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

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QUARTERLY

GROUNDWATER SAMPLING REPORT

(Sampled September 5, 1997)

MATHESON TRUCKING
2500 Poplar Street
Oakland, California

October 1, 1997

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

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I. INTRODUCTION

The site location is the Matheson Trucking facility located at 2500 Poplar Street in Oakland, California. It has been maintained as a truck maintenance, fueling, dispatch facility for a number of years. The location of the site is shown in Figure 1.

The layout of the site, along with the locations of previous underground storage tanks, is shown in Figure 2. On August 2, 1994, three underground storage tanks were removed from the site by CNC Services of Antioch, California. The tanks consisted of one 1,000-gallon single-wall steel tank and two 4,000-gallon single-wall steel tanks. Diesel and Gasoline were found to be present in the native soil beneath the 4,000-gallon tank nearest to Poplar Street at concentrations of 44 mg/Kg (ppm) and 1,360 mg/Kg (ppm), respectively.

Diesel and Gasoline were found to be present in the native soil beneath the 1,000-gallon tank, located along Union Street, at concentrations of 22 mg/Kg (ppm) and 550 mg/Kg (ppm), respectively.

On October 29, 1996, the two shallow groundwater monitoring wells MW-1 and MW-2 were installed on the site by Hageman-Aguiar, Inc. On June 10, 1997, the two on-site shallow groundwater monitoring wells MW-1 and MW-2 were sampled for the laboratory analysis for dissolved petroleum constituents. This "round" of groundwater sampling has been conducted as part of the quarterly groundwater monitoring program at the site, as required by the Alameda County Environmental Health Department and the California Regional Water Quality Control Board (RWQCB), San Francisco Bay Region. At the request of Matheson Trucking, an additional round of shallow groundwater sampling was conducted on April 28, 1997, in order to confirm the results of the previous quarterly groundwater sampling..

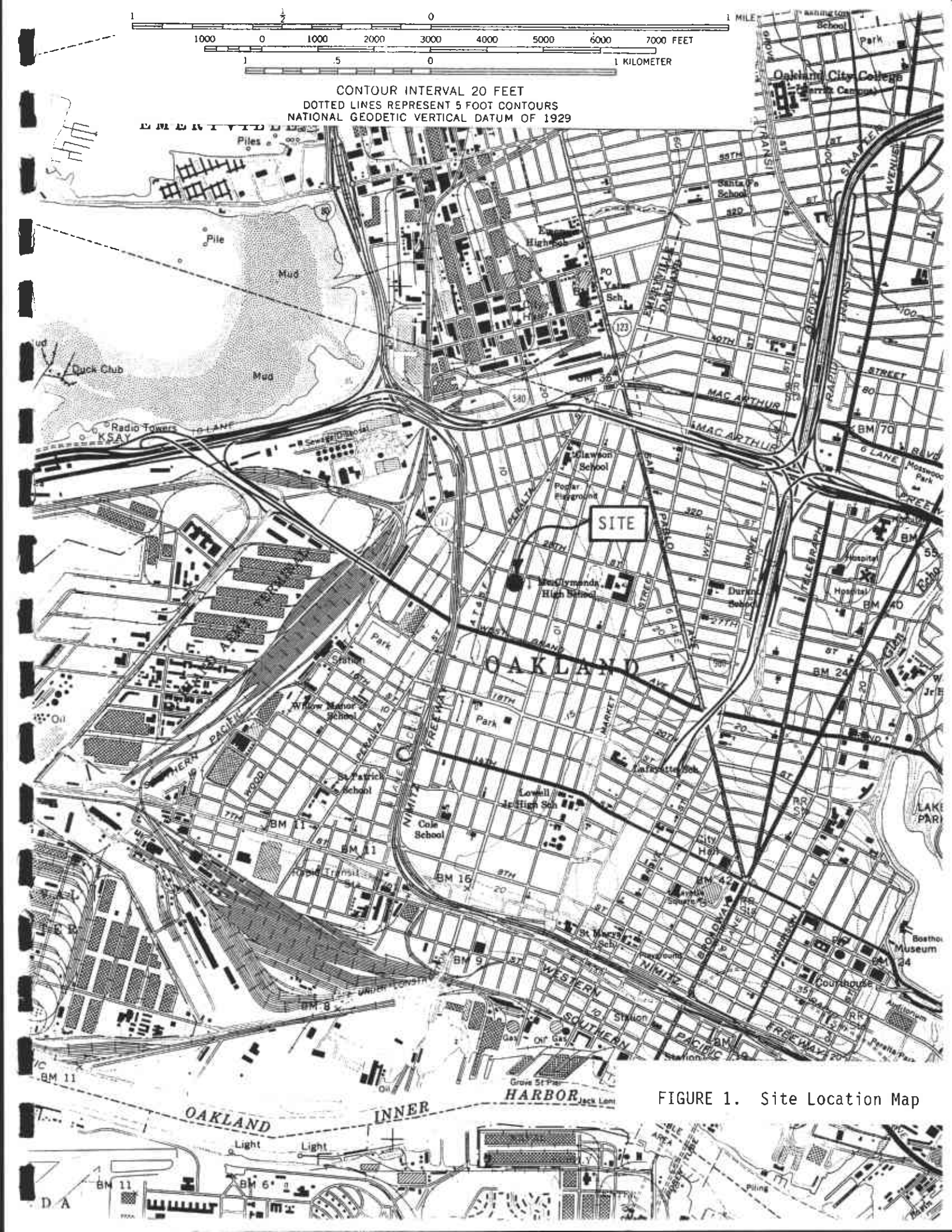

FIGURE 1. Site Location Map

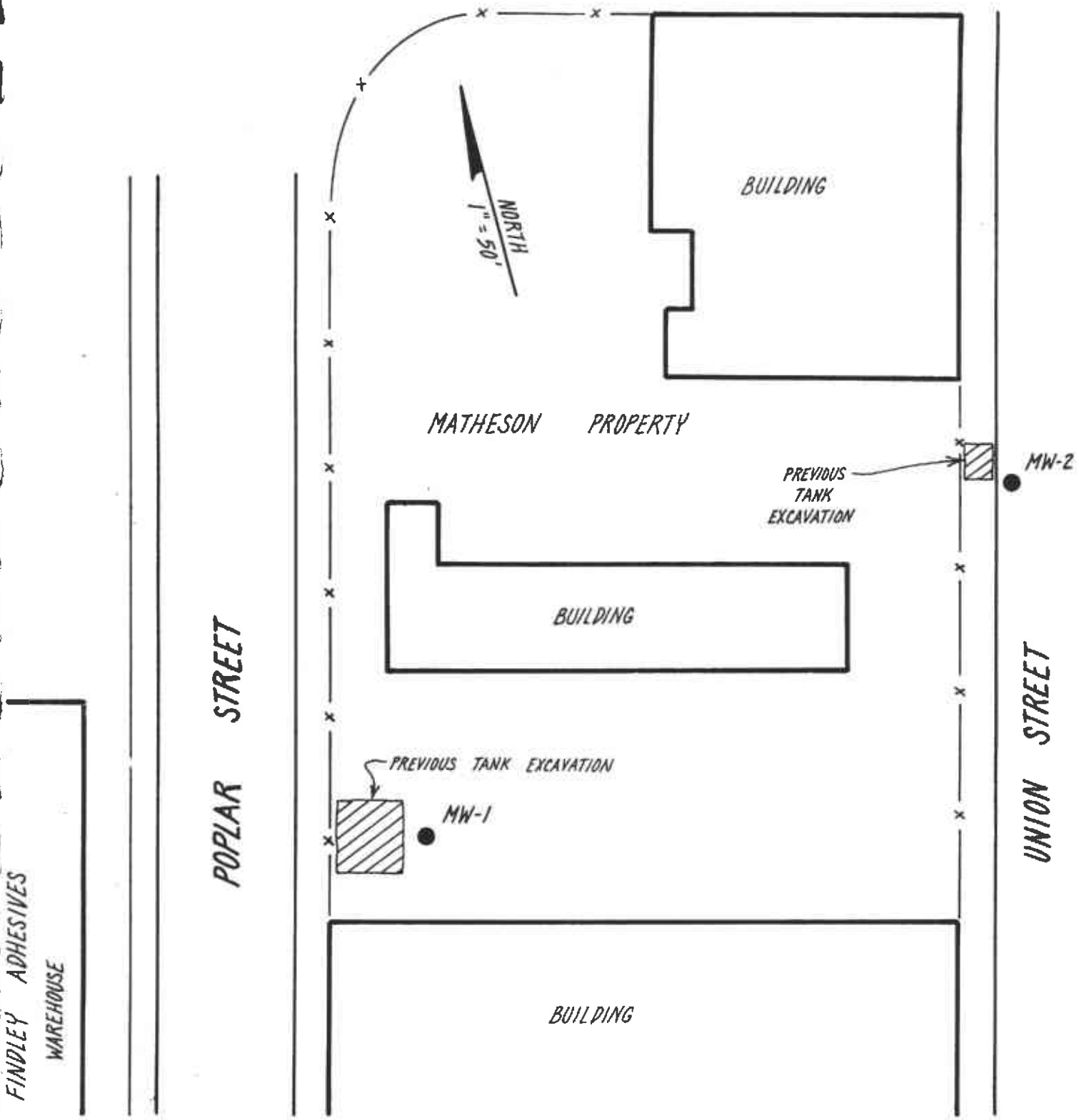

FIGURE 2.

Site Map.

II. FIELD WORK

Monitoring Well Sampling

On September 5, 1997, groundwater samples were collected from each of the on-site monitoring wells MW-1 and MW-2. The location of the monitoring wells are shown on Figure 2 (Site Map). Prior to the groundwater sampling, each well was purged by bailing 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. A groundwater sample was subsequently collected using a new clean disposable sampling bailers. The water samples were placed inside appropriate 40 ml VOA vials and 1-liter amber bottles free from any head space. 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 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 purging was drummed and stored on-site until the results of the laboratory analyses were obtained. Based upon these results, it appears that this water may be suitable for on-site landscape irrigation. The ultimate disposal of this waste water is the responsibility of the property owner (waste generator), and is beyond the scope of work as outlined in this report.

III. RESULTS OF WATER LEVEL MEASUREMENTS

Shallow Groundwater Flow Direction

The most recent shallow water table elevations were measured on August 12, 1996. At that time, the shallow groundwater beneath the site was determined to flow in the southerly direction.

Table 1 presents the results of all water level measurements collected since February 1, 1996. In addition to the measurements made during the regular quarterly groundwater monitoring, several additional "rounds" of water table elevations have been conducted in an attempt to establish a record of water table contours at the site. The groundwater elevation in an additional well on the neighboring Findley Adhesives property was previously measured. Since **the Findley well has been decommissioned**, determination of the shallow groundwater flow direction is no longer possible. The data in Table 1, however, clearly establishes the shallow groundwater flow to be in the **south to southeasterly direction**.

TABLE 1.

Historical Water Table Elevations
(feet)

WELL	Date of Measurement							
	02-01-96	04-10-96	04-19-96	04-27-96	05-01-96	07-29-96	08-12-96	10-29-96
MW-1	2.68	3.34	3.12	0.40	2.58	1.30	1.07	0.18
MW-2	3.52	3.14	3.03	2.62	2.83	1.81	1.75	1.27
FINDLEY MW-2	4.44	4.02	4.19	4.12	4.06	3.74	3.61	---
Flow Direction	SE	SE	SE	SE	SE	S	S	---
Hydraulic Gradient	0.0220	0.0070	0.0120	0.050	0.018	0.029	0.031	---

WELL	Date of Measurement							
	02-18-97	04-28-97	06-10-97	06-10-97				
MW-1	3.06	1.74	1.26	0.52				
MW-2	3.14	2.22	1.82	1.15				
Flow Direction	---	---	---	---				
Hydraulic Gradient	---	---	---	---				

IV. LABORATORY RESULTS

Laboratory Analysis

All analyses were conducted by a California Sate DOHS certified laboratory in accordance with EPA recommended procedures (Priority Environmental Laboratory, Milpitas, CA).

All shallow groundwater samples were analyzed for 1) total extractable petroleum hydrocarbons as Diesel (EPA method 8015), 2) total petroleum hydrocarbons as Gasoline (EPA method 8015), 3) Benzene, Toluene, Ethylbenzene, and Total Xylenes (EPA method 602), and 4) Methyl Tertiary Butyl Ether (MTBE) by EPA Method 602 .

Results of Laboratory Analysis

Table 2 presents the results of the laboratory analysis of the groundwater samples collected from monitoring wells MW-1 and MW-2.

For this round of quarterly sampling, no detectable concentrations of either Diesel, Gasoline, Benzene, Toluene, Ethylbenzene, Total Xylenes or MTBE were found in any of the shallow groundwater samples.

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

TABLE 2.

Shallow Groundwater Sampling Results

Well	Date	TPH as Diesel (ug/L)	TPH as Gasoline (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethyl-benzene (ug/L)	Total Xylenes (ug/L)	MTBE (ug/L)
MW-1	02-02-96	**140**	**120**	ND	**1.5**	**0.5**	**5.5**	---
	05-01-96	ND	**240**	ND	ND	**2.3**	**2.8**	---
	07-29-96	ND	ND	ND	ND	ND	ND	---
	10-29-96	ND	ND	ND	ND	ND	ND	---
	02-18-97	**3,000**	ND	ND	ND	ND	ND	ND
	04-28-97	ND	ND	ND	ND	ND	ND	ND
	06-10-97	ND	ND	ND	ND	ND	ND	ND
	09-05-97	ND	ND	ND	ND	ND	ND	ND
MW-2	02-02-96	**350**	**230**	**0.6**	**0.9**	**1.2**	**3.0**	---
	05-01-96	ND	**1,000**	ND	ND	**0.5**	**3.1**	---
	07-29-96	ND	ND	ND	ND	ND	ND	---
	10-29-96	ND	ND	ND	ND	ND	ND	---
	02-18-97	**1,400**	ND	ND	ND	ND	ND	ND
	04-28-97	ND	**430**	ND	**2.8**	**1.6**	**8.2**	ND
	06-10-97	ND	ND	ND	ND	ND	ND	ND
	09-05-97	ND	ND	ND	ND	ND	ND	ND
Detection Limit		50	50	0.5	0.5	0.5	0.5	0.5

ND = Not Detected

QUARTERLY GROUNDWATER SAMPLING REPORT

MATHESON TRUCKING

2500 Poplar Street, Oakland, CA.

October 1, 1997

EXP. 9-30-99

Gary Aguiar **RCE 34262**

ATTACHMENT A

Well Sampling Logs

Hageman-Aguiar, Inc.
3732 Mt. Diablo Blvd. Suite 372
Lafayette, California 94549
(510) 284-1661 Fax (510) 284-1664

Project: Matheson - Oakland **Date:** 09/05/97

WELL #	DTW	PRODUCT	WELL DEPTH	PRODUCT REMOVED	COMMENTS
MW-1	7.64'	none	15.00'		
MW-2	6.88'	none	14.64'		

WELL SAMPLING LOG

Site Location: Matheson - Oakland
Page: 1 of 2

Well Number: MW-2
Date: 09/05/97

Weather: Sunny 80°-90°
Time Began: 14:16

Sampling Personnel: R Wilson
Completed: 14:34

EVACUATION DATA

Description of Measuring Point (MP): WB@G

		Sample Collected	
Total Sounded Depth of Well Below MP	14.37' + 0.27'		
- Depth to Water Below MP	6.88'	Volatile Organics (VOA's)	3
= Water Column in Well	7.76'	1 Liter Amber Glass	1
x Casing Diameter Multiplier	0.169	Polyethylene (plastic)	
= Gallons in Casing	1.31	Other	
Gallons Pumped Prior to Sampling	6	Samples Filtered	

Evacuation Method:		Sample Method:	
PVC Bailer	X	Evacuation Bailer	
Acrillyc Bailer		Disposable Bailer	X
Pump		Pump	
Other		Direct	

SAMPLING DATA / FIELD PARAMETERS

Inspection for Free Product: none, clear
(thickness to 0.01 foot, if any)

Time	14:23	14:27	14:30	14:34	
Gals Removed	1.5	3	4.5	6	
Temperature	78.0	76.3	75.8	75.5	
Conductivity	1.60×10^3	1.57×10^3	1.59×10^3	1.60×10^3	
pH	6.82	6.94	6.93	6.92	
Color / Odor	Tan	Tan	Tan	Tan	
Turbidity	high	high	high	high	
Other					

Comments:

WELL SAMPLING LOG

Site Location: Matheson - Oakland
Page: 2 of 2

Well Number: MW-1
Date: 09/05/97

Weather: Sunny 80°- 90°
Time Began: 14:49

Sampling Personnel: B Wilson
Completed: 15:09

EVACUATION DATA

Description of Measuring Point (MP): WB@G

Total Sounded Depth of Well Below MP	14.73' +0.27'	Sample Collected	
- Depth to Water Below MP	7.64'	Volatile Organics (VOA's)	2
= Water Column in Well	7.36'	1 Liter Amber Glass	1
x Casing Diameter Multiplier	0.169	Polyethylene (plastic)	
= Gallons in Casing	1.24	Other	
Gallons Pumped Prior to Sampling	6	Samples Filtered	

Evacuation Method:		Sample Method:	
PVC Bailer	X	Evacuation Bailer	
Acrillyc Bailer		Disposable Bailer	X
Pump		Pump	
Other		Direct	

SAMPLING DATA / FIELD PARAMETERS

Inspection for Free Product: none, clear
(thickness to 0.01 foot, if any)

Time	14:57	15:01	15:04	15:09	
Gals Removed	1.5	3	4.5	6	
Temperature	70.7	68.7	68.4	68.6	
Conductivity	2.53×10^3	2.69×10^3	2.71×10^3	2.72×10^3	
pH	7.76	7.29	7.32	7.18	
Color / Odor	Tan	Tan	Tan	Tan	
Turbidity	low	low	low	low	
Other					

Comments:

ATTACHMENT B

Analytical Results: Groundwater

PRIORITY ENVIRONMENTAL LABS
Precision Environmental Analytical Laboratory

September 10, 1997 PEL # 9709009

HAGEMAN - AGUIAR, INC.

Attn: Randall Wilson

Re: Two water samples for Gasoline/BTEX with MTBE and Diesel analyses.

Project name: Matheson
Project location: Oakland, C.A.

Date sampled: Sept.05, 1997 Date submitted: Sept 08, 1997
Date extracted: Sept 08-09, 1997 Date analyzed: Sept.08-09, 1997

RESULTS:

SAMPLE I.D.	Gasoline (ug/L)	MTBE (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethyl Benzene (ug/L)	Total Xylenes (ug/L)	Diesel (ug/L)
MW - 1	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.
Blank	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Spiked Recovery	81.9%	----	82.5%	94.4%	85.7%	94.2%	97.3%
Detection limit	50	0.5	0.5	0.5	0.5	0.5	50
Method of Analysis	5030/ 8015	602	602	602	602	602	3510/ 8015

David Duong
Laboratory Director

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

PEL # 9709009

CHAIN OF CUSTODY RECORD

INV # 27909

PROJECT NAME AND ADDRESS:

Matheson - Oakland

Oakland

SAMPLER: (Signature) Randal Wilson

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-Gas, BTEX, MTBE	TPH-Diesel						REMARKS
MW-1	09/05/97	13:15		X	Monitoring well #1	X	X						
MW-2	09/05/97	12:30		X	" " #2	X	X						

RELINQUISHED BY: (Signature) Randal Wilson	DATE 09/08/97 TIME 11:42	RECEIVED BY: (Signature)	DATE 9/8/97 TIME 11:45
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) PCL	DATE TIME