HAGEMAN-AGUIAR, INC.

Underground Contamination Investigations
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June 22, 1992

GROUNDWATER SAMPLING REPORT

FRANK W. DUNNE COMPANY
1007 41st Street
Oakland, CA

Introduction

On June 10, 1992, the two on-site monitoring wells were sampled for the laboratory analysis for dissolved petroleum constituents. The location of the site is shown in Figure 1, and the locations of the monitoring wells are shown in Figure 2 (site map). In addition to the monitoring well sampling, other tasks included water level measurements for each monitoring well.

Monitoring Well Sampling and Laboratory Analysis

On June 10, 1992, groundwater samples were collected from each of the on-site monitoring wells. Prior to groundwater sampling, each well was purged by pumping approximately 4 to 5 casing volumes of water with a stainless steel air-lift

FIGURE 1.
Site Location Map.

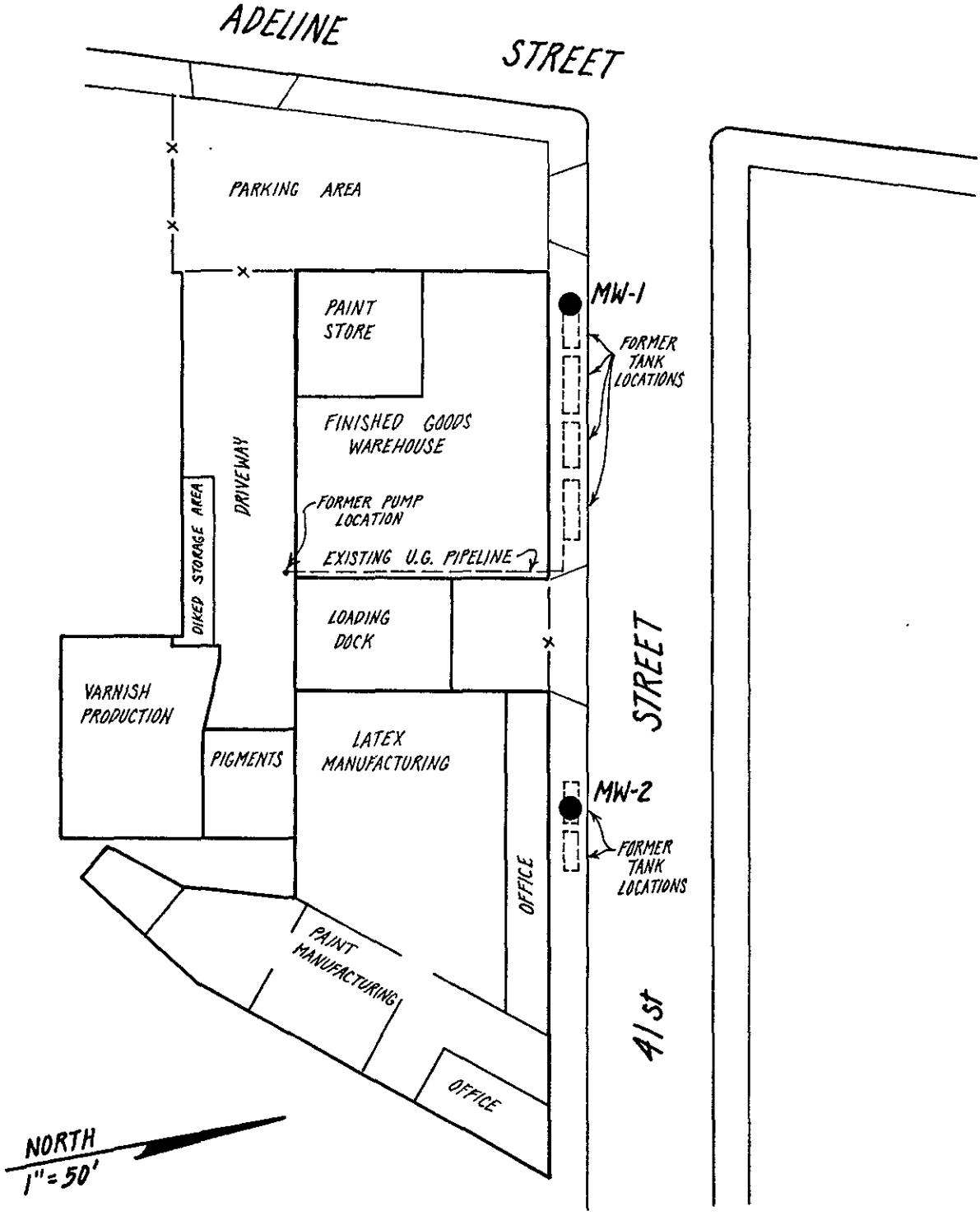

FIGURE 2.
Site Map.

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 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.

Water Level Measurements.

Shallow water table elevations were measured on June 18, 1992. These measurements are shown in Table 1. The top-of-casing elevations were surveyed by Hageman-Aguiar, Inc., with the top-of-casing elevation of well MW-1 arbitrarily set at 100.00 feet. In addition to the two on-site monitoring wells, the one shallow groundwater monitoring well installed by Oakland National Engraving Company on the opposite side of 41st Street was also surveyed and a single depth-to-water measurement was collected. The field work on the Oakland National Engraving property was conducted in the presence of

TABLE 1.

Shallow Water Table Elevations
June 18, 1992

Well	Top of Casing Elevation (feet)	Depth to Water (feet)	Water Table Elevation (feet)
MW-1	100.00	6.09	93.91
MW-2	101.97	7.06	94.91
Oakland National Engraving	102.84	6.50	96.34

Gary D. Leach, vice president/CFO.

Figure 3 presents a contour map for the shallow groundwater table beneath the site. As shown in this figure, the data from these monitoring wells indicate that the shallow groundwater flow beneath the site is calculated as being in a southwesterly direction.

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 Total Petroleum Hydrocarbons as Gasoline, Benzene, Toluene, Ethylbenzene, and Total Xylenes (EPA methods 8015 and 602) and Total Extractable Petroleum Hydrocarbons (EPA method 8015).

Results of Quarterly Monitoring.

Table 2 presents the results of the laboratory analysis of the groundwater samples collected from monitoring wells MW-1, and MW-2. In addition, quality data from the previous round of groundwater sampling is also shown in this table. A Copy of the laboratory certificate for the water sample analyses is included as Attachment B.

For this most recent round of groundwater sampling, dissolved Mineral Spirits were detected in well MW-2 at a concentration of 76 μg/L (ppb). As noted on Table 2, "Mineral Spirits", "Paint Thinner" and "Stoddard Solvent" are synonyms for the same petroleum distillate.

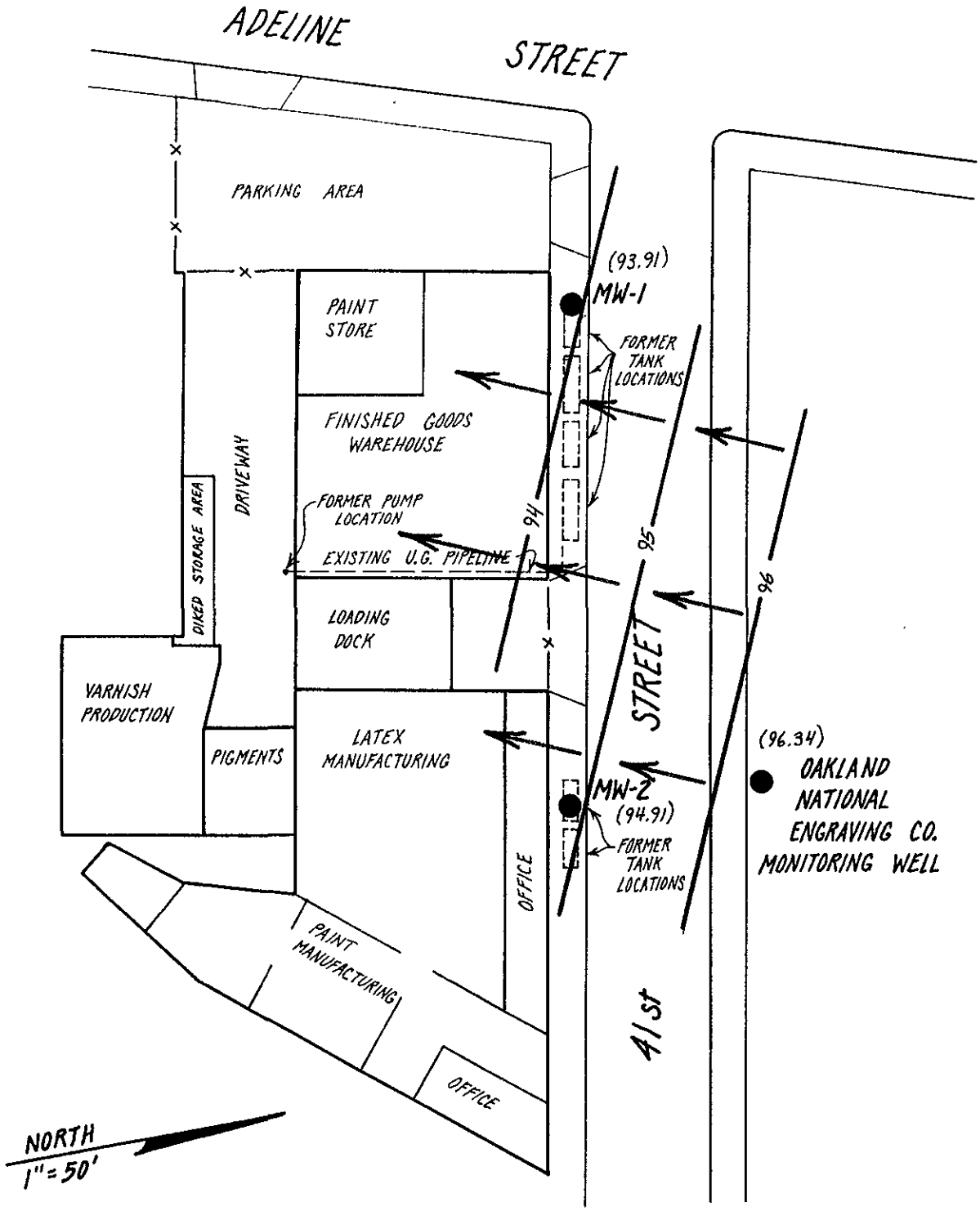

FIGURE 3.
Shallow Groundwater Table
Contour Map. (June 18, 1992)

TABLE 2.

Shallow Groundwater Sampling Results

Well	Date	TPH as Gasoline (ug/L)	TPH as Kerosene (ug/L)	TPH as Mineral Spirits (ug/L)	TPH as Diesel (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethyl-benzene (ug/L)	Total Xylenes (ug/L)	Motor Oil (mg/L)
MW-1	02-21-90 06-10-92	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	0.4 ND	1.3 ND	ND ND
MW-2	02-21-90 06-10-92	ND ND	ND ND	300 76	ND ND	ND ND	ND ND	0.3 ND	1.5 ND	ND ND
Detection Limit		50	50	50	50	0.5	0.5	0.5	0.5	0.5

ND = Not Detected

NOTE: Mineral Spirits = Paint Thinner = Stoddard Solvent

No detectable concentrations of either Gasoline, Kerosene, Diesel, Benzene, Toluene, Ethylbenzene, Total Xylenes or Motor Oil were detected in either of the shallow groundwater samples.

Waste Generation

All water removed from the well during purging was drummed and stored on-site until the results of laboratory analyses 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 it should be transported as a hazardous liquid waste under proper manifest to an appropriate TSD facility for treatment and disposal. The disposal of wastewater is the responsibility of the property owner (waste generator), and is beyond the scope of work as described in this report.

GROUNDWATER SAMPLING REPORT
FRANK W. DUNNE COMPANY
1007 41st Street, Oakland, CA

June 22, 1992

Gary Aguiar **RCE 34262**

Bruce Hageman

ATTACHMENT A

WELL SAMPLING LOGS

WELL SAMPLING LOG

Project/No. DUNNE PAINTING

Page 1 of 2

Site Location EMERYVILLE

Date 6-10-92

Well No. MW 1

Time Began 1210
Completed 1315

Weather CLEAR / 75°F

EVACUATION DATA

Description of Measuring Point (MP) WELL BOX AT GRADE

Total Sounded Depth of Well Below MP 12.98

Diameter of Casing 4"

- Depth to Water Below MP 5.96

= Water Column in Well 7.02

Gallons in Casing 4.5 + Annular Space (30% porosity) 4.0 = Total Gallons 8.5

Gallons Pumped Prior to Sampling 35

Evacuation Method AIRLIFT COMPRESSOR PUMP

SAMPLING DATA / FIELD PARAMETERS

Inspection for Free Product: NO APPARENT PRODUCT.
(thickness to 0.1 inch, if any)

Time	1210	1230	1242	1250
Gals Removed	5	15	25	35
Temperature	19.4	19.0	18.5	18.4
Conductivity	650	650	600	650
pH	7.4	7.6	7.6	7.5
Color / Odor	CLR/LT. HC	CLR/LT. HC	CLR/NO	CLR/NO
Turbidity	LOW	LOW	LOW	LOW

Comments: NONE

WELL SAMPLING LOG

Project/No. DUNNE PAINTING

Page 2 of 2

Site Location EMERYVILLE

Date 6-10-92

Well No. MW 2

Time Began 1135
Completed 1300

Weather CLEAR / 75°F

EVACUATION DATA

Description of Measuring Point (MP) WELL BOX AT GRADE

Total Sounded Depth of Well Below MP 12.82

Diameter of Casing 4"

- Depth to Water Below MP 7.03

= Water Column in Well 5.79

Gallons in Casing 3.7 + Annular Space (30% porosity) 3.3 = Total Gallons 7.0

Gallons Pumped Prior to Sampling 30

Evacuation Method AIRLIFT COMPRESSOR PUMP

SAMPLING DATA / FIELD PARAMETERS

Inspection for Free Product: NO APPARENT PRODUCT
(thickness to 0.1 inch, if any)

Time	1135	1142	1150	1156
Gals Removed	5	15	25	30
Temperature	19.3	19.4	19.3	19.2
Conductivity	550	500	500	500
pH	7.2	7.0	7.0	7.0
Color / Odor	Grey/HC	Grey/Ft. HC	Grey/NO	Grey/NO
Turbidity	MED.	LOW	LOW	LOW

Comments: NONE

ATTACHMENT B

ANALYTICAL RESULTS: GROUNDWATER

PRIORITY ENVIRONMENTAL LABS

Precision Environmental Analytical Laboratory

June 15, 1992 PEL # 920622

HAGEMAN - AGUIAR

Attn: Gary Aguiar
Re: Two water samples for Gasoline/BTEX and TEPH analyses.

Project name: Frank W. Dunne
Project location: 1007 41th St. -Oakland

Date sampled:June 10, 1992 Date submitted:June 11, 1992
Date extracted:June 11-14, 1992 Date analyzed:June 11-14, 1992

RESULTS:

SAMPLE I.D.	Paint Thinner (ug/L)	Gasoline (ug/L)	Diesel (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethyl Benzene (ug/L)	Total Xylenes (ug/L)	Kerosene (ug/L)	Motor Oil (mg/L)
MW 1	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
MW 2	76	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	95.5%	86.4%	92.9%	88.2%	90.7%	94.3%	96.6%	----	----
Detection limit	50	50	50	0.5	0.5	0.5	0.5	50	0.5
Method of Analysis	3510 / 8015	5030 / 8015	3510 / 8015	602	602	602	602	3510 / 8015	3510/ 8015

* Mineral Spirits = Stoddard Solvents = Paint Thinner

David Duong
Laboratory Director

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

PEL # 920622 (3 of 3)

INV # 22863

CHAIN OF CUSTODY RECORD

PROJECT NAME AND ADDRESS:
FRANK DUNNE
1007 41ST ST.
OAKLAND, 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	BTEX	TEPH				REMARKS
MW 1	6-10-92	1245		X	EMERYVILLE	X	X	X				
MW 2	6-10-92	1200		X	& OAKLAND	X	X	X				

RELINQUISHED BY: (Signature)	DATE 6-11-92 TIME 0845	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 06/11/92 TIME 9:50