



ENVIRONMENTAL
PROTECTION
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Underground Contamination Investigations, Groundwater Consultants, Environmental Engineering

**QUARTERLY
GROUNDWATER SAMPLING REPORT**

(Sampled February 18, 1997)

MATHESON TRUCKING
2500 Poplar Street
Oakland, California

April 3, 1997

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ATTACHMENT A -- Well Sampling Logs

ATTACHMENT B -- Analytical Results: Groundwater

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.

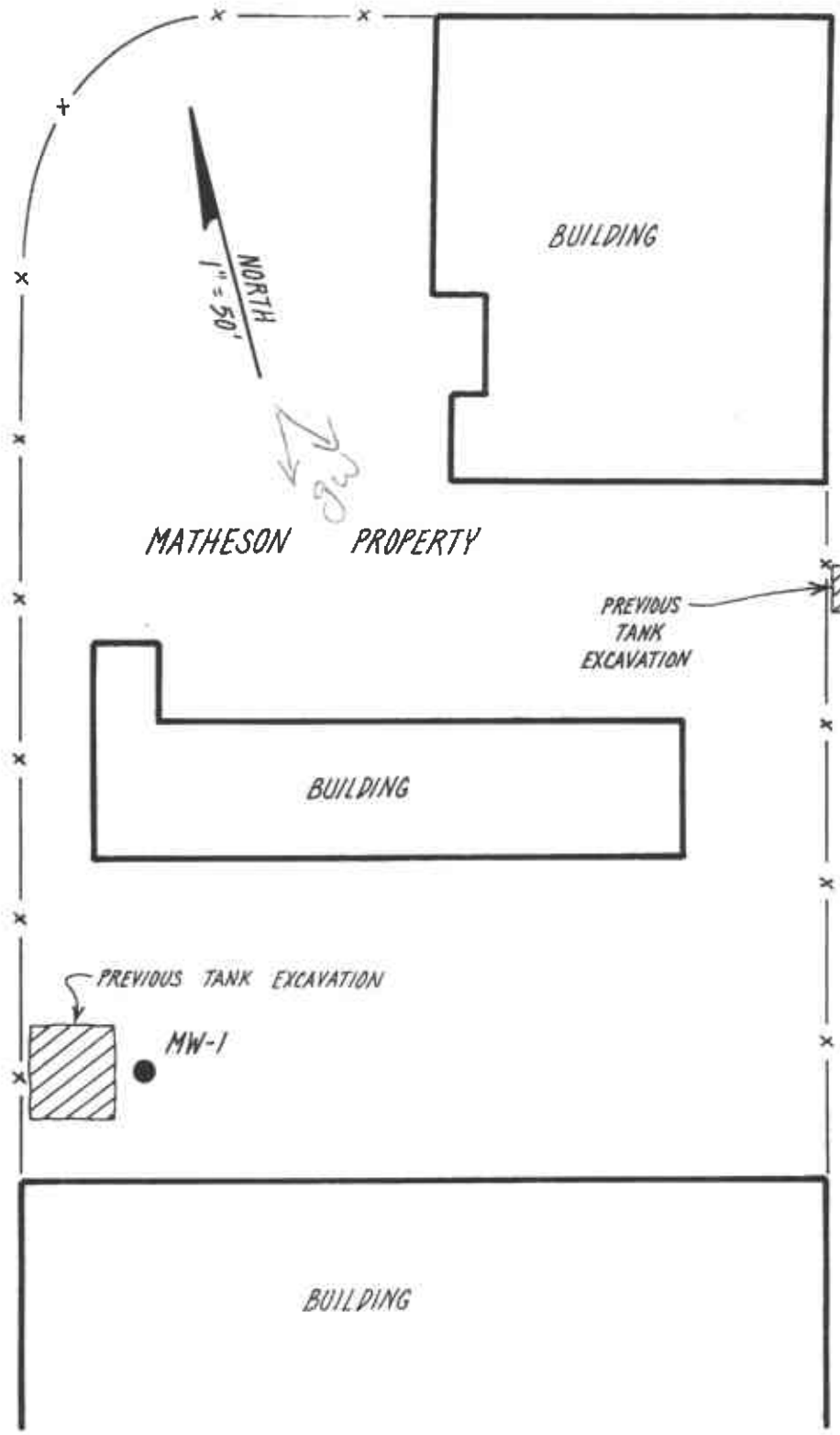
The layout of the site, along with the locations of previous underground storage tanks, is shown in Figure 2. On August 2, 1994, three underground storage tanks were removed from the site by CNC Services of Antioch, California. The tanks consisted of one 1,000-gallon single-wall steel tank and two 4,000-gallon 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 February 18, 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.

FINDLEY ADHESIVES
WAREHOUSE

POPLAR STREET



UNION STREET

FIGURE 2.
Site Map.

II. FIELD WORK

Monitoring Well Sampling

On October 29, 1996, 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. 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 between February 1, 1996 and August 12, 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 recently 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	
MW-1	2.68	3.34	3.12	0.40	2.58	1.30	1.07	
MW-2	3.52	3.14	3.03	2.62	2.83	1.81	1.75	
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	

IV. LABORATORY RESULTS

Laboratory Analysis

All analyses were conducted by a California State 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) 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 monitoring wells MW-1 and MW-2.

For this round of quarterly sampling, Diesel was found in the shallow groundwater samples collected from wells MW-1 and MW-2 at concentrations of 3,000 µg/L (ppb) and 1,400 µg/L (ppb), respectively.

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

TABLE 2.

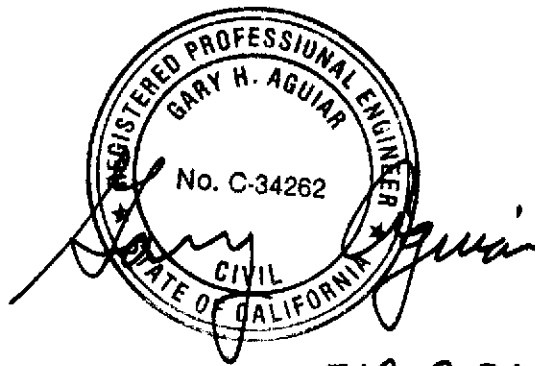
Shallow Groundwater Sampling Results

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)
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
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
Detection Limit		50	50	0.5	0.5	0.5	0.5

ND = Not Detected

QUARTERLY GROUNDWATER SAMPLING REPORT
MATHESON TRUCKING
2500 Poplar Street, Oakland, CA.

April 3, 1997



EXP. 9-30-99

Gary Aguiar

RCE 34262

ATTACHMENT A

Well Sampling Logs

ATTACHMENT B

Analytical Results: Groundwater



PRIORITY ENVIRONMENTAL LABS

Precision Environmental Analytical Laboratory

February 20, 1997

PEL # 9702032

HAGEMAN - AGUIAR, INC.

Attn: Gary Aguiar

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


Project name: Matheson Trucking ✓
Project location: 2500 Poplar Ave., - Oakland

Date sampled: Feb 18, 1997 ✓
Date extracted: Feb 19-20, 1997

Date submitted: Feb 19, 1997
Date analyzed: Feb 19-20, 1997

RESULTS:

SAMPLE I.D.	Gasoline (ug/L)	Diesel (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethyl Benzene (ug/L)	Total Xylenes (ug/L)	Oil & Grease (mg/L)
MW-1	N.D. ✓	3000 ✓	N.D.	N.D.	N.D.	N.D.	N.D.
MW-2	N.D.	1400 ✓	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	98.9%	81.2%	88.4%	95.1%	97.2%	90.3%	---
Detection limit	50	50	0.5	0.5	0.5	0.5	0.5
Method of Analysis	5030 / 8015	3510 / 8015	602	602	602	602	5520 C & F


David Duong
Laboratory Director

