



SC 77117, 1/1/93

February 8, 1993

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

Subject: Quarterly Groundwater Monitoring Report  
Second Quarter - January 18, 1993  
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 Hiatt - Regional  
Water Quality Control Board  
David Allen - ASE

Oliver Rubber Company

General Office: 1200 65th Street, P.O. Box 8447, Oakland, CA 94662 • (510) 654-7711 TWX 990106 (ORCO EMVL)  
FAX (510) 655-6319  
Oakland, CA • Athens, GA • Paris, TX • Asheboro, NC • Dallas, TX • Export, PA



Subsidiary of  
THE STANDARD PRODUCTS CO.



January 29, 1993

**QUARTERLY  
GROUNDWATER MONITORING REPORT  
SECOND QUARTER - JANUARY 18, 1993**  
for  
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

## 1.0 INTRODUCTION

### Site Location (Site), See Figure 1, Site Location Map

1200 65th Street  
Emeryville, CA

### Property Owner

The Oliver Rubber Company  
1200 65th Street  
Emeryville, CA  
Contact: Mr. Ron Kessler  
(510) 654-7711

### Environmental Consulting Firm

Aqua Science Engineers, Inc.  
2411 Old Crow Canyon Road, #4  
San Ramon, CA 94583  
Contact: David Allen, Project Manager  
(510) 820-9391

### Agency Review

Alameda County Health Care Services Agency (ACHCSA)  
80 Swan Way, Room 350  
Oakland, CA 94621  
Contact: Ms. Susan Hugo

RWQCB, San Francisco Bay Region  
2101 Webster Street, Fourth Floor  
Oakland, CA 94612  
Contact: Mr. Rich Hiett

The following is a report detailing the second quarter of a four quarter groundwater monitoring program, as required by the RWQCB and the ACHCSA. Aqua Science Engineers, Inc. (ASE) has prepared this report on behalf of the property owner, The Oliver Rubber Company. This report is intended as a supplement to the following reports: "Project Report - Phase II Soil and Groundwater Assessment", produced by ASE in October, 1992 where three monitoring wells were installed; "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.

## 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. 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. In October of 1992, three groundwater monitoring wells were installed, developed and sampled for chemical contamination. The results of this investigation can be found in the October 1992, ASE report.

### 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 10-12 feet below grade at the site, and flows in a westerly direction towards the San Francisco Bay.

### 3.0 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.

What follows is the results of groundwater sampling and analysis during the second quarter period. Included in this section are the results of the previous quarter's results.

### 4.0 GROUND WATER SAMPLE COLLECTION AND CHEMICAL ANALYSIS

On January 18, 1993, ASE personnel arrived on site. 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 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 A. Well Sampling Field Logs are attached in Appendix B.

The groundwater samples collected for this quarter were analyzed for all or a combination of the following: TPH as Gasoline, TPH as Diesel, BTEX, Oil & Grease, Volatile Organics, pH, and Conductivity. The results are tabulated below in tables One, Two and Three. These tables also contain results from the previous quarter.

**TABLE ONE**  
**Summary of Chemical Analysis of WATER Samples**  
**TPH as Gas, Diesel, BTEX, and Oil & Grease**  
**EPA Methods 5030/8015, 3510/8015, 602, and 5520 C&F**

Sample I.D.	TPH Gas (ppb)	TPH Diesel (ppb)	Benzene (ppb)	Toluene (ppb)	Ethyl Benzene (ppb)	Total Xylenes (ppb)	Oil & Grease (ppm)
10/5/92							
MW-1	---	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
MW-2	---	---	---	---	---	---	---
MW-3	---	---	---	---	---	---	---
1/18/93							
MW-1	---	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
MW-2	N.D.	---	N.D.	N.D.	N.D.	N.D.	---
MW-3	N.D.	---	N.D.	N.D.	N.D.	N.D.	---
EPA METHOD	5030/ 8015	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 TWO**  
**Summary of Chemical Analysis of Water Samples**  
**Volatile Organics**  
**EPA Method 624**

Sample I.D.	All Volatile Organics
-----	
10/5/92	
MW-1	---
MW-2	N.D.
MW-3	N.D.
1/18/93	
MW-1	---
MW-2	N.D.
MW-3	N.D.
EPA METHOD	624

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

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

Sample I.D.	pH	Conductivity
-----		
10/5/92		
MW-1	6.8	930
MW-2	7.0	1100
MW-3	6.7	670
1/18/93		
MW-1	6.6	1000
MW-2	6.7	1030
MW-3	6.7	650
EPA METHOD	9045	120.1

## 5.0 GROUNDWATER GRADIENT AND DIRECTION

The elevations of the tops of the well casings were surveyed relative to mean sea level (MSL) several days after their installation. The depths to groundwater were measured in each well on January 18, 1993 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 for the January 18 sampling date.

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

Well Number	Depth to Water	Top of Casing Elevation	Groundwater Elevation
MW-1	4.0 ft.	20.0 ft. AMSL	16.00 ft. AMSL
MW-2	3.8 ft.	19.21 ft. AMSL	15.41 ft. AMSL
MW-3	3.46 ft.	19.80 ft. AMSL	16.34 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 0.013 ft/ft. Previously, the groundwater gradient was calculated as flowing west at 0.02 ft/ft.

ASE has been conducting monthly groundwater level measurements at the site as well. The data in Table Five is as follows (IN FEET ABOVE MEAN SEA LEVEL):

**TABLE FIVE**  
Monthly Groundwater Elevations

	<u>MW-1</u>	<u>MW-2</u>	<u>MW-3</u>
OCTOBER	11.92'	11.76'	12.36'
NOVEMBER	12.32'	11.80'	12.44'
DECEMBER	12.54'	12.14'	12.64'
JANUARY	16.00'	15.41'	16.34'



## 6.0 CONCLUSIONS

Based on the results of the chemical analyses, for the second successive quarter groundwater sampling and analysis has resulted in Non-Detectable (N.D.) levels of the constituents of which were tested.

## 7.0 RECOMMENDATIONS

Aqua Science Engineers recommends continuing with the groundwater monitoring program. The next sampling period will occur in the month of April, 1993. Should groundwater sampling and analysis result in N.D. levels of the constituents of which are being test, ASE will recommend applying for site closure.

## 8.0 REPORT LIMITATIONS

The results of this investigation represent conditions at the time at which 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.

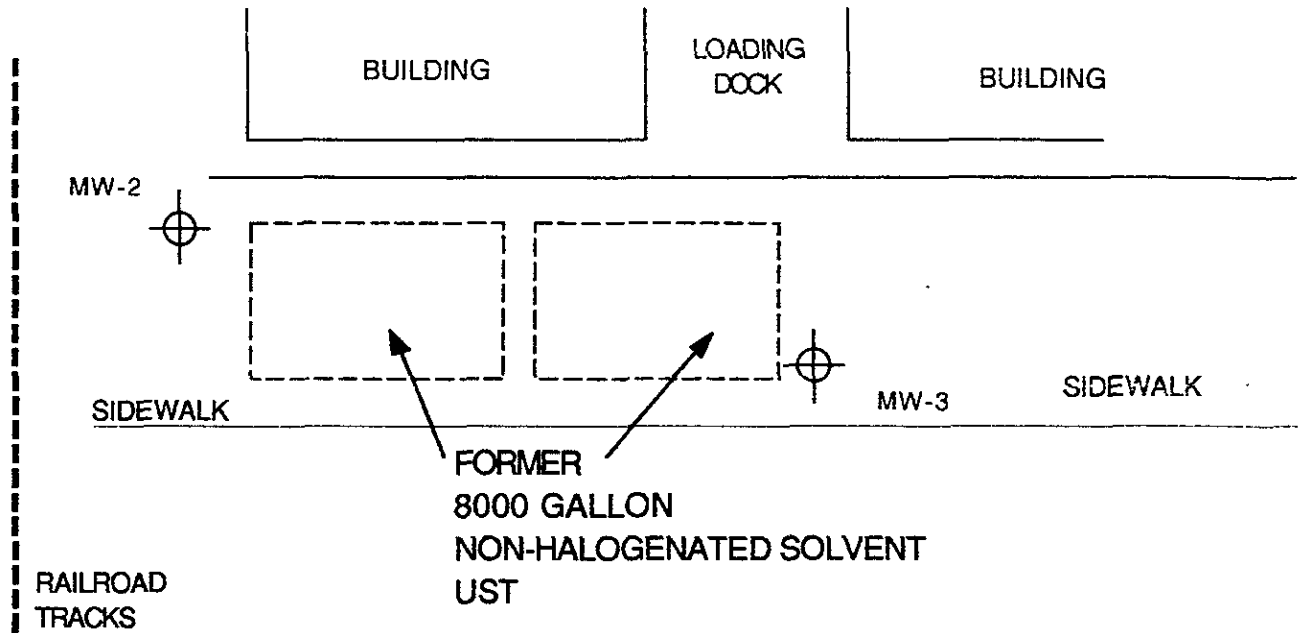


David Allen  
Project Manager

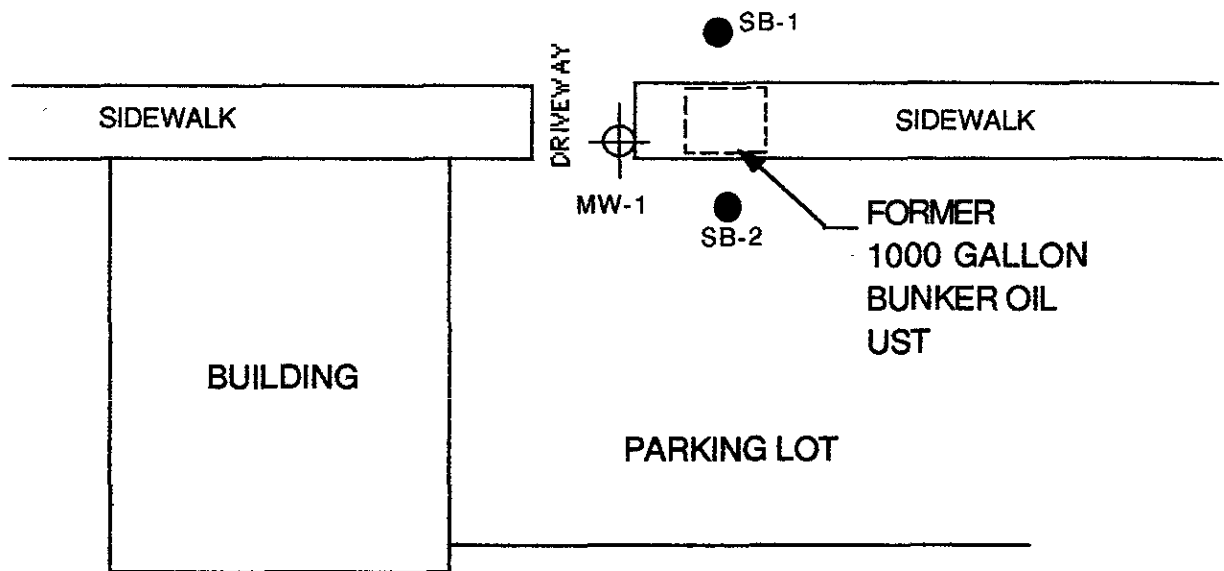
cc: Mr. Ron Kessler, The Oliver Rubber Company  
Ms. Susan Hugo, ACHCSA  
Mr. Rich Hiatt, RWQCB, San Francisco Bay Region



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



# 65th Street



**LEGEND**

● SB-1 Soil Boring

⊕ MW-1 Monitoring Well

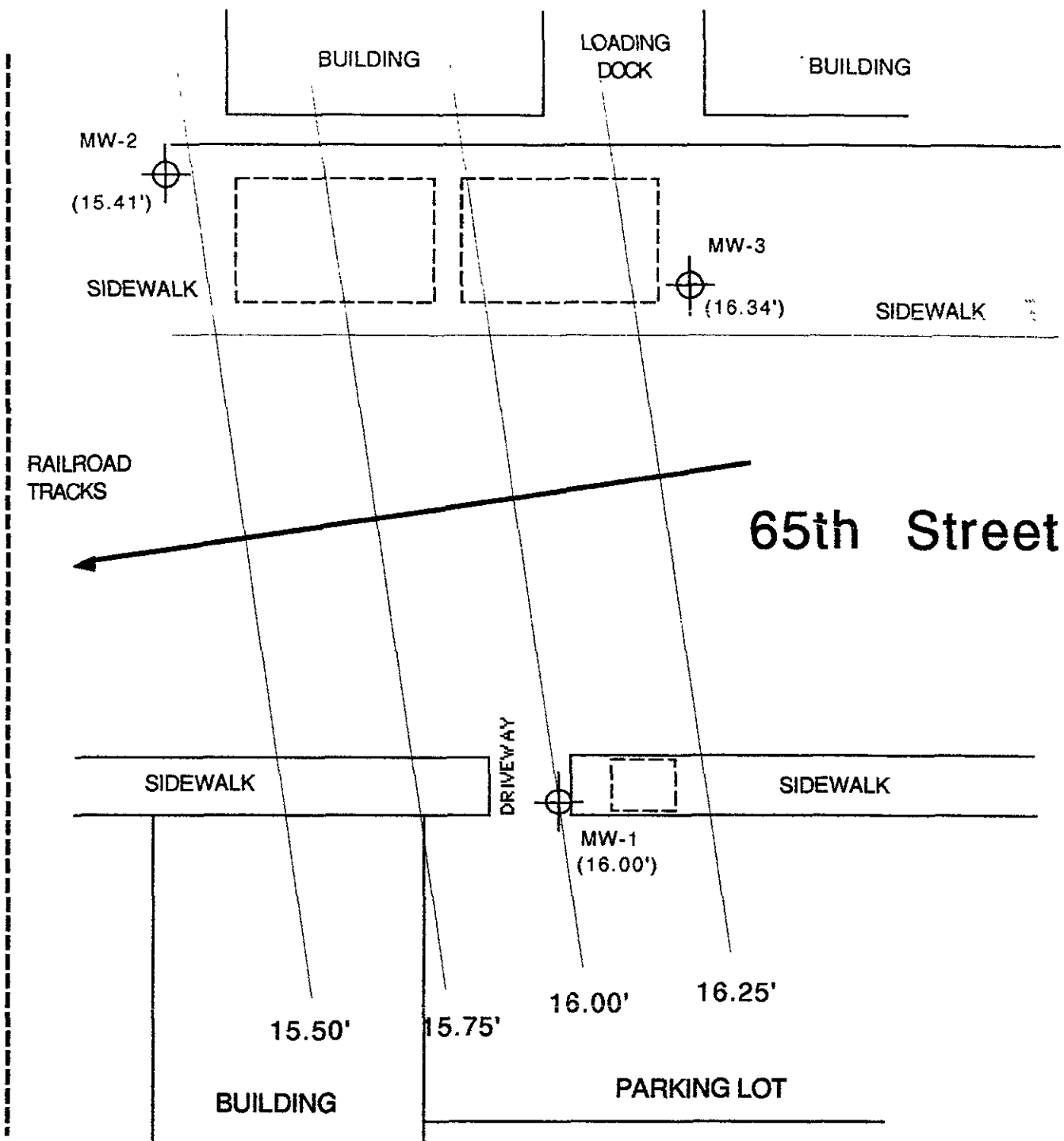


0 ft. 20 ft.  
SCALE

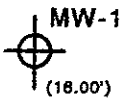
**SITE PLAN**

Oliver Rubber  
1200 65th Street  
Emeryville, California

Aqua Science Engineers | Figure 2



**LEGEND**



Monitoring Well with groundwater depth in feet above mean sea level



Groundwater Gradient direction

0 ft. 20 ft.  
SCALE

GROUNDWATER GRADIENT  
MAP (1/18/93)

Oliver Rubber  
1200 65th Street  
Emeryville, California

**APPENDIX A**

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



# PRIORITY ENVIRONMENTAL LABS

January 21, 1993

PEL # 9301028

AQUA SCIENCE ENGINEERS, INC.

Attn: Steve DeHope  
Re: Three water samples for pH, Gasoline/BTEX, Diesel, Oil & Grease, and Conductivity analyses.

Project name: Oliver Rubber  
Project location: 1200 65th St. -Emeryville  
Project number: 2571

Date sampled: Jan 18 1993  
Date extracted: Jan 19-20, 1993

Date submitted: Jan 19, 1993  
Date analyzed: Jan 19-20, 1993

### RESULTS:

SAMPLE I.D.	pH	Gasoline (ug/L)	Diesel (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethyl Benzene (ug/L)	Total Xylenes (ug/L)	Oil & Grease (mg/L)	Conductivity uS
MW-1	6.6	---	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	1000
MW-2	6.7	N.D.	---	N.D.	N.D.	N.D.	N.D.	---	1030
MW-3	6.7	N.D.	---	N.D.	N.D.	N.D.	N.D.	---	650
Blank	7.0	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	0.0
Spiked Recovery	---	82.9%	94.6%	84.1%	85.5%	94.2%	91.8%	---	---
Duplicate Spiked Recovery	---	93.5%	92.7%	96.4%	98.9%	93.0%	94.8%	---	---
Detection limit	0.05	50	50	0.5	0.5	0.5	0.5	0.5	10
Method of Analysis		9040	5030 / 8015	3510 / 8015	602	602	602	5520 C & F	120.1

David Duong  
Laboratory Director



# PRIORITY ENVIRONMENTAL LABS

January 21, 1993

PEL # 9301028

AQUA SCIENCE ENGINEERS, INC.  
Project name: Oliver Rubber  
Project location: 1200 65th St., -Emeryville

Attn: Steve DeHope  
Project number: 2571

Sample I.D.: MW-2

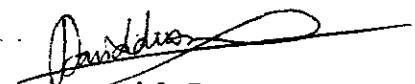
Date Sampled: Jan 18, 1993  
Date Analyzed: Jan 20-21, 1993

Date Submitted: Jan 19, 1993

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.	81.7
Bromomethane	N.D.	-----
Chloroethane	N.D.	-----
Trichlorofluoromethane	N.D.	84.6
1,1-Dichloroethene	N.D.	-----
Methylene Chloride	N.D.	-----
Trans-1,2-Dichloroethene	N.D.	-----
1,1-Dichloroethane	N.D.	-----
Chloroform	N.D.	83.5
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.	92.1
Benzene	N.D.	-----
Dibromochloromethane	N.D.	-----
Toluene	N.D.	-----
Chlorobenzene	N.D.	-----
Ethylbenzene	N.D.	-----
Bromoform	N.D.	98.9
1,1,2,2-Tetrachloroethane	N.D.	-----
Dichlorodifluoromethane	N.D.	-----
Freon 113	N.D.	94.6
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

January 21, 1993

PEL # 9301028

AQUA SCIENCE ENGINEERS, INC.  
Project name: Oliver Rubber  
Project location: 1200 65th St., -Emeryville

Attn: Steve DeHope  
Project number: 2571

Sample I.D.: MW-3

Date Sampled: Jan 18, 1993  
Date Analyzed: Jan 20-21, 1993

Date Submitted: Jan 19, 1993

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.	81.7
Bromomethane	N.D.	-----
Chloroethane	N.D.	-----
Trichlorofluoromethane	N.D.	84.6
1,1-Dichloroethene	N.D.	-----
Methylene Chloride	N.D.	-----
Trans-1,2-Dichloroethene	N.D.	-----
1,1-Dichloroethane	N.D.	-----
Chloroform	N.D.	83.5
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.	92.1
Benzene	N.D.	-----
Dibromochloromethane	N.D.	-----
Toluene	N.D.	-----
Chlorobenzene	N.D.	-----
Ethylbenzene	N.D.	-----
Bromoform	N.D.	98.9
1,1,2,2-Tetrachloroethane	N.D.	-----
Dichlorodifluoromethane	N.D.	-----
Freon 113	N.D.	94.6
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

**C** PEL # 9301028  
 INV # 23325

**istody**

DATE 1-19-93 PAGE 1 OF 1

SAMPLERS (SIGNATURE) [Signature] (PHONE NO.) (510) 820-9391 PROJECT NAME Oliver Rubber NO. 2571  
 ADDRESS 1200 65th St Emeryville

**ANALYSIS REQUEST**

SPECIAL INSTRUCTIONS:

STANDARD TURNAROUND

SAMPLE ID.	DATE	TIME	MATRIX	NO. OF SAMPLES	TPH- GASOLINE (EPA 5030/8015)	TPH- GASOLINE/BTEX (EPA 5030/8015-8020)	TPH DIESEL BTEX (EPA 3510/8015)	PURGABLE AROMATICS (EPA 602/8020)	PURGABLE HALOCARBOHS (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 MET (EPA 1311/1310)	REACTIVITY CORROSIONITY LIGHTABILITY	PH	Conductivity
MW-1	1-18		W	5			X					X						X	X
MW-2	1-18		W	3		X				X								X	X
MW-3	1-18		W	3		X				X								X	X

RELINQUISHED BY: <u>[Signature]</u> (signature)	RECEIVED BY: <u>[Signature]</u> (signature)	RELINQUISHED BY: <u>[Signature]</u> (signature)	RECEIVED BY LABORATORY: <u>[Signature]</u> 8:45 AM (signature)	COMMENTS:
STEVE DeBoe 1-19-93 (printed name) (date)			DAVID DUONG 01/19/93 (printed name) (date)	
Company- A.S.E.	Company-	Company-	Company- PEL	



## **APPENDIX B**

### **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 St., Emeryville, CA

Job # 2571 Date of sampling: 1/18/93

Completed by: Steve DeHope

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): 4.0'

Thickness of floating product if any: None

Depth of well casing in water: 21

Req'd volume of groundwater to be purged before sampling: 16 Gallons

Approximate volume of groundwater purged: 16 Gallons

Type of seal at grade: Portland

Type of cap on the casing: Expanding locking cap

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

Number of samples (containers) collected                     

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: 6.6 Test method: 9040

Conductivity: 1000 Test Method: 120.1

Physical description of water during initial bailing period:  
Slightly cloudy & clearing

Physical description of water sample: Clear

Type of analysis requested: TPH Diesel

BTEX

Oil & Grease

pH

Conductivity

Type of bailer/sampling equipment used: PVC and disposable

Equipment decontamination procedures: TSP Wash, tap water rinse

Disposition of bailed water volume:

Drummed on site.



## WELL SAMPLING FIELD LOG

Aqua Science Engineers, Inc., San Ramon, CA 94583

Project Name: Oliver Rubber Co.

Project Address: 1200 65th St., Emeryville, CA

Job # 2571 Date of sampling: 1/18/93

Completed by: Steve DeHope

Well Number / Designation: MW-2

Top of casing elevation: 19.2'

Total depth of well casing: 24.6' Well diameter: 2"

Depth to water (before sampling): 3.8'

Thickness of floating product if any: N/A

Depth of well casing in water: 20.8'

Req'd volume of groundwater to be purged before sampling: 16 Gallons

Approximate volume of groundwater purged: 16 Gallons

Type of seal at grade: Portland

Type of cap on the casing: Expanding locking cap

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

Number of samples (containers) collected                     

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: 9040

Conductivity: 1030 Test Method: 120.1

Physical description of water during initial bailing period:  
Slightly cloudy & silty

Physical description of water sample: Almost clear

Type of analysis requested: TPH Gas

BTEX

PH

Conductivity

Type of bailer/sampling equipment used: PVC and disposable

Equipment decontamination procedures: TSP wash, tap water rinse

Disposition of bailed water volume:  
Drummed on site.



## WELL SAMPLING FIELD LOG

Aqua Science Engineers, Inc. San Ramon, CA 94583

Project Name: Oliver Rubber Co.  
Project Address: 1200 65th St., Emeryville, CA  
Job # 2571 Date of sampling: 1/18/93  
Completed by: Steve DeHope  
Well Number / Designation: MW-3  
Top of casing elevation: 19.80'  
Total depth of well casing: 24.66' Well diameter: 2"  
Depth to water (before sampling): 3.46'  
Thickness of floating product if any: N/A  
Depth of well casing in water: 21.2'  
Req'd volume of groundwater to be purged before sampling: 16 Gallons  
Approximate volume of groundwater purged: 16 Gallons  
Type of seal at grade: Portland  
Type of cap on the casing: Expanding locking cap  
Is the seal water tight? Yes Is the cap water tight? Yes  
Number of samples (containers) collected \_\_\_\_\_  
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: 9040  
Conductivity: 650 Test Method" 120.1  
Physical description of water during initial bailing period:  
Cloudy & clearing  
Physical description of water sample: Almost clear  
Type of analysis requested: TPH Gas  
BTEX  
pH  
Conductivity  
Type of bailer/sampling equipment used: PVC and disposable  
Equipment decontamination procedures: TSP wash, tap water rinse  
Disposition of bailed water volume:  
Drummed on site.