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

September 27, 1994

GROUNDWATER SAMPLING REPORT

(sampled September 14, 1994)

RODDING-CLEANING SERVICE
2585 Nicholson Street
San Leandro, CA

Introduction

The site location is the Rodding-Cleaning Service facility in San Leandro, California. The location of the site is shown in Figure 1. In conjunction with the facility operation, the site has historically operated one underground fuel storage tank and one underground waste oil storage tank for a number of years.

The two underground storage tanks were removed from the site by Scott-Broadway in 1991. At the time of the removal, four soil samples and two groundwater samples were collected from the two tank excavations. The results of the analysis of soil samples collected from the tank sidewalls indicated the presence of Diesel and Gasoline at concentrations of up to 470 mg/kg (ppm) and 1,400 mg/kg (ppm), respectively. In

FIGURE 1.
Site Location Map.

addition, the results of the groundwater sample analyses indicated the presence of Total Petroleum Hydrocarbons as Gasoline at concentrations of up to 38 mg/L (ppm).

Based upon the tank removal analytical results, a soil and groundwater investigation was conducted by Hageman-Aguiar, Inc. The scope of work undertaken by Hageman-Aguiar, Inc., included 1) the conduct of a soil sampling program in order to determine the lateral extent of subsurface soil contamination surrounding the locations of the former underground storage tanks, and 2) the installation of one shallow groundwater monitoring at the perceived down-gradient location. The results of the investigation were presented in a report by Hageman-Aguiar, Inc., dated July 29, 1992.

This most recent groundwater sampling conducted on September 14, 1994, represents the seventh "round" of shallow groundwater monitoring at the site following the initial subsurface investigation.

Monitoring Well Sampling

On September 14, 1994, groundwater samples were collected from the one on-site monitoring well. The location of the monitoring well is shown in Figure 2 (site map). Prior to groundwater sampling, the well was purged by bailing approximately several 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

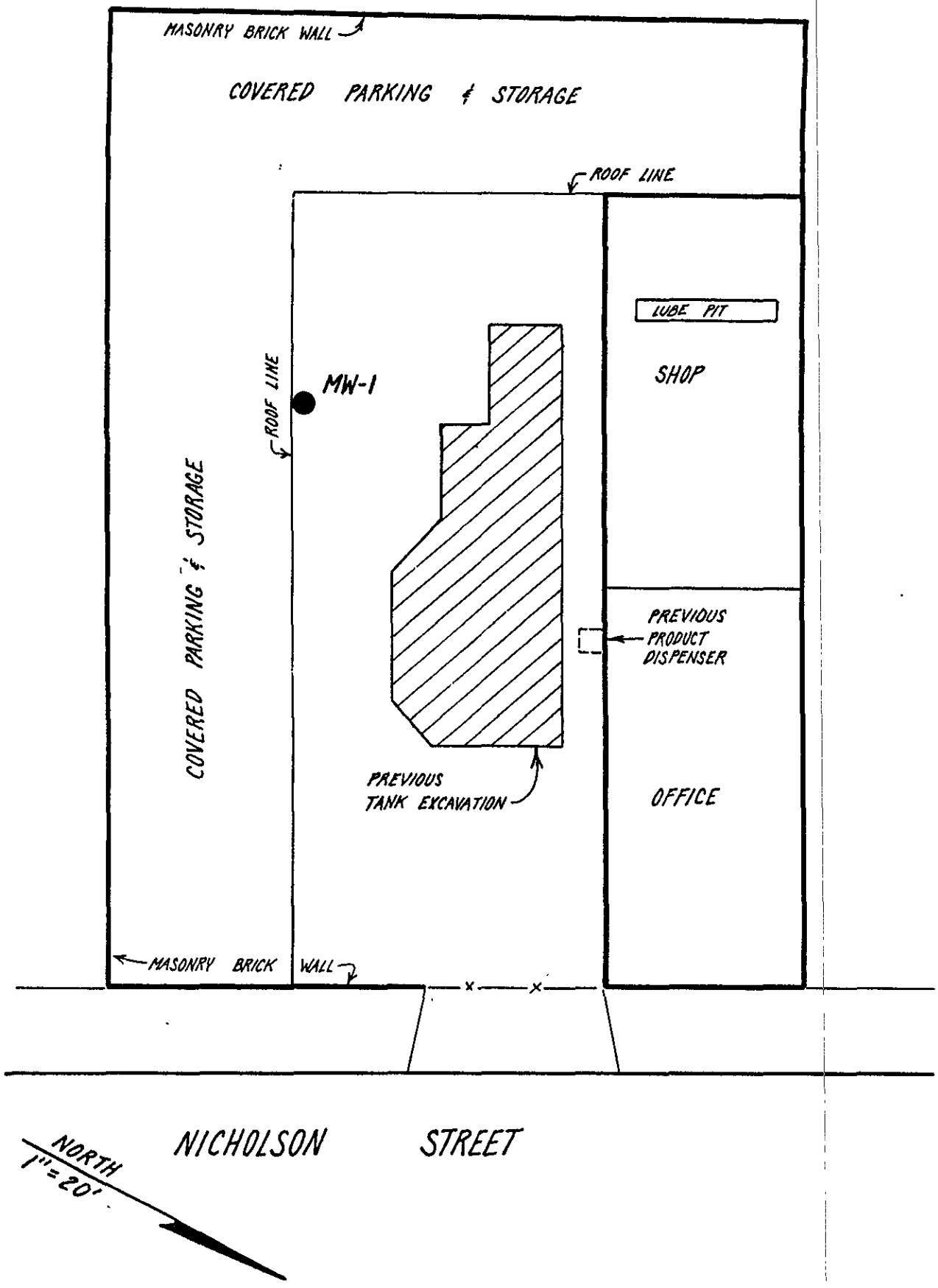


FIGURE 2.
Site Map.

immediately placed on crushed ice, then transported under chain-of-custody to the laboratory at the end of the work day.

At the time the 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.

A copy of the well sampling log is included as Attachment A.

Free Product Thickness

Table 1 presents the results of free-floating product thickness measurements collected since June 8, 1992. Table 1 shows that free-floating product was present in the well casing during this sampling episode.

Water Level Measurement

The shallow groundwater elevation in MW-1 was measured as 7.01 feet below ground surface on September 14, 1994.

Laboratory Analysis

All analyses were conducted by a California State DOHS certified laboratory in accordance with EPA recommended procedures. All groundwater samples were analyzed for 1) Total Petroleum Hydrocarbons as Gasoline (EPA method 8015),

TABLE 1.

Product Thickness
(inches)

Well	Date of Measurement										
	6-8-92	11-9-92	4-23-93	7-28-93	12-10-93	3-14-94	6-30-94	9-14-94			
MW-1	0	0	1.9	0.4	0	1.2	0.36	0.24			

8015), 2) Total Petroleum Hydrocarbons as Diesel (EPA method 8015), 3) Benzene, Toluene, Ethylbenzene and Total Xylenes (BTEX) (EPA method 602), 4) Motor Oil (EPA method 8015), 5) Kerosene (EPA method 8015), and 6) Stoddard Solvent (EPA method 8015).

Laboratory Results

Table 2 presents the results of the laboratory analysis for TPH as Gasoline, TPH as Diesel, Benzene, Toluene, Ethyl-benzene, and Xylene (BTEX), and TEPH as Kerosene, Motor Oil, and Stoddard Solvent of the groundwater sample collected from monitoring well MW-1. As shown in this table, laboratory analysis of the shallow groundwater sample indicated the presence of dissolved Gasoline and Diesel at concentrations of 2,400 µg/L (ppb) and 52 µg/L (ppb), respectively for this most recent round of sampling.

In addition, Benzene, Toluene, Ethylbenzene and Total Xylenes were detected in the shallow groundwater sample collected from well MW-1 at concentrations of 5.3 µg/L (ppb), 2.6 µg/L (ppb), 2.5 µg/L (ppb) and 6.0 µg/L (ppb), respectively.

As shown in Table 2, **no detectable concentrations of Kerosene, Stoddard Solvent or Motor Oil** were present in the shallow groundwater samples.

A copy of the laboratory certificate for the water sample analysis is included as Attachment B.

TABLE 2.

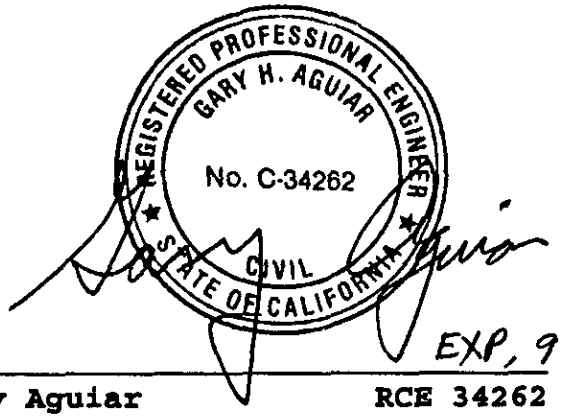
Shallow Groundwater Sampling Results

Well	Date	TPH as Gasoline (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethyl-benzene (ug/L)	Total Xylenes (ug/L)	TPH as Diesel (ug/L)	Kerosene (ug/L)	Motor Oil (mg/L)	Stoddard Solvent (ug/L)
MW-1	06-08-92	10,000	110	81	62	280	ND	---	---	---
	11-09-92	9,800	23	14	22	96	ND	---	---	---
	04-23-93	18,000	42	47	50	190	560	ND	ND	370
	07-28-93	27,000	40	45	63	190	ND	ND	ND	ND
	12-10-93	7,800	13	16	20	77	3,800	ND	ND	ND
	03-14-94	280,000	970	880	620	1,700	620	ND	ND	3,300
	06-30-94	8,500	23	13	8.5	19	ND	ND	ND	ND
	09-14-94	2,400	5.3	2.6	2.5	6.0	52	ND	ND	ND
Detection Limit		50	0.5	0.5	0.5	0.5	50	50	0.5	50

ND = not detected

QUARTERLY GROUNDWATER SAMPLING REPORT
RODDING-CLEANING SERVICE
2585 Nicholson Street, San Leandro, CA

September 27, 1994



EXP, 9-30-95

Gary Aguiar **RCE 34262**

Gerard F. Aarons **Geologist**

ATTACHMENT A

WELL SAMPLING LOGS

WELL SAMPLING LOG

Project/No. RODDING CLEANING Page 1 of 1

Site Location SAN LEANDRO, CA

Date 9/14/94

Well No. MW 1

Weather CLEAR / 80°F

Time Began 1155

Completed 1245

EVACUATION DATA

Description of Measuring Point (MP) WELL BOX AT GRADE

Total Sounded Depth of Well Below MP 18.74

- Depth to Water Below MP 7.01

= Water Column in Well 11.73

Diameter of Casing 6"

Gallons in Casing 17.2 + Annular Space (30% porosity) (x3) = Total Gallons 51.7

Gallons Pumped Prior to Sampling 55

Evacuation Method PVC BAILER

SAMPLING DATA / FIELD PARAMETERS

Inspection for Free Product: .02' DARK BROWN
(thickness to 0.1 inch, if any)

Time	1155	1212	1222	1235
Gals Removed	5	20	40	55
Temperature	19.6	19.5	19.6	19.6
Conductivity	350	390	420	440
pH	7.6	7.5	7.1	7.0
Color / Odor	CLR/HC	CLR/HC	CLR/HC	CLR/HC
Turbidity	LOW	LOW	LOW	LOW

Comments: NONE

ATTACHMENT B

ANALYTICAL RESULTS: GROUNDWATER

PRIORITY ENVIRONMENTAL LABS

Precision Environmental Analytical Laboratory

September 16, 1994 PEL # 9409046

HAGEMAN - AGUIAR, INC.

Attn: Jeffrey Roth
Re: One water sample for Gasoline/BTEX and TEPH analyses.

Project name: Rodding Cleaning
Project location: San Leandro, CA.

Date sampled: Sep 14, 1994 Date submitted: Sep 15 1994
Date extracted: Sep 15, 1994 Date analyzed: Sep 15,1994

RESULTS:

SAMPLE I.D.	Kerosene (ug/L)	Gasoline (ug/L)	Diesel (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethyl Benzene (ug/L)	Total Xylenes (ug/L)	Motor Oil (mg/L)	Stoddard Solvent (ug/L)
MW 1	N.D.	2400	52	5.3	2.6	2.5	6.0	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	---	95.9%	105.1%	93.8%	84.1%	94.0%	96.8%	---	---
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 # 9409046

INV # 25227

CHAIN OF CUSTODY RECORD

PROJECT NAME AND ADDRESS:
LODDING CLEANING
SAN LEANDRO, CA

SAMPLER: (Signature)

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

ANALYSIS REQUESTED

CROSS REFERENCE NUMBER	DATE	TIME	SOIL	WATER	STATION LOCATION	TPH Gasoline	TEPH	REMARKS
MW 1	9-14-94			X	MONITOR WELL #1	X	X	NORMAL

RELINQUISHED BY: (Signature)	DATE 9-15-94 TIME 0930	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 9-15-94 TIME 930