HAGEMAN-AGUIAR, INC.
Underground Contamination Investigations, Groundwater Consultants, Environmental Engineering

QUARTERLY
GROUNDWATER SAMPLING REPORT

(sampled August 16, 1994)

BERNITA LESKOWSKI PROPERTY
1701 Webster Street
Alameda, CA

9/21/94
Procure rationale from consultant for fluctuating concentrat.
-JS

August 25, 1994

3732 Mt. Diablo Blvd. Suite 372 Lafayette, California 94549 (510) 284-1661 FAX (510) 284-1664

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I. INTRODUCTION

The subject site is the Bernita Leskowski property located at 1701 Webster Street in Alameda, California. The location of the site is shown on Figure 1 (site location map).

On May 2 and 3, 1989, one 500-gallon and two 550-gallon underground storage tanks were removed from the site. Petroleum hydrocarbon contamination was detected in soil samples collected from the tank excavation and the excavated soil pile. Due to the locations of nearby structures and utilities, some petroleum-contaminated soil was left in place. Following the underground storage tank removals, Blymyer Engineers installed three shallow groundwater monitoring wells and subsequently sampled the wells on November 9, 1989. The laboratory results indicated the presence of Gasoline at concentrations of up to 360 μg/L (ppb) and Benzene at "trace" concentrations of up to 0.71 μg/L (ppb).

Recent correspondence from the Alameda County Environmental Health Department stated that analysis for Total Petroleum Hydrocarbon as Diesel may be discontinued for future "rounds" of sampling at the site (Ref. Attachment A - August 16, 1994 letter from Ms. Juliet Shin to Ms. Bernita Leskowski).

On August 16, 1994, all three shallow groundwater monitoring wells were sampled by Hageman-Aguiar, Inc., as a part of the continued quarterly shallow groundwater sampling at the site.

FIGURE 1.
Site Location Map.

II. FIELD WORK

Monitoring Well Sampling

On August 16, 1994, groundwater samples were collected from the three monitoring wells MW-1, MW-2 and MW-3. The locations of the monitoring wells are shown on Figure 2 (site map).

Prior to groundwater sampling, each well was purged by pumping several casing volumes of water using a stainless steel air-lift pump. 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 crushed 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 B.

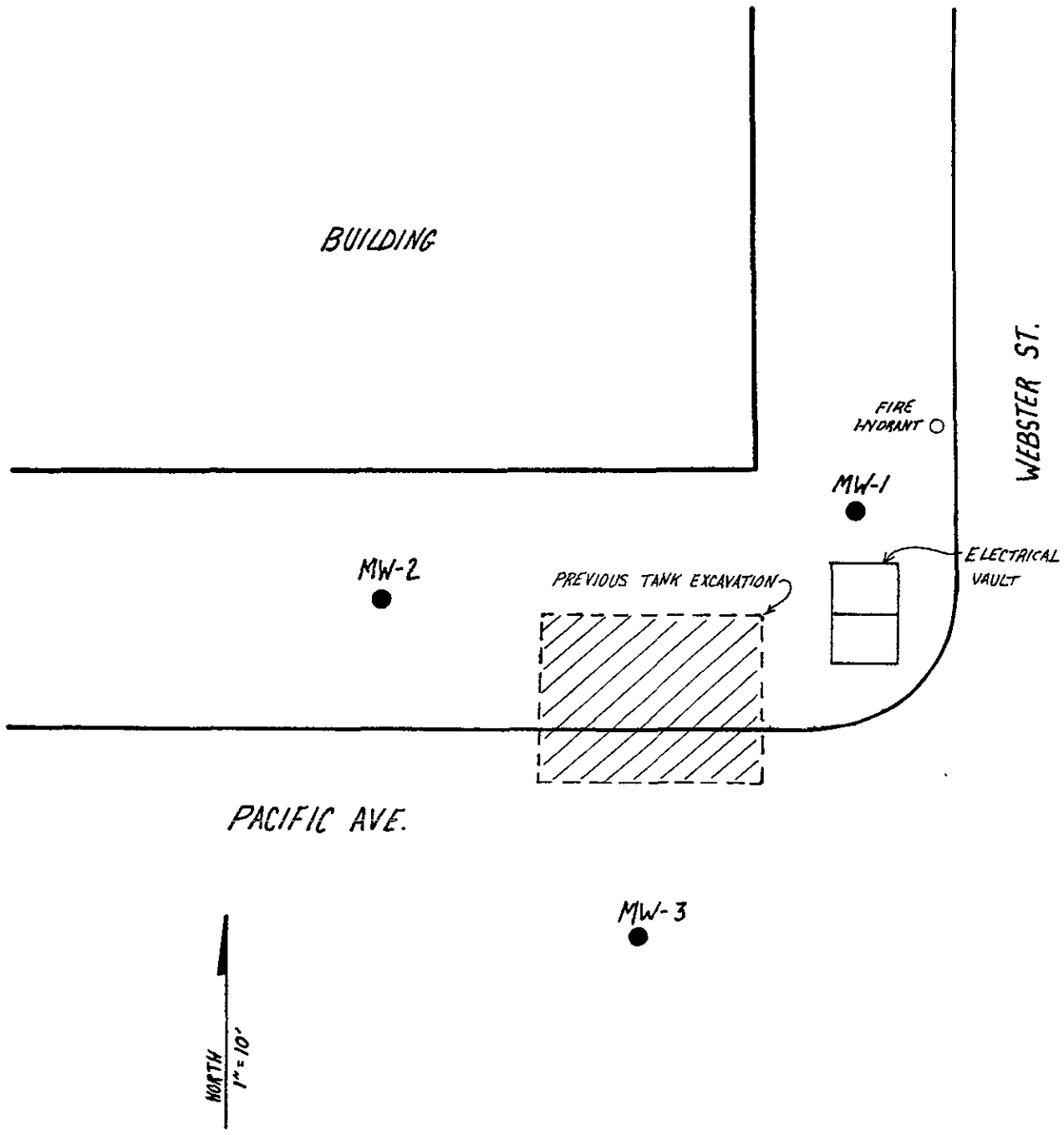


FIGURE 2.
Site Map.

Wastewater Generation

All water removed from the wells during purging is drummed and stored on-site until the results of the laboratory results were obtained. Based upon these results, the water should be sewered (if possible) as a non-hazardous liquid waste in accordance with local sewering agency permit requirements, or else the wastewater should be transported under proper manifest to an appropriate TSD facility for treatment and disposal. The ultimate disposition of the 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.

Sallow water table elevations were measured on August 16, 1994. 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 the three monitoring wells indicate that the shallow groundwater flow was in the westerly direction during this most recent sampling event.

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 = 0.1'/10.2' = 0.0098.

Historical Water Level Measurements

Table 2 presents the results of all water level measurements collected between June 17, 1993, and the present time.

TABLE 1.

Shallow Water Table Elevations
August 16, 1994

Well	Top of Casing Elevation (feet)	Depth to Water (feet)	Water Table Elevation (feet)
MW-1	15.23	6.96	8.27
MW-2	14.96	7.00	7.96
MW-3	15.05	6.98	8.07

Based upon National Geodetic Survey Monument WEB PAC,
located at NE corner Webster Street and Pacific Street
Elev = 14.055 feet MSL (May 1990)

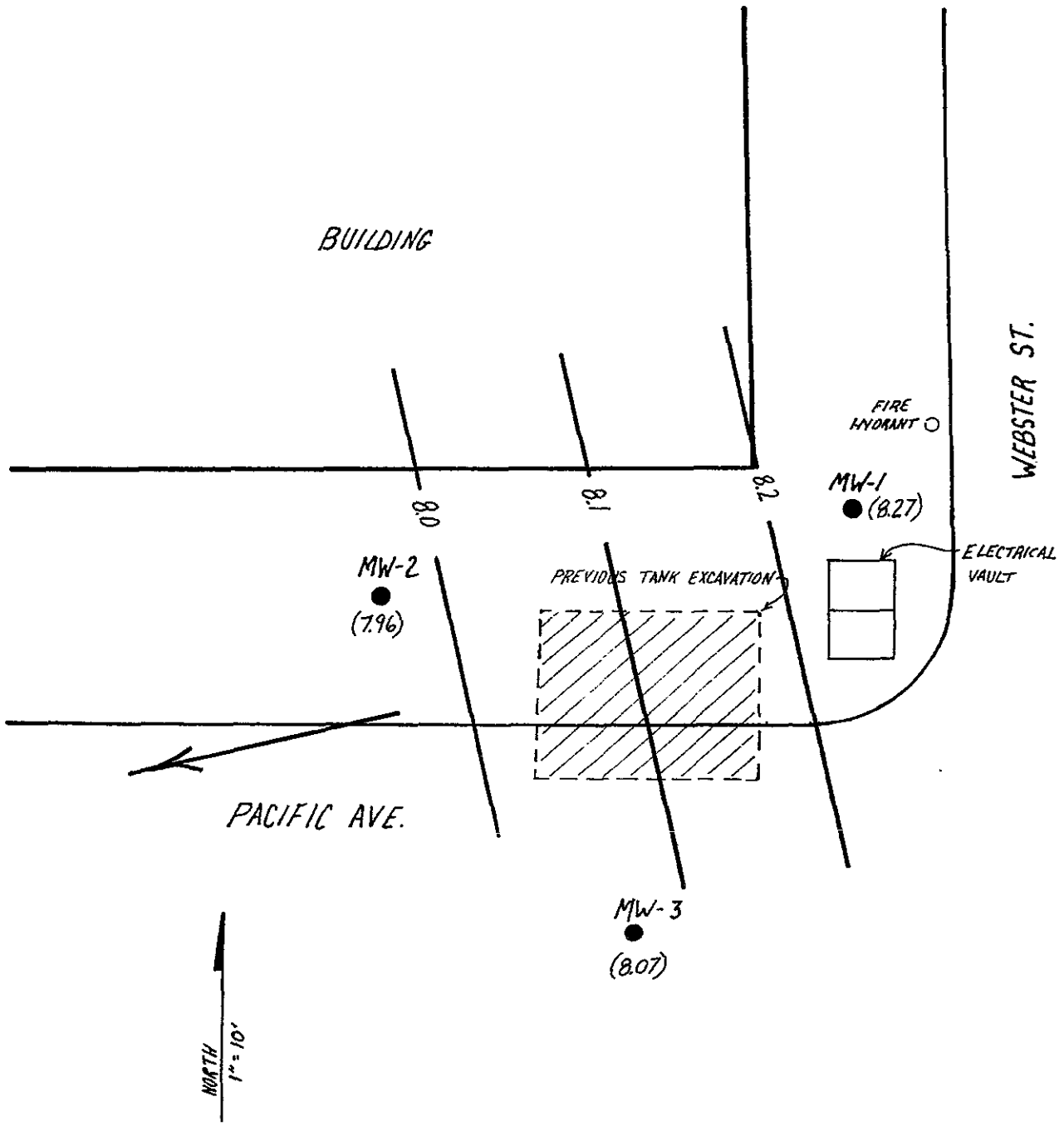


FIGURE 3. Shallow Groundwater Table Contour Map, measured August 16, 1994.

TABLE 2.
Historical Water Table Elevations
(feet)

Well	Date of Measurement								
	6-17-93	9-23-93	12-28-93	4-19-94	8-16-94				
MW-1	9.11	8.24	8.18	8.60	8.27				
MW-2	8.84	7.92	7.84	8.39	7.96				
MW-3	8.94	8.04	7.95	8.58	8.07				
Flow Direction	W	W	W	NW	W				
Hydraulic Gradient	0.0091	0.011	0.011	0.0084	0.0098				

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 Labs, Milpitas, CA).

All Groundwater samples were analyzed for 1) Total Petroleum Hydrocarbons as Diesel (EPA method 8015), 2) Total Petroleum Hydrocarbons as Gasoline (EPA method 8015), and 3) Benzene, Toluene, Ethylbenzene, and Total Xylenes (EPA method 602).

Results of Laboratory Analysis

Table 3 presents the results of the laboratory analysis of the groundwater samples collected from the monitoring wells. For this most recent round of quarterly sampling, **no detectable concentrations of either Gasoline, Benzene, Toluene, Ethylbenzene, or Xylenes were found in any of the shallow groundwater samples collected from wells MW-1, MW-2 and MW-3.**

As shown in Table 3, **no detectable concentrations of Total Petroleum Hydrocarbons as Diesel were detected in any of the shallow groundwater samples.**

A copy of the laboratory certificate for the water sample analyses are included in Attachment C.

TABLE 3.

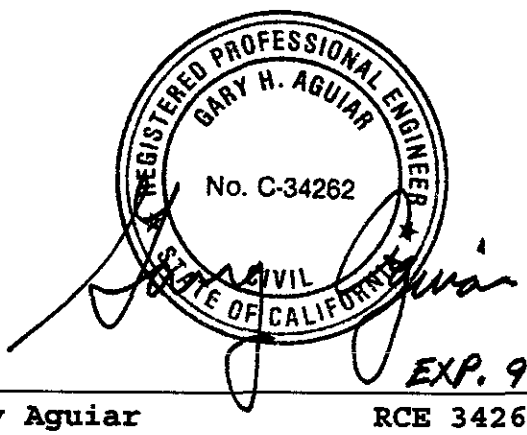
Shallow Groundwater Sampling Results

Well	Date	TPH as Gasoline (ug/L)	TPH as Diesel (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethyl-benzene (ug/L)	Total Xylenes (ug/L)
MW-1	11-09-89	**360**	---	**0.71**	ND	**0.81**	**1.4**
	06-17-93	ND	**53**	ND	ND	ND	ND
	09-23-93	ND	ND	ND	ND	ND	ND
	12-28-93	ND	ND	ND	ND	ND	ND
	04-19-94	**190**	ND	**5.6**	**5.1**	**4.2**	**13**
	08-16-94	ND	ND	ND	ND	ND	ND
MW-2	11-09-89	**71**	---	ND	**0.85**	ND	ND
	06-17-93	ND	ND	ND	ND	ND	ND
	09-23-93	ND	ND	ND	ND	ND	ND
	12-28-93	**92**	ND	**0.7**	**1.1**	**1.7**	**5.4**
	04-19-94	**120**	ND	**2.2**	**1.8**	**1.1**	**8.7**
	08-16-94	ND	ND	ND	ND	ND	ND
MW-3	11-09-89	**320**	---	**0.58**	ND	**1.2**	**2.1**
	06-17-93	ND	ND	ND	ND	ND	ND
	09-23-93	ND	ND	ND	ND	ND	ND
	12-28-93	ND	ND	ND	ND	ND	ND
	04-19-94	**380**	ND	**3.0**	**4.3**	**4.7**	**17**
	08-16-94	ND	ND	ND	ND	ND	ND
Detection Limit		50	50	0.5	0.5	0.5	0.5

ND = not detected

GROUNDWATER SAMPLING REPORT
BERNITA LESKOWSKI PROPERTY
1701 Webster Street, Alameda, CA

August 25, 1994



EXP. 9-30-95

Gary Aguiar **RCE 34262**

8/25/94

Gerard F. Aarons **Geologist**

ATTACHMENT A

CORRESPONDENCE

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

RAFAT A. SHAHID, Assistant Agency Director

August 16, 1994

Alameda County CC 4580
Health Care Services Agency
Dept. Of Environmental Health
1131 Harbor Bay Pkwy 2nd Flr.
Alameda, CA 94502-6577

Ms. Bernita Leskowski
6319 Castle Drive
Oakland, CA 94611

STID 3804

RE: Investigations at 1701 Webster St., Alameda, California

Dear Ms. Leskowski,

This office has received Hageman-Aguiar's (HA) letter, dated June 6, 1994, and HA's Quarterly Ground water Monitoring Report, dated April 26, 1994. As proposed in the letter and report, the analysis for Total Petroleum Hydrocarbons as diesel may be discontinued at the site.

In addition to the above proposal, HA has proposed to forgo delineating the extent of soil and ground water contamination, and to continue ground water monitoring. Quarterly ground water monitoring is acceptable at this time, however, if benzene concentrations above the Maximum Contaminant Level of 1 parts per billion (ppb) persist, further work may be required.

Although ground water samples have not identified exceedingly high levels of contaminants, the depth to the water table has generally been shallower than the depths at which elevated levels of soil contamination were observed. Up to 6,000 parts per million (ppm) Total Petroleum Hydrocarbons as gasoline (TPHg) have been identified in the former tank pits at 10 feet below ground surface (bgs). Elevated levels of TPHg were identified in soil samples collected from Well MW-2 and MW-3 at 7.5 to 8 feet bgs (up to 2,300 ppm). However, the water table has generally been noted to be between 6 and 7 feet bgs in the past sampling quarters, except for in the initial sampling event in 1989, when the water table was at 8 feet bgs. This office is concerned that higher contaminant concentrations will be observed if the water table decreases to greater depths.

If contaminant concentrations commensurate to those observed this last quarter persist, you will be required to delineate the extent of soil and ground water contamination observed at the site.

Lastly, HA's report mentions that the purge water from the wells may be sewered. Permission from the Regional Water Quality

Control Board must be obtained prior to any discharge into the storm drain. An NPDES permit is required for any discharge to the sanitary sewer.

If you have any questions or comments, please contact me at (510) 567-6763.

Sincerely,

Juliet Shin
Hazardous Materials Specialist

cc: Bruce Hageman
Hageman-Aguiar
3732 Mt. Diablo Blvd., Ste 372
Lafayette, CA 94549

Edgar Howell

ATTACHMENT B

WELL SAMPLING LOGS

WELL SAMPLING LOG

Project/No. WEBSTER ST. Page 1 of 3

Site Location ALAMEDA, CA

Date 8/16/94

Well No. MW 1

Weather CLEAR / 85°F Time Began 1112 Completed 1155

EVACUATION DATA

Description of Measuring Point (MP) WELL BOX AT GRADE

Total Sounded Depth of Well Below MP 18.78

- Depth to Water Below MP 6.96 Diameter of Casing 4"

= Water Column in Well 11.82

Gallons in Casing 7.6 + Annular Space (30% porosity) 6.7 = Total Gallons 14.3

Gallons Pumped Prior to Sampling 45

Evacuation Method AIRLIFT PUMP

SAMPLING DATA / FIELD PARAMETERS

Inspection for Free Product: NONE DETECTED
(thickness to 0.1 inch, if any)

Time	1112	1120	1132	1140
Gals Removed	5	15	30	45
Temperature	21.8	22.1	21.7	21.3
Conductivity	180	180	180	178
pH	6.2	6.1	6.1	6.2
Color / Odor	BRN/HC	CLR/LT. HC	CLR/HC	clear/HC
Turbidity	MED	LOW	LOW	LOW

Comments: NONE

WELL SAMPLING LOG

Project/No. WEBSTER ST. Page 2 of 3

Site Location ALAMEDA, CA

Well No. MW 2 Date 8/16/94

Weather CLEAR/85°F Time Began 1017
Completed 1115

EVACUATION DATA

Description of Measuring Point (MP) WELL BOX AT GRADE

Total Sounded Depth of Well Below MP 19.52

- Depth to Water Below MP 7.00 Diameter of Casing 4"

= Water Column in Well 12.52

Gallons in Casing 8.0 + Annular Space (30% porosity) 7.1 = Total Gallons 15.1

Gallons Pumped Prior to Sampling 45

Evacuation Method AIRLIFT PUMP

SAMPLING DATA / FIELD PARAMETERS

Inspection for Free Product: NONE DETECTED
(thickness to 0.1 inch, if any)

Time	1017	1028	1043	1102
Gals Removed	5	15	30	45
Temperature	22.0	22.5	22.6	22.9
Conductivity	180	180	180	180
pH	6.8	6.4	6.2	6.1
Color / Odor	CLR/SWR	CLR/SWR	CLR/SWR	CLR/SWR
Turbidity	LOW	LOW	LOW	LOW

Comments: NONE

WELL SAMPLING LOG

Project/No. WEBSTER ST. Page 3 of 3

Site Location ALAMEDA

Well No. MW-3 Date 8/16/94

Weather CLEAR / 85°F Time Began 0925
Completed 1012

EVACUATION DATA

Description of Measuring Point (MP) WELL BOX AT GRADE

Total Sounded Depth of Well Below MP 19.50

- Depth to Water Below MP 6.98 Diameter of Casing 4"

= Water Column in Well 12.52

Gallons in Casing 6.0 + Annular Space (30% porosity) 7.1 = Total Gallons 15.1

Gallons Pumped Prior to Sampling 45

Evacuation Method AIRLIFT PUMP

SAMPLING DATA / FIELD PARAMETERS

Inspection for Free Product: NONE DETECTED
(thickness to 0.1 inch, if any)

Time	0925	0938	0950	1005
Gals Removed	5	15	30	45
Temperature	21.6	21.9	21.2	21.5
Conductivity	135	140	165	180
pH	6.8	6.7	6.3	6.0
Color / Odor	ORG/BRN	BRN/HC	BRN/LT HC	BRN/HC
Turbidity	MED	HIGH	HIGH	HIGH

Comments: NONE

ATTACHMENT C

ANALYTICAL RESULTS: GROUNDWATER

PRIORITY ENVIRONMENTAL LABS

Precision Environmental Analytical Laboratory

August 18, 1994 PEL # 9408069

HAGEMAN-AGUIAR, INC.

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

Project name: Leskoski
Project location: Webster Street - Alameda, CA

Date sampled: Aug 16, 1994 Date submitted: Aug 17, 1994
Date extracted: Aug 17-18, 1994 Date analyzed: Aug 17-18,1994

RESULTS:

SAMPLE I.D.	Kerosene (ug/L)	Gasoline (ug/L)	Diesel (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethyl Ben (ug/L)	Total Xyl ug/L)	Motor Oil (mg/L)	Stoddard Solvent (ug/L)
MW 1	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
MW 2	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
MW 3	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	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	---	85.3%	91.6%	97.8%	92.6%	89.4%	103.7%	---	---
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

1764 Houret Court Milpitas, CA. 95035 Tel: 408-946-9636 Fax: 408-946-9663

PEL # 9408069

CHAIN OF CUSTODY RECORD

INV # 25115

PROJECT NAME AND ADDRESS:
80 LEEKOSKI
WEBSTER ST.
ALAMEDA, CA

SAMPLER: (Signature)

HAGEMAN - AGUIAR, INC.
3732 Mt. Diablo Blvd., Suite 372
Lafayette, CA 94549
(415)284-1661 (415)284-1664 (FAX)

ANALYSIS REQUESTED: TPH GAS/BTXE; TEPH

CROSS REFERENCE NUMBER	DATE	TIME	SOIL	WATER	STATION LOCATION	TPH GAS/BTXE	TEPH	REMARKS
MW 1	8-16-94	1155		X	MONITOR WELL # 1	X	X	NORM TAT
MW 2	8-16-94	1115		X	" " # 2	X	X	"
MW 3	8-16-94	1012		X	" " # 3	X	X	"

RELINQUISHED BY: (Signature)	DATE 8-16-94 TIME 0920	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)	DATE 8/16/94 TIME 9:20 AM