



Underground Contamination Investigations, Groundwater Consultants, Environmental Engineering

ENVIRONMENTAL
PROTECTION
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**QUARTERLY
GROUNDWATER SAMPLING REPORT**

(Sampled October 29, 1996)

MATHESON TRUCKING
2500 Poplar Street
Oakland, California

November 6, 1996

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I. INTRODUCTION

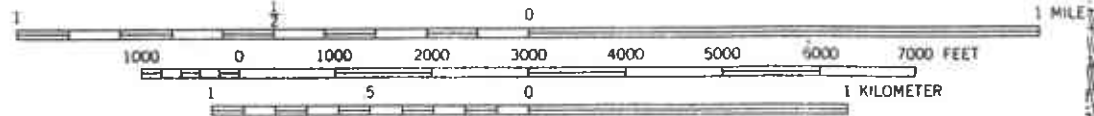
The site location is the Matheson Trucking facility located at 2500 Poplar Street in Oakland, California. It has been maintained as a truck maintenance, fueling, dispatch facility for a number of years. The location of the site is shown in Figure 1.

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 July 29, 1996, 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.

SCALE 1:24 000



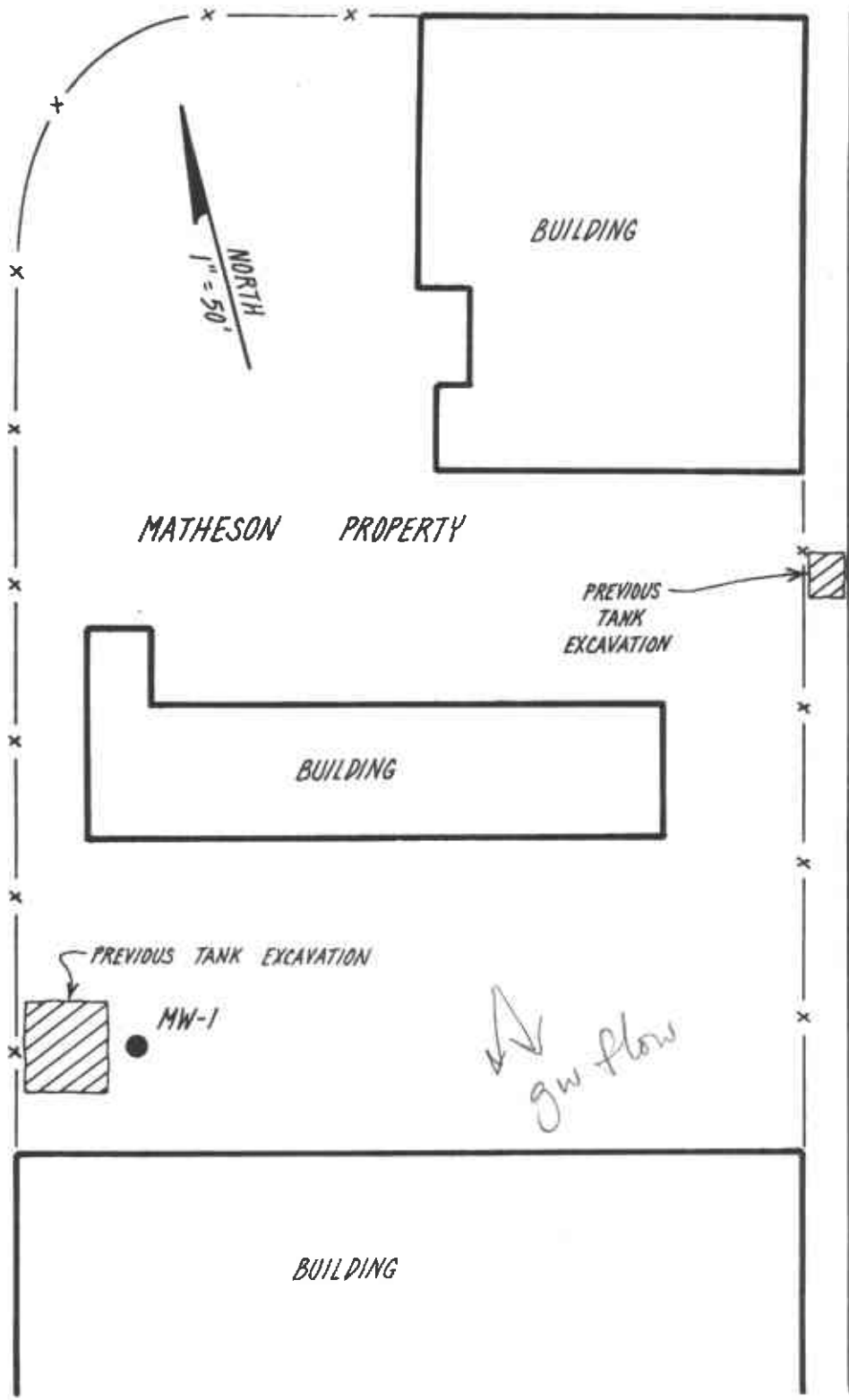
CONTOUR INTERVAL 20 FEET
 DOTTED LINES REPRESENT 5 FOOT CONTOURS
 NATIONAL GEODETIC VERTICAL DATUM OF 1929



FIGURE 1. Site Location Map

FINDLEY ADHESIVES
WAREHOUSE

POPLAR STREET



MATHESON PROPERTY

BUILDING

BUILDING

PREVIOUS TANK EXCAVATION

MW-1

PREVIOUS TANK EXCAVATION

MW-2

GW flow

UNION STREET

BUILDING

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 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 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 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 purging was drummed and stored on-site until the results of the laboratory analyses were obtained. Based upon the results of laboratory analyses performed on the groundwater samples collected from the monitoring wells, this water contains no detectable concentrations of either Diesel, Gasoline or BTEX, and 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 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, no detectable concentrations of either Diesel, Gasoline, Benzene, Toluene, Ethylbenzene or Total Xylenes were found in the shallow groundwater samples collected from wells MW-1 and MW-2.

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
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
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.

November 6, 1996



EXP. 9-30-99

Gary Aguiar

RCE 34262

ATTACHMENT A

Well Sampling Logs

WELL SAMPLING LOG

Project/No. 0151 Page 1 of 2
 Site Location Matheson - Oakland Date 10/29/96
 Well No. MW-2 Time Began 12:30
 Weather cloudy 60°-70° Completed 12:48
 Sampling Personnel R Wilson

EVACUATION DATA

Description of Measuring Point (MP) T.O.C.
 Total Sounded Depth of Well Below MP 13.50' + 0.27'
 - Depth to Water Below MP 6.76' Diameter of Casing 2"
 = Water Column in Well 7.01'
 Gallons in Casing 1.18 + Annular Space _____ = Total Gallons _____
 (30% porosity)
 Gallons Pumped Prior to Sampling 0

Evacuation Method PVC Bailer
 Sample Method Disposable Bailer
 Sample Collected 2 - VOA 1 - 1 liter Amber

SAMPLING DATA / FIELD PARAMETERS

Inspection for Free Product: none, clear
 (thickness to 0.1 inch, if any)

	<u>12:34</u>	<u>12:38</u>	<u>12:41</u>	<u>12:44</u>
Time				
Gals Removed	<u>2</u>	<u>4</u>	<u>6</u>	<u>8</u>
Temperature	<u>73.1</u>	<u>73.8</u>	<u>74.1</u>	<u>73.9</u>
Conductivity	<u>8.02 x 10²</u>	<u>7.98 x 10²</u>	<u>7.64 x 10²</u>	<u>7.98 x 10²</u>
pH	<u>6.87</u>	<u>6.63</u>	<u>6.60</u>	<u>6.63</u>
Color / Odor	<u>Tan</u>	<u>Tan</u>	<u>Tan</u>	<u>Tan</u>
Turbidity	<u>med</u>	<u>med</u>	<u>med</u>	<u>med</u>

Comments: _____

WELL SAMPLING LOG

Project/No. 0151 Page 2 of 2
Site Location Matheson - Oakland Date 10/29/96
Well No. MW-1
Weather cloudy 65°-75° Time Began 13:22
Completed 13:39
Sampling Personnel A Wilson

EVACUATION DATA

Description of Measuring Point (MP) T.O.C.
Total Sounded Depth of Well Below MP 14.39' + 0.27'
- Depth to Water Below MP 7.98' Diameter of Casing 2"
= Water Column in Well 6.68'
Gallons in Casing 1.14 + Annular Space _____ = Total Gallons _____
(30% porosity)
Gallons Pumped Prior to Sampling 8

Evacuation Method PVC Bailer
Sample Method Disposable Bailer
Sample Collected 2-VOA 1-1 Liter Amber

SAMPLING DATA / FIELD PARAMETERS

Inspection for Free Product: none, clear
(thickness to 0.1 inch, if any)

Time	<u>13:25</u>	<u>13:28</u>	<u>13:30</u>	<u>13:34</u>
Gals Removed	<u>2</u>	<u>4</u>	<u>6</u>	<u>8</u>
Temperature	<u>68.5</u>	<u>68.3</u>	<u>67.8</u>	<u>67.5</u>
Conductivity	<u>7.97×10^2</u>	<u>9.08×10^2</u>	<u>9.01×10^2</u>	<u>8.97×10^2</u>
pH	<u>6.81</u>	<u>6.81</u>	<u>6.80</u>	<u>6.77</u>
Color / Odor	<u>Tan</u>	<u>Tan</u>	<u>Tan</u>	<u>Tan</u>
Turbidity	<u>low</u>	<u>med</u>	<u>med</u>	<u>med</u>

Comments: _____

ATTACHMENT B

Analytical Results: Groundwater

PEL # 9610060
 INV # 27385

CHAIN OF CUSTODY RECORD

PROJECT NAME AND ADDRESS: <u>Matheson Trucking</u> <u>2500 Poplar Street</u> <u>Oakland</u>					SAMPLER: (Signature) <u>Randal Wilson</u>			ANALYSIS REQUESTED <i>TPH-G, BTEX</i> <i>TPH-D</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					
MW-1	10/29/96	13:39		X					X	X				
MW-2	10/29/96	12:48		X					X	X				
RELINQUISHED BY: (Signature) <u>Randal Wilson</u>					DATE <u>10/30/96</u> TIME <u>12:17</u>		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) <u>Victor Hung</u>				DATE <u>10-30-96</u> TIME <u>12:17</u>			



PRIORITY ENVIRONMENTAL LABS

Precision Environmental Analytical Laboratory

November 01, 1996

PEL # 9610060

HAGEMAN - AGUIAR , INC.

Attn: Randal Wilson

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

Project name: Matheson Trucking

Project location: 2500 Poplar St., - Oakland

Date sampled: Oct 29, 1996

Date submitted: Oct 30, 1996

Date extracted: Oct 30-Nov 01, 1996

Date analyzed: Oct 30-Nov 01, 1996

RESULTS:

SAMPLE I.D.	Gasoline (ug/L)	Diesel (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethyl Benzene (ug/L)	Total Xylene (ug/L)
MW-1	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.
Blank	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Spiked Recovery	87.3%	85.1%	84.7%	112.6%	83.5%	87.7%
Detection limit	50	50	0.5	0.5	0.5	0.5
Method of Analysis	5030 / 8015	3510 / 8015	602	602	602	602

David Duong
Laboratory Director