter: 2" Diameter Schedule 40 PVC

Static Depth of Water in Well: 7.45' Below T.O.C.

Well Screen Slot Size: 0.020"

Total Depth of Boring: 25'

Type and Size of Soil Sampler: 2" I.D., Calif. Split-Spoon



**SOIL BORING LOG AND MONITORING WELL CONSTRUCTION DETAILS**

**WELL NO. MW3**

Project Name: Oliver Rubber

Project Location: 1200 65th Street, Oakland

Page 1 of 1

Driller: WEST HAZMAT

Type of Rig: CME 75

Type and Size of Auger: 8.0" O.D., H.S.

Logged By: WCL

Date Drilled: 10/01/92

Checked By: David M. Schultz, P.E.

**WATER AND WELL DATA**

Depth of Water First Encountered: - 17'

Static Depth of Water in Well: 7.44' Below T.O.C.

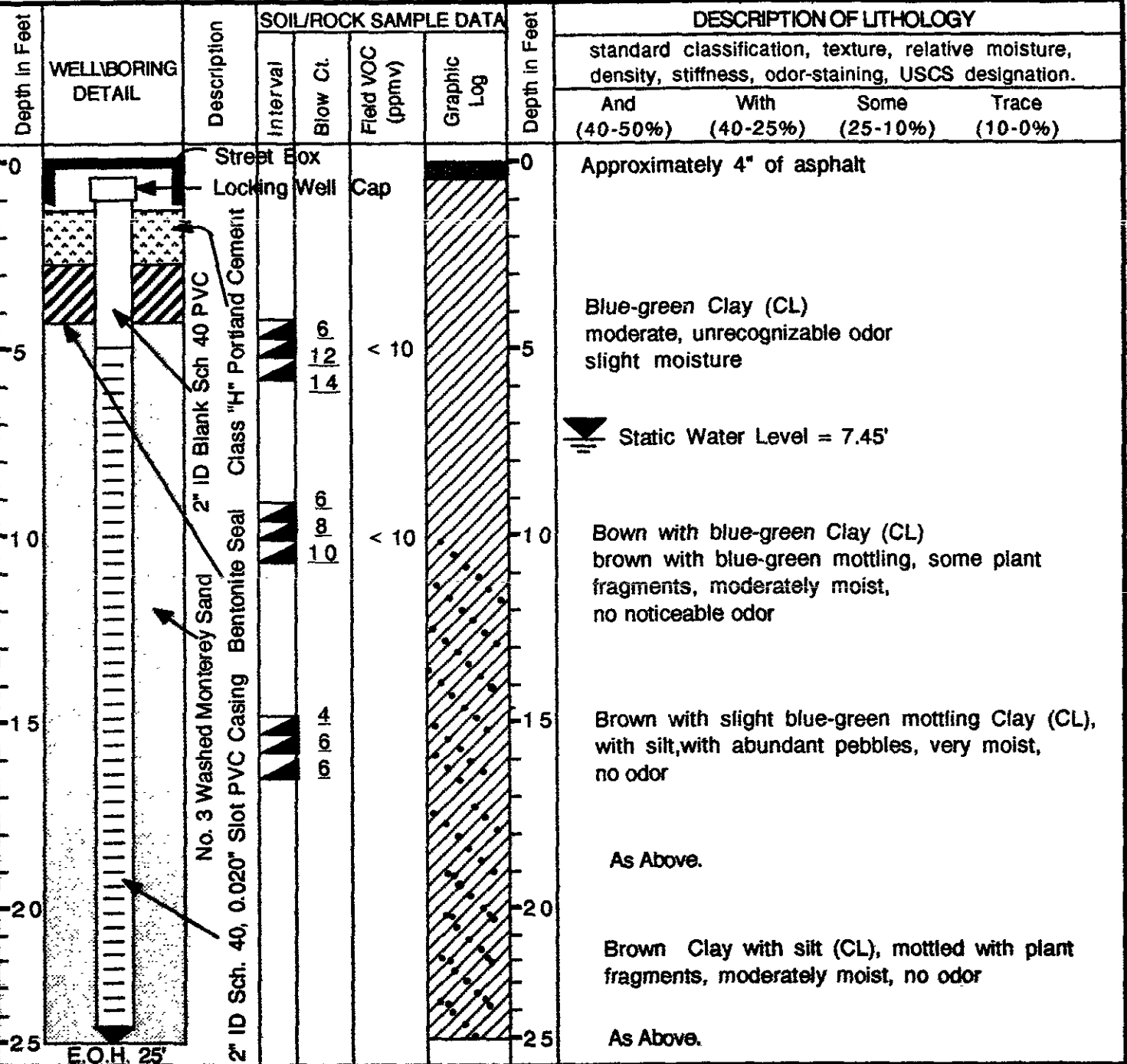
Total Depth of Boring: 25'

Total Depth of Well Completed: 25.0'

Well Screen Type and Diameter: 2" Diameter Schedule 40 PVC

Well Screen Slot Size: 0.020"

Type and Size of Soil Sampler: 2" I.D., Calif. Split-Spoon



**APPENDIX E**

Well Sampling Field Logs





## WELL SAMPLING FIELD LOG

Aqua Science Engineers, Inc. San Ramon, CA 94583

Project Name: Oliver Rubber Co.  
Project Address: 1200 65th Street, Emeryville  
Job # 2571 Date of sampling: 10-5-92  
Completed by: Dave Allen  
Well Number / Designation: MW-1  
Top of casing elevation: 20.0'  
Total depth of well casing: 25' Well diameter: 2"  
Depth to water (before sampling): 8.08'  
Thickness of floating product if any: N/A  
Depth of well casing in water: 16.92'  
Req'd volume of groundwater to be purged before sampling: 10 Gallons  
Approximate volume of groundwater purged: 10 Gallons  
Type of seal at grade: Portland Cement  
Type of cap on the casing: Expandable, Locking  
Is the seal water tight? Yes Is the cap water tight? Yes  
Number of samples (containers) collected (2) -1 Liters, (2) 40 ml VOA  
Did 40 ml VOA vials have headspace: No  
Were sample containers chilled after sampling & for delivery ? Yes  
Are Chain of Custody documents accompanying the samples: Yes  
Sample temperature: 19°C  
Sample pH: 6.8 Test method: 9045

Physical description of water during initial bailing period:

Turbid, grey

Physical description of water sample: Clear

Type of analysis requested: 3510/8015

8020

8240

8270

Type of bailer/sampling equipment used: PVC & Disposable

Equipment decontamination procedures: TSP & Water

Disposition of bailed water volume:

Remained on site, drummed.



## WELL SAMPLING FIELD LOG

Aqua Science Engineers, Inc. San Ramon, CA 94583

Project Name: Oliver Rubber Co.  
Project Address: 1200 65th Street, Emeryville  
Job # 2571 Date of sampling: 10-5-92  
Completed by: Dave Allen  
Well Number / Designation: MW-2  
Top of casing elevation: 19.2'  
Total depth of well casing: 25' Well diameter: 2"  
Depth to water (before sampling): 7.45'  
Thickness of floating product if any: N/A  
Depth of well casing in water: 17.55'  
Req'd volume of groundwater to be purged before sampling: 10 Gallons  
Approximate volume of groundwater purged: 10 Gallons  
Type of seal at grade: Portland Cement  
Type of cap on the casing: Expandable, Locking  
Is the seal water tight? Yes Is the cap water tight? Yes  
Number of samples (containers) collected (2) 40 ml VOA  
Did 40 ml VOA vials have headspace: No  
Were sample containers chilled after sampling & for delivery? Yes  
Are Chain of Custody documents accompanying the samples: Yes  
Sample temperature: 19°C  
Sample pH: 7.0 Test method: 9045

Physical description of water during initial bailing period:

Turbid, grey

Physical description of water sample: Clear

Type of analysis requested: 8240

Type of bailer/sampling equipment used: PVC & Disposable

Equipment decontamination procedures: TSP & Water

Disposition of bailed water volume:

Remained on site, drummed



## WELL SAMPLING FIELD LOG

Aqua Science Engineers, Inc. San Ramon, CA 94583

Project Name: Oliver Rubber Co.

Project Address: 1200 65th Street, Emeryville

Job # 2571 Date of sampling: 10-5-92

Completed by: Dave Allen

Well Number / Designation: MW-3

Top of casing elevation: 19.80'

Total depth of well casing: 25' Well diameter: 2"

Depth to water (before sampling): 7.44'

Thickness of floating product if any: N/A

Depth of well casing in water: 17.46'

Req'd volume of groundwater to be purged before sampling: 10 Gallons

Approximate volume of groundwater purged: 10 Gallons

Type of seal at grade: Portland Cement

Type of cap on the casing: Expandable, Locking

Is the seal water tight? Yes Is the cap water tight? Yes

Number of samples (containers) collected (2) 40 ml VOA

Did 40 ml VOA vials have headspace: No

Were sample containers chilled after sampling & for delivery? Yes

Are Chain of Custody documents accompanying the samples: Yes

Sample temperature: 19° C

Sample pH: 6.7 Test method: 9045

Physical description of water during initial bailing period:

Turbid, grey

Physical description of water sample: Clear

Type of analysis requested: 8240

Type of bailer/sampling equipment used: PVC & Disposable

Equipment decontamination procedures: TSP & Water

Disposition of bailed water volume:

Remained on site, drummed.

**APPENDIX F**

Permits



ALBUQUERQUE WATER RESOURCES DIVISION  
SAN RAMON, CALIFORNIA 94583 510-464-2600

15 September 1992

Aqua Science Engineers, Inc.  
2411 Old Crow Canyon Road  
San Ramon, CA 94583

Gentlemen:

Enclosed is drilling permit 92444 for a monitoring well construction project at 1200 - 65th Street in Oakland for Ron Kessler.

Please note that permit condition A-2 requires that a well construction report be submitted after completion of the work. The report should include drilling and completion logs, location sketch, and permit number.

If you have any questions, please contact Wyman Hong or me at 484-2600.

Very truly yours,

*Craig A. Mayfield*

Craig A. Mayfield  
Water Resources Engineer III

CM:mm  
Enc.

RECEIVED  
SEP 16 1992  
AQUA SCIENCE ENG



ZONE 7 WATER RESOURCES

5997 PARKSIDE DRIVE

PLEASANTON, CALIFORNIA 94588

VOICE (510) 484-2600

FAX (510) 462-3914

DRILLING PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

FOR OFFICE USE

LOCATION OF PROJECT OLIVER RUBBER COMPANY
1200 65th Street
Oakland, CA 94662

PERMIT NUMBER 92444
LOCATION NUMBER

CLIENT
Name Mr. Ron Kessler
Address 1200 65th Street Phone 510-654-7711
City Oakland, CA Zip 94662

PERMIT CONDITIONS

Circled Permit Requirements Apply

APPLICANT
Name Aqua Science Engineers, Inc.
Address 2411 Old Crow Canyon Rd. #4, 820-9391
City San Ramon, CA Zip 94583

TYPE OF PROJECT
Well Construction Geotechnical Investigation
Cathodic Protection General
Water Supply Contamination
Monitoring X Well Destruction

PROPOSED WATER SUPPLY WELL USE
Domestic Industrial Other
Municipal Irrigation

DRILLING METHOD:
Mud Rotary Air Rotary Auger X
Cable Other

DRILLER'S LICENSE NO. 487000

WELL PROJECTS
Drill Hole Diameter 8.5 in. Maximum
Casing Diameter 2.0 in. Depth 25 ft.
Surface Seal Depth 5.0 ft. Number 1

GEOTECHNICAL PROJECTS
Number of Borings 2 Maximum
Hole Diameter 8.5 in. Depth 15 ft.

ESTIMATED STARTING DATE 9-14-92
ESTIMATED COMPLETION DATE 9-14-92

I hereby agree to comply with all requirements of this permit and Alameda County Ordinance No. 73-68.

Approved Wyman Hong Date 11 Sep

APPLICANT'S SIGNATURE David All Date 9-9-92