



Underground Contamination Investigations, Groundwater Consultants, Environmental Engineering

ENVIRONMENTAL
PROTECTION
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STP 376

QUARTERLY
GROUNDWATER SAMPLING REPORT

(sampled October 13, 1995)

RIX INDUSTRIES
6460 Hollis Street
Emeryville, CA

October 25, 1995

ENVIRONMENTAL
PROTECTION
95 OCT 27

TABLE OF CONTENTS

I. INTRODUCTION 1

II. FIELD WORK 5

 Monitoring Well Sampling 5

 Wastewater Generation 6

III. RESULTS OF WATER LEVEL MEASUREMENTS 7

 Shallow Groundwater Flow Direction 7

 Shallow Water Table Hydraulic Gradient 7

 Historical Water Level Measurements 7

IV. SHALLOW GROUNDWATER SAMPLING RESULTS 11

 Laboratory Analysis 11

 Results of Laboratory Analysis 11

ATTACHMENT A -- Well Sampling Logs

ATTACHMENT B -- Analytical Results: Groundwater

I. INTRODUCTION

The site location is the property at 6460 Hollis Street in Emeryville, California. The location of the site is shown in Figure 1.

The current occupant a the property, Rix Industries, has been present for more than twenty years. The current Rix Industries operation involves the construction of compressor parts, as well as compressor performance testing. In conjunction with a previous paint formulation plant that occupied the property prior to Rix Industries, ten (10) underground chemical storage tanks had been present for a number of years on the property. Five (5) of the underground tanks are located beneath the existing Rix Industries fabrication building.

On June 27, 1992, three shallow groundwater monitoring wells were installed on the site (wells MW-1, MW-2 and MW-3) by Hageman-Aguiar, Inc. The locations of the monitoring wells are shown in Figure 2, along with the locations of the ten (10) underground storage tanks. The report of that investigation was issued on July 24, 1992.

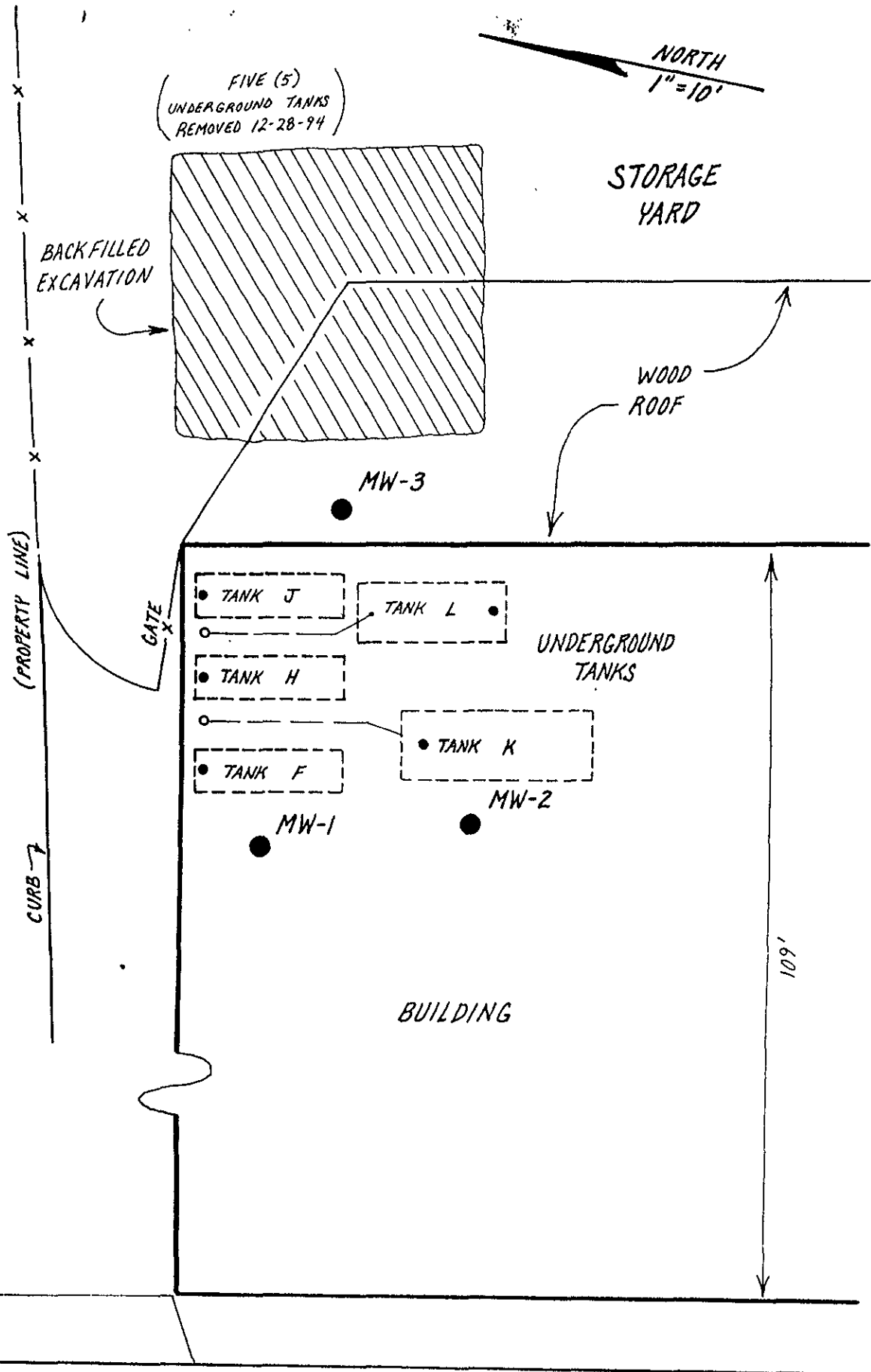
On July 30, 1994, the five (5) underground storage tanks inside the facility were closed-in-place under the direction of Hageman-Aguiar, Inc., in accordance with Alameda County Department of Environmental Health's tank closure requirements. Prior to being filled with a neat cement slurry, each tank had its contents removed.

On the 27th and 28th of December 1994, the five (5) remaining underground storage tanks at the site were removed by Minter & Fahy Construction, of Pacheco, under the direction of



FIGURE 1.
Site Location Map.

SYBASE FACILITY



HOLLIS STREET

FIGURE 2. Site Map.

Hageman-Aguiar, Inc. The tanks were removed in accordance with Alameda County Department of Environmental Health's tank closure requirements. A copy of the Hageman-Aguiar "Tank Closure Report", dated January 27, 1995, was issued to Susan Hugo of the Alameda County's Hazardous Materials Division.

On October 13, 1995, all three on-site monitoring wells were sampled for the laboratory analysis for dissolved petroleum constituents, alcohols and ketones, and volatile organic compounds. This sampling represents the fifth "round" of quarterly sampling, following the soil and groundwater investigation (well installations) previously conducted at the site by Hageman-Aguiar in July 1992.

II. FIELD WORK

Monitoring Well Sampling

On October 13, 1995, groundwater samples were collected from each of the three (3) on-site monitoring wells MW-1, MW-2 and MW-3.

Prior to groundwater sampling, each well was purged by bailing approximately 10 casing volumes of water. Field conductivity, temperature, and pH meters were present on-site during the monitoring well sampling. As the purging process proceeded, the three parameters were monitored. Purging continued until readings appeared to have reasonably stabilized. After the water level in the well had attained 80% or more of the original static water level, a groundwater sample was collected using a clean teflon bailer. The water sample was placed inside appropriate 40 mL VOA vials and 1-liter amber bottles free of any headspace. The samples were immediately placed on ice, then transported under chain-of-custody to the laboratory at the end of the work day.

At the time each monitoring well was sampled, the following information was recorded in the field: 1) depth-to-water prior to purging, using an electrical well sounding tape, 2) identification of any floating product, sheen, or odor prior to purging, using a clear teflon bailer, 3) sample pH, 4) sample temperature, and 5) specific conductance of the sample.

Copies of the well sampling logs are included as Attachment A.

Wastewater Generation

All water removed from the wells during development and purging was drummed and stored on-site until the results of laboratory analyses were obtained. Based upon these results, this water should be collected by a licensed waste hauler and transported as a hazardous liquid waste under proper manifest to an appropriate TSD facility for treatment and disposal. The disposal of wastewater is the responsibility of the property owner (waste generator), and is beyond the scope of work as described in this report.

III. RESULTS OF WATER LEVEL MEASUREMENTS

Shallow Groundwater Flow Direction

Shallow water table elevations were measured on October 13, 1995. These measurements are shown in Table 1. Figure 3 presents a contour map for the shallow groundwater table beneath the site. As shown in this figure, the data from these monitoring wells indicate that the shallow groundwater beneath the site flows in the westerly direction.

Shallow Water Table Hydraulic Gradient

Figure 3 presents the contour map for the shallow groundwater table beneath the site. As shown in this figure, the shallow groundwater table beneath the site appears to be relatively flat, with a calculated hydraulic gradient of $dH/dL = 0.5'/8' = 0.0625$.

Historical Water Level Measurements

Table 2 presents the results of all water level measurements collected between July 7, 1992, and the present time.

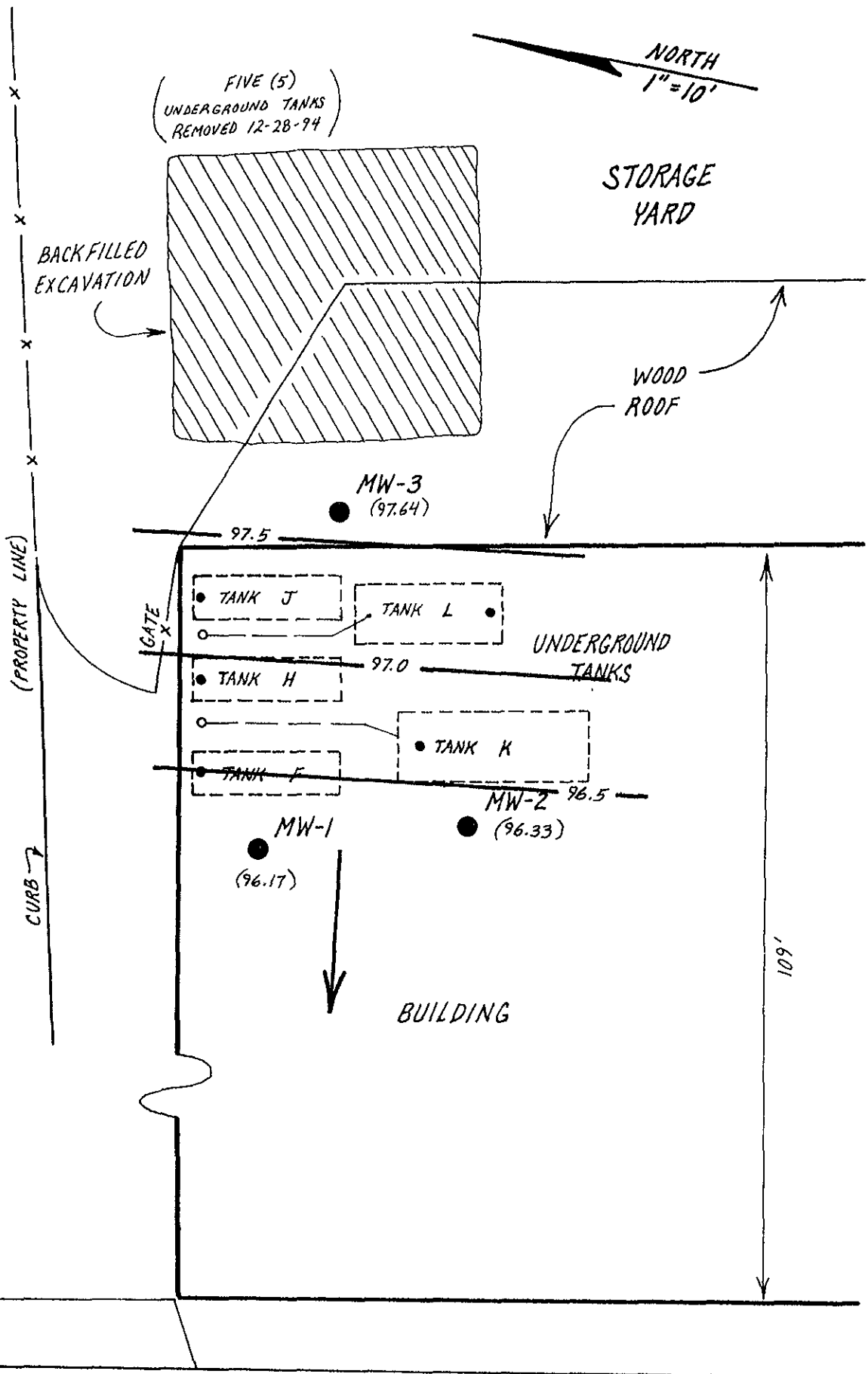
TABLE 1.

**Shallow Water Table Elevations
October 13, 1995**

Well	Top of Casing Elevation (feet)	Depth to Water (feet)	Water Table Elevation (feet)
MW-1	100.00	3.83	96.17
MW-2	100.04	3.71	96.33
MW-3	101.99	4.35	97.64

Datum is the top-of-rim on MW-1 well box set at 100.00 feet.

SYBASE FACILITY



HOLLIS STREET 9

FIGURE 3. Shallow Groundwater Table Contour Map, measured on October 13, 1995.

TABLE 2.

**Historical Water Table Elevations
(feet)**

Well	Date of Measurement								
	7-7-92	8-11-94	11-11-94	2-13-95	6-6-95	10-13-95			
MW-1	96.10	95.87	97.92	97.75	96.93	96.17			
MW-2	96.38	96.08	98.15	97.92	97.09	96.33			
MW-3	97.64	97.65	99.61	99.50	98.60	97.64			
Hydraulic Gradient	0.070	0.080	0.072	0.074	0.071	0.063			
Flow Direction	W	W	W	W	W	W			

IV. SHALLOW GROUNDWATER SAMPLING RESULTS

Laboratory Analysis

All analyses were conducted by a California State DOHS certified laboratory in accordance with EPA recommended procedures (Priority Environmental Lab, Milpitas, CA). All Groundwater samples were analyzed for 1) Total Petroleum Hydrocarbons as Gasoline, Benzene, Toluene, Ethylbenzene, and Total Xylenes; 2) Kerosene, Diesel and Mineral Spirits; 3) Isopropanol, sec-Butanol, Methyl Ethyl Ketone (MEK), Methyl Isobutyl Ketone (MIBK) and Acetone; and, 4) Volatile Organic Compounds.

Results of Laboratory Analysis

Copies of the laboratory certificates for these water sample analyses are included as Attachment B.

Table 3 presents the results of the laboratory analysis of the groundwater samples collected from monitoring wells MW-1, MW-2 and MW-3 for Total Petroleum Hydrocarbons as Gasoline, Benzene, Toluene, Ethylbenzene, Total Xylenes.

Total Petroleum Hydrocarbons as Gasoline were detected in groundwater samples collected from monitoring wells MW-1, MW-2 and MW-3 at concentrations of 960 $\mu\text{g/L}$ (ppb), 1,200 $\mu\text{g/L}$ (ppb) and 1,100 $\mu\text{g/L}$ (ppb), respectively. For this round of sampling, no detectable concentrations of Benzene were found in any of the shallow ground-water samples.

TABLE 3.

Shallow Groundwater Sampling Results

Well	Date	TPH as Gasoline (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethyl-benzene (ug/L)	Total Xylenes (ug/L)
MW-1	07-07-92	680	3.8	ND	38	3.4
	08-11-94	ND	ND	ND	ND	ND
	11-11-94	440	ND	0.8	2.6	6.2
	02-13-95	630	ND	0.5	1.2	3.6
	06-06-95	620	0.5	ND	2.2	9.6
	10-13-95	960	ND	1.7	1.4	7.9
MW-2	07-07-92	1,400	ND	12	69	530
	08-11-94	4,800	ND	1.2	5.6	18
	11-11-94	810	ND	1.2	4.3	11
	02-13-95	1,000	ND	0.9	3.2	6.4
	06-06-95	780	0.9	ND	3.0	13
	10-13-95	1,200	ND	0.6	3.2	9.7
MW-3	07-07-92	9,300	ND	3,600	ND	700
	08-11-94	4,300	ND	10	2.6	10
	11-11-94	920	ND	3.7	3.2	16
	02-13-95	410	ND	1.7	0.5	2.5
	06-06-95	1,100	0.9	0.8	11	26
	10-13-95	1,100	ND	ND	3.2	9.6
Detection Limit		50	0.5	0.5	0.5	0.5

ND = Not Detected

Table 4 presents the results of the laboratory analysis of the groundwater samples collected from monitoring wells MW-1, MW-2 and MW-3 for Extractable Petroleum Hydrocarbons.

As shown in Table 4, Diesel was detected in groundwater samples collected from monitoring wells MW-1, MW-2, and MW-3 at concentrations of 2,600 $\mu\text{g/L}$ (ppb), 350 $\mu\text{g/L}$ (ppb) and 200 $\mu\text{g/L}$ (ppb), respectively. In addition, Mineral Spirits were detected in the groundwater sample from well MW-1 at a concentration of 450 $\mu\text{g/L}$ (ppb).

For this round of groundwater sampling, no detectable concentrations of Kerosene or Motor Oil were detected in any of the shallow groundwater samples.

TABLE 4.

Shallow Groundwater Sampling Results

Well	Date	TPH as Kerosene (ug/L)	TPH as Diesel (ug/L)	TPH as Mineral Spirits (ug/L)	Oil & Grease (ug/L)
MW-1	07-07-92	<u>6,100</u>	6,100	6,400	14
	08-11-94	960	590	ND	---
	11-11-94	ND	1,000	190	---
	02-13-95	ND	1,400	310	---
	06-06-95	ND	1,600	58	---
	10-13-95	ND	2600	450	---
MW-2	07-07-92	17,000	17,000	20,000	19
	08-11-94	490	320	ND	---
	11-11-94	ND	620	160	---
	02-13-95	ND	810	350	---
	06-06-95	ND	960	ND	---
	10-13-95	ND	350	ND	---
MW-3	07-07-92	20,000	20,000	21,000	28
	08-11-94	470	310	ND	---
	11-11-94	ND	ND	ND	---
	02-13-95	ND	900	370	---
	06-06-95	ND	1,200	ND	---
	10-13-95	ND	200	ND	---
Detection Limit		50	50	50	50

ND = Not Detected

Table 5 presents the results of the laboratory analysis of the groundwater samples collected from monitoring wells MW-1, MW-2 and MW-3 for Acetone, Isopropanol, Methyl Ethyl Ketone, Methyl Isobutyl Ketone and Sec-butanol.

Acetone was detected in groundwater samples collected from monitoring wells MW-1, MW-2, and MW-3 at concentrations of 220 $\mu\text{g/L}$ (ppb), 62 $\mu\text{g/L}$ (ppb), and 340 $\mu\text{g/L}$ (ppb), respectively.

Methyl Ethyl Ketone was detected in groundwater samples collected from monitoring wells MW-1, MW-2 and MW-3 at concentrations of 700 $\mu\text{g/L}$ (ppb), 6,100 $\mu\text{g/L}$ (ppb) and 6,600 $\mu\text{g/L}$ (ppb), respectively.

For this round of groundwater sampling, no detectable concentrations of Isopropanol, Methyl Isobutyl Ketone or Sec-butanol were detected in any of the groundwater samples collected from monitoring wells MW-1, MW-2 and MW-3.

TABLE 5.

**Shallow Groundwater Sampling Results
Alcohols & Ketones**

Monitoring Well	Date	Acetone (ug/L)	Iso-Propanol (ug/L)	Methyl Ethyl Ketone (ug/L)	Methyl Isobutyl Ketone (ug/L)	Sec-Butanol (ug/L)
MW-1	07-07-92	ND	ND	ND	ND	ND
	08-11-94	210	9,100	230	180	710
	11-11-94	2,700	17,000	1,500	420	ND
	02-13-95	610	6,400	1,300	600	ND
	06-06-95	76	ND	97,000	ND	ND
	10-13-95	220	ND	700	ND	ND
MW-2	07-07-92	ND	ND	ND	ND	ND
	08-11-94	ND	410	ND	ND	90
	11-11-94	1,100	4,600	18,000	360	ND
	02-13-95	2,500	4,900	22,000	ND	ND
	06-06-95	ND	ND	59,000	ND	ND
	10-13-95	62	ND	6,100	ND	ND
Detection Limit		50 to 400	100 to 1,000	50 to 1,000	50 to 500	50 to 500

ND = Not Detected

TABLE 5. (Continued)

Shallow Groundwater Sampling Results
Alcohols & Ketones

Monitoring Well	Date	Acetone (ug/L)	Iso-Propanol (ug/L)	Methyl Ethyl Ketone (ug/L)	Methyl Isobutyl Ketone (ug/L)	Sec-Butanol (ug/L)
MW-3	07-07-92	ND	ND	ND	ND	ND
	08-11-94	ND	9,400	370	250	820
	11-11-94	810	6,700	40,000	22,000	ND
	02-13-95	1,300	5,800	19,000	4,500	ND
	06-06-95	160	ND	32,000	ND	ND
	10-13-95	340	ND	6,600	ND	ND
Detection Limit		50 to 400	100 to 1,000	50 to 1,000	50 to 500	50 to 500

ND = Not Detected

Table 6 presents the results of the laboratory analysis of the groundwater samples collected from monitoring wells MW-1, MW-2 and MW-3 for Halogenated Volatile Organic Compounds.

1,2-Dichloroethene was detected in the groundwater samples collected from monitoring wells MW-1, and MW-2 at concentrations of 5.1 $\mu\text{g/L}$ (ppb), and 14 $\mu\text{g/L}$ (ppb), respectively.

Tetrachloroethene was detected in the groundwater sample collected from monitoring well MW-2 at a concentration of 14 $\mu\text{g/L}$ (ppb).

Trichloroethene was detected in groundwater samples collected from monitoring wells MW-2 and MW-3 at concentrations of 11 $\mu\text{g/L}$ (ppb), and 53 $\mu\text{g/L}$ (ppb), respectively.

Chloroform was detected in the groundwater sample collected from monitoring wells MW-1, MW-2 and MW-3 at concentrations of 1.9 $\mu\text{g/L}$ (ppb), 4.4 $\mu\text{g/L}$ (ppb) and 17 $\mu\text{g/L}$ (ppb), respectively.

For this round of groundwater sampling, no detectable concentrations of Trichlorofluoromethane, 1,1-Dichloroethane, 1,1-Dichloroethene, 1,1,1-Trichloroethane or Vinyl Chloride were found in the groundwater samples collected from monitoring wells MW-1, MW-2 and MW-3.

TABLE 6.

**Shallow Groundwater Sampling Results
Volatile Organic Compounds**

Well	Date	EPA Method	Trichloro-fluoromethane (ug/L)	1,1-Dichloro-ethane (ug/L)	1,1-Dichloro-ethene (ug/L)	(Total) 1,2-Dichloro-ethene (ug/L)
MW-1	07-08-92	601	ND	36	ND	ND
	11-11-94	8240	-	33	ND	ND
	02-13-95	601	9.8	32	1.0	8.5
	06-06-95	601	4.9	12	ND	2.7
	10-13-95	601	ND	ND	ND	5.1
MW-2	07-08-92	601	ND	22	ND	99
	11-11-94	8240	-	17	ND	45
	02-13-95	601	3.6	9.6	2.0	11
	06-06-95	601	2.7	8.0	ND	6.9
	10-13-95	601	ND	ND	ND	14
MW-3	07-08-92	601	ND	30	ND	630
	11-11-94	8240	-	47	29	327
	02-13-95	601	30	52	48	6.6
	06-06-95	601	17	16	26	4.9
	10-13-95	601	ND	ND	ND	ND
Detection Limit			0.5	1.0 to 5.0	1.0 to 5.0	0.5 to 5.0

ND = Not Detected

TABLE 6. (Continued)

Shallow Groundwater Sampling Results
Volatile Organic Compounds

Well	Date	EPA Method	Tetrachloroethene (ug/L)	1,1,1-Trichloroethane (ug/L)	Trichloroethene (ug/L)	Vinyl Chloride (ug/L)
MW-1	07-08-92	601	ND	ND	ND	ND
	11-11-94	8240	ND	ND	ND	ND
	02-13-95	601	ND	0.7	15	ND
	06-06-95	601	ND	ND	4.6	ND
	10-13-95	601	ND	ND	ND	ND
MW-2	07-08-92	601	52	ND	21	46
	11-11-94	8240	34	ND	20	ND
	02-13-95	601	49	4.8	41	ND
	06-06-95	601	20	ND	33	ND
	10-13-95	601	14	ND	11	ND
MW-3	07-08-92	601	2,200	81	300	ND
	11-11-94	8240	110	12	290	67
	02-13-95	601	54	28	140	ND
	06-06-95	601	34	ND	63	ND
	10-13-95	601	ND	ND	53	ND
Detection Limit			1.0 to 5.0	1.0 to 5.0	1.0 to 5.0	1.0 to 10

ND = Not Detected

TABLE 6. (Continued)

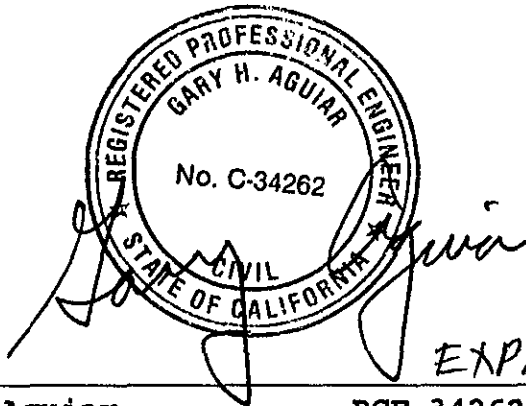
**Shallow Groundwater Sampling Results
Volatile Organic Compounds**

Well	Date	EPA Method	1,2-Dichloroethane (ug/L)	Chloroform (ug/L)	Bromoform (ug/l)	Other Organics (ug/l)
MW-1	07-08-92	601	ND	ND	ND	ND
	11-11-94	8240	ND	ND	ND	ND
	02-13-95	601	1.1	1.8	ND	ND
	06-06-95	601	ND	1.5	ND	ND
	10-13-95	601	ND	1.9	ND	ND
MW-2	07-08-92	601	ND	ND	ND	ND
	11-11-94	8240	ND	ND	ND	ND
	02-13-95	601	3.2	2.7	ND	ND
	06-06-95	601	ND	4.9	ND	ND
	10-13-95	601	ND	4.4	ND	ND
MW-3	07-08-92	601	ND	ND	ND	ND
	11-11-94	8240	ND	ND	ND	ND
	02-13-95	601	8.5	4.3	ND	ND
	06-06-95	601	ND	3.8	ND	ND
	10-13-95	601	ND	17	32	ND
Detection Limit			0.5 to 5.0	1.0 to 5.0	1.0 to 5.0	1.0 to 10

ND = Not Detected

QUARTERLY GROUNDWATER SAMPLING REPORT
RIX INDUSTRIES
6460 Hollis Street, Emeryville, California

October 25, 1995



EXP. 9-30-99

Gary Aguiar

RCE 34262

Mark Hainsworth
Mark Hainsworth Staff Engineer

ATTACHMENT A

WELL SAMPLING LOGS

WELL SAMPLING LOG

Project/No. Rix Industries

Page 1 of 3

Site Location Emeryville CA

Date 10/13/95

Well No. MW-1

Weather Sunny Mid 80's

Time Began _____
Completed _____

Sampling Personnel M Hainsworth

EVACUATION DATA

Description of Measuring Point (MP) Well Box @ Grade

Total Sounded Depth of Well Below MP 14.79

- Depth to Water Below MP 3.83

Diameter
of Casing 2"

= Water Column in Well 10.96

Gallons in Casing 1.8 + Annular Space (x10) = Total Gallons 18
(30% porosity)

Gallons Pumped Prior to Sampling 20

Evacuation Method Teflon Bailor

SAMPLING DATA / FIELD PARAMETERS

Inspection for Free Product: Slight Sheen, Organic Odor, Low-Med Turb
(thickness to 0.1 inch, if any)

Time	<u>11:25</u>	<u>11:32</u>	<u>11:38</u>	<u>11:45</u>
Gals Removed	<u>5</u>	<u>10</u>	<u>15</u>	<u>20</u>
Temperature	<u>68.6</u>	<u>68.6</u>	<u>68.4</u>	<u>68.4</u>
Conductivity	<u>750</u>	<u>840</u>	<u>760</u>	<u>730</u>
pH	<u>6.20</u>	<u>6.20</u>	<u>6.25</u>	<u>6.31</u>
Color / Odor	<u>Gray, Organic Odo-</u>	<u>Gray, Organic Odo-</u>	<u>Gray, Organic Odo-</u>	<u>Gray, Organic Odo-</u>
Turbidity	<u>Low-Med</u>	<u>Low-Med</u>	<u>Low-Med</u>	<u>Low-Med</u>

Comments: Excellent Recharge

WELL SAMPLING LOG

Project/No. Rix Industries

Page 2 of 3

Site Location Emeryville CA

Date 10/13/15

Well No. MW-2

Time Began _____

Weather Sunny Mid 80's

Completed _____

Sampling Personnel M Hainsworth

EVACUATION DATA

Description of Measuring Point (MP) Well Box @ Grade

Total Sounded Depth of Well Below MP 14.98

Diameter of Casing 2"

- Depth to Water Below MP 3.71

= Water Column in Well 11.27

Gallons in Casing 1.8 + Annular Space (x10) = Total Gallons 18.0
(30% porosity)

Gallons Pumped Prior to Sampling 20

Evacuation Method Teflon Bailer

SAMPLING DATA / FIELD PARAMETERS

Inspection for Free Product: Slight Sheen, Organic Odor, Low-Med Turb
(thickness to 0.1 inch, if any)

Time	<u>11:02</u>	<u>11:07</u>	<u>11:12</u>	<u>11:18</u>
Gals Removed	<u>5</u>	<u>10</u>	<u>15</u>	<u>20</u>
Temperature	<u>68.4</u>	<u>68.5</u>	<u>68.2</u>	<u>68.4</u>
Conductivity	<u>790</u>	<u>800</u>	<u>590</u>	<u>550</u>
pH	<u>6.26</u> Lt Gray	<u>6.30</u> Lt Gray	<u>6.40</u> Lt Gray	<u>6.43</u> Lt Gray
Color / Odor	<u>Organic Odor</u>	<u>Organic Odor</u>	<u>Organic Odor</u>	<u>Organic Odor</u>
Turbidity	<u>Low-Med</u>	<u>Med</u>	<u>Med</u>	<u>Med</u>

Comments: Excellent Recharge

WELL SAMPLING LOG

Project/No. Rix Industries

Page 3 of 3

Site Location Emeryville CA

Date 10/13/95

Well No. MW-3

Weather Sunny Mid 80's

Time Began _____
Completed _____

Sampling Personnel M. Hainsworth

EVACUATION DATA

Description of Measuring Point (MP) Well Box @ Grade

Total Sounded Depth of Well Below MP 17.20

- Depth to Water Below MP 4.34

Diameter
of Casing 2"

= Water Column in Well 12.86

Gallons in Casing 2.1 + Annular Space x10 = Total Gallons 2
(30% porosity)

Gallons Pumped Prior to Sampling 20

Evacuation Method Teflon Bailer

SAMPLING DATA / FIELD PARAMETERS

Inspection for Free Product: Slight Sheen, Organic Odor, Low Turb
(thickness to 0.1 inch, if any)

	<u>11:52</u>	<u>12:00</u>	<u>12:06</u>	<u>12:14</u>
Time				
Gals Removed	<u>5</u>	<u>10</u>	<u>15</u>	<u>20</u>
Temperature	<u>68.6</u>	<u>68.7</u>	<u>68.6</u>	<u>68.7</u>
Conductivity	<u>830</u>	<u>850</u>	<u>870</u>	<u>840</u>
pH	<u>6.28</u>	<u>6.32</u>	<u>6.32</u>	<u>6.35</u>
Color / Odor	<u>Gray Organic Odor</u>	<u>Gray Organic Odor</u>	<u>Gray Organic Odor</u>	<u>Gray, Organic Odor</u>
Turbidity	<u>Low</u>	<u>Mod</u>	<u>Mod</u>	<u>Mod</u>

Comments: Excellent Recharge.

ATTACHMENT B

ANALYTICAL RESULTS: GROUNDWATER



PRIORITY ENVIRONMENTAL LABS

Precision Environmental Analytical Laboratory

October 18, 1995

PEL # 9510036

HAGEMAN - AGUIAR, INC.

Attn: Mark Hainsworth

Re: Three water samples for Gasoline/BTEX and TEPH analyses.

Project name: Rix Industries

Project location: 6460 Hollis St., - Emeryville, CA.

Date sampled: Oct 13, 1995


Date submitted: Oct 13, 1995

Date extracted: Oct 13-17, 1995

Date analyzed: Oct 13-17, 1995

RESULTS:

SAMPLE I.D.	Kerosene (ug/L)	Gasoline (ug/L)	Diesel (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethyl Benzene (ug/L)	Total Xylene (ug/L)	Motor Oil (mg/L)	Mineral Spirits (ug/L)
MW-1	N.D.	960	2600	N.D.	1.7	1.4	7.9	N.D.	450
MW-2	N.D.	1200	350	N.D.	0.6	3.2	9.7	N.D.	N.D.
MW-3	N.D.	1100	200	N.D.	N.D.	3.2	9.6	N.D.	N.D.
Blank	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Spiked Recovery	---	85.6%	90.7%	99.8%	86.4%	109.7%	94.5%	---	---
Detection limit	50	50	50	0.5	0.5	0.5	0.5	0.5	50
Method of Analysis	3510 / 8015	5030 / 8015	3510 / 8015	602	602	602	602	3510 / 8015	3510 / 8015


 David Duong
 Laboratory Director



PRIORITY ENVIRONMENTAL LABS

Precision Environmental Analytical Laboratory

October 18, 1995

PEL # 9510036

HAGEMAN - AGUIAR, INC.

Attn: Mark Hainsworth

Re: Three water samples for Acetone, Isopropanol, MEK, MIBK, and Sec-Butanol analyses.

Project name: Rix Industries

Project location: 6460 Hollis St., - Emeryville, CA.

Date sampled: Oct 13, 1995

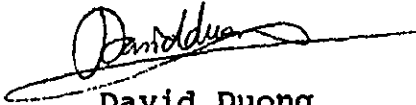
Date submitted: Oct 13, 1995

Date extracted: Oct 13-17, 1995

Date analyzed: Oct 13-17, 1995

RESULTS:

SAMPLE I.D.	Acetone (ug/L)	Isopropanol (mg/L)	MEK (mg/L)	MIBK (mg/L)	Sec-Butanol (mg/L)
MW-1	220	N.D.	0.7	N.D.	N.D.
MW-2	62	N.D.	6.1	N.D.	N.D.
MW-3	340	N.D.	6.6	N.D.	N.D.
Blank	N.D.	N.D.	N.D.	N.D.	N.D.
Detection limit	50	0.5	0.5	0.5	0.5
Method of Analysis	5030 / 8015	5030 / 8015	5030 / 8015	5030 / 8015	5030 / 8015


David Duong
Laboratory Director



PRIORITY ENVIRONMENTAL LABS

Precision Environmental Analytical Laboratory

October 18, 1995

PEL # 9510036

HAGEMAN - AGUIAR, INC.

Project name: Rix Industries Project location: 6460 Hollis St, Emeryville, CA

Sample I.D.: MW-1

Date Sampled: Oct 13, 1995
Date Analyzed: Oct 14-17, 1995

Date Submitted: Oct 13, 1995

Method of Analysis: EPA 601

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.	-----
Trichlorofluoromethane	N.D.	-----
1,1-Dichloroethene	N.D.	-----
Methylene Chloride	N.D.	-----
1,2-Dichloroethene (TOTAL)	5.1	-----
1,1-Dichloroethane	N.D.	-----
Chloroform	1.9	91.9
1,1,1-Trichloroethane	N.D.	-----
Carbon Tetrachloride	N.D.	-----
1,2-Dichloroethane	N.D.	-----
Trichloroethene	N.D.	82.3
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.	88.2
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.	86.2


David Duong

Laboratory Director



PRIORITY ENVIRONMENTAL LABS

Precision Environmental Analytical Laboratory

October 18, 1995

PEL # 9510036

HAGEMAN - AGUIAR, INC.

Project name: Rix Industries Project location: 6460 Hollis St, Emeryville, CA

Sample I.D.: MW-2

Date Sampled: Oct 13, 1995
Date Analyzed: Oct 14-17, 1995

Date Submitted: Oct 13, 1995

Method of Analysis: EPA 601

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.	-----
Trichlorofluoromethane	N.D.	-----
1,1-Dichloroethene	N.D.	-----
Methylene Chloride	N.D.	-----
1,2-Dichloroethene (TOTAL)	14	-----
1,1-Dichloroethane	N.D.	-----
Chloroform	4.4	91.9
1,1,1-Trichloroethane	N.D.	-----
Carbon Tetrachloride	N.D.	-----
1,2-Dichloroethane	N.D.	-----
Trichloroethene	11	82.3
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	14	88.2
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.	86.2

David Duong
Laboratory Director



PRIORITY ENVIRONMENTAL LABS

Precision Environmental Analytical Laboratory

October 18, 1995

PEL # 9510036

HAGEMAN - AGUIAR, INC.

Project name: Rix Industries Project location: 6460 Hollis St, Emeryville, C

Sample I.D.: MW-3

Date Sampled: Oct 13, 1995
Date Analyzed: Oct 14-17, 1995

Date Submitted: Oct 13, 1995

Method of Analysis: EPA 601

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.	-----
Trichlorofluoromethane	N.D.	-----
1,1-Dichloroethene	N.D.	-----
Methylene Chloride	N.D.	-----
1,2-Dichloroethene (TOTAL)	N.D.	-----
1,1-Dichloroethane	N.D.	-----
Chloroform	17	91.9
1,1,1-Trichloroethane	N.D.	-----
Carbon Tetrachloride	N.D.	-----
1,2-Dichloroethane	N.D.	-----
Trichloroethene	53	82.3
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.	88.2
Dibromochloromethane	N.D.	-----
Chlorobenzene	N.D.	-----
Bromoform	32	-----
1,1,2,2-Tetrachloroethane	N.D.	-----
1,3-Dichlorobenzene	N.D.	-----
1,4-Dichlorobenzene	N.D.	-----
1,2-Dichlorobenzene	N.D.	86.2

David Duong
Laboratory Director

PEL # 9510036

INV # 2642T

CHAIN OF CUSTODY

PROJECT NAME AND ADDRESS: <i>Rix Industries</i> <i>6460 Hollis St.</i> <i>Emeryville CA</i>			SAMPLER (Signature) <i>Mark Haimsoth</i>		ANALYSIS REQUESTED <i>Gas / BTXE</i> <i>TEPH (including Arsenic / Boron)</i> <i>GOI</i> <i>Acetone, MEK, MIBK</i> <i>Isopropyl, Sec-Butanol</i>						
			HAGEMAN - AGUIAR, INC. 3732 Mt. Diablo Blvd., Suite 372 Lafayette, CA 94549 (415)284-1661 (415)284-1664 (FAX)								
CROSS REFERENCE NUMBER	DATE	TIME	SOIL	WATER	STATION LOCATION	REMARKS					
<i>MW-1</i>	<i>10/13/95</i>		<i>\</i>	<i>X</i>	<i>Monitoring well # 1</i>	<i>X</i>	<i>X</i>	<i>X</i>	<i>X</i>	<i>X</i>	
<i>MW-2</i>	<i>10/13/95</i>			<i>X</i>	<i>↓ # 2</i>	<i>X</i>	<i>X</i>	<i>X</i>	<i>X</i>	<i>X</i>	
<i>MIN-3</i>	<i>10/13/95</i>			<i>X</i>	<i>↓ # 3</i>	<i>X</i>	<i>X</i>	<i>X</i>	<i>X</i>	<i>X</i>	
RELINQUISHED BY: (Signature) <i>Mark Haimsoth</i>	DATE <i>10/13/95</i>	TIME <i>15:03</i>	RECEIVED BY: (Signature)			DATE	TIME				
RELINQUISHED BY: (Signature)	DATE	TIME	RECEIVED BY: (Signature)			DATE	TIME				
RELINQUISHED BY: (Signature)	DATE	TIME	RECEIVED BY: (Signature)			DATE	TIME				
RELINQUISHED BY: (Signature)	DATE	TIME	RECEIVED FOR LABORATORY BY: (Signature) <i>[Signature]</i>			DATE <i>10/13/95</i>	TIME <i>15:03</i>				