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F A X T R A N S M I S S I O N

DATE: OCTOBER 19, 1999

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TO: SUSAN HUGO

AGENCY: ALAMEDA COUNTY HEALTH SERVICES

FAX NUMBER: 510 337-9335

FROM: JEFFREY KANE

MEMO:

Following is the report by Hageman-Aguilar entitled *Report of Limited Soil Investigation* dated June 22, 1992. I have left but the soil boring logs and chain of custody.

*LOP 608
1007 4th St. Oakland
10/19/99 talked to Ron Block re WP; for Alvario's Point
Hydro punch; preferential pathways along Adeline
St.*

HAGEMAN-AGUIAR, INC.

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Groundwater Consultants, Environmental Engineering*

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REPORT OF LIMITED SOIL INVESTIGATION

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

June 22, 1992

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ATTACHMENT A -- Boring Logs

ATTACHMENT B -- Analytical Results: Soil

I. INTRODUCTION

Hageman-Aguilar, Inc. has conducted a limited soil investigation at the Frank W. Dunne paint manufacturing facility located at 1007 41st Street in Oakland, California. The location of the site is shown in Figure 1. At the request of the current property owner, the soil investigation was conducted in order to assess the environmental conditions at the site, with specific emphasis placed upon determining if there has been, to date, any environmental impact upon the near-surface soils beneath the site due to the historical operation of the facility. Although several of the soil borings extended to the shallow groundwater table, laboratory analyses were limited to those samples collected from above the saturated zone.

II. SITE DESCRIPTION

Vicinity Description and Hydrogeologic Setting

The soils beneath the site consist of Quaternary Alluvium overlying Franciscan bedrock (Geologic Map of California, San Francisco Sheet, State of California Division of Mines and Geology, 1980). Bedrock is likely to occur at a depth of greater than 50 feet beneath the site. On this portion of the low-lying Bay Plain in close proximity to San Francisco Bay, the soils beneath the site can be expected to consist primarily of fine grain soils (silts and clays), with the majority of shallow groundwater movement occurring in thin sand and gravel layers and/or "stringers".

Based upon the surface topography, as well as the various hydrologic features shown on the vicinity map, the general regional shallow groundwater can be expected to flow from the Berkeley Hills (area of groundwater recharge) and move westward and southwestward toward San Francisco Bay (area of discharge). On June 17, 1992, Hageman-Aguilar, Inc., surveyed the two existing on-site monitoring wells along with the one shallow groundwater monitoring well installed by Oakland National Engraving Company on the opposite side of 41st Street. The data from these monitoring wells indicate that the shallow groundwater flow beneath the site is calculated as being in a southwesterly direction, consistent with the expected regional shallow groundwater movement. The results of the shallow groundwater elevation measurements are presented in the "Report of Groundwater Sampling" by Hageman-Aguilar, Inc., dated June 22, 1992.

Site Description

A map of the site is shown in Figure 2. This map shows the layout of the facility, along with the former locations of six underground storage tanks. All six of these tanks have subsequently been removed. At the time of the tank removals and excavation backfilling, the two shallow groundwater monitoring wells MW-1 and MW-2 were installed. At the present time, the entire site is covered by asphalt or concrete.

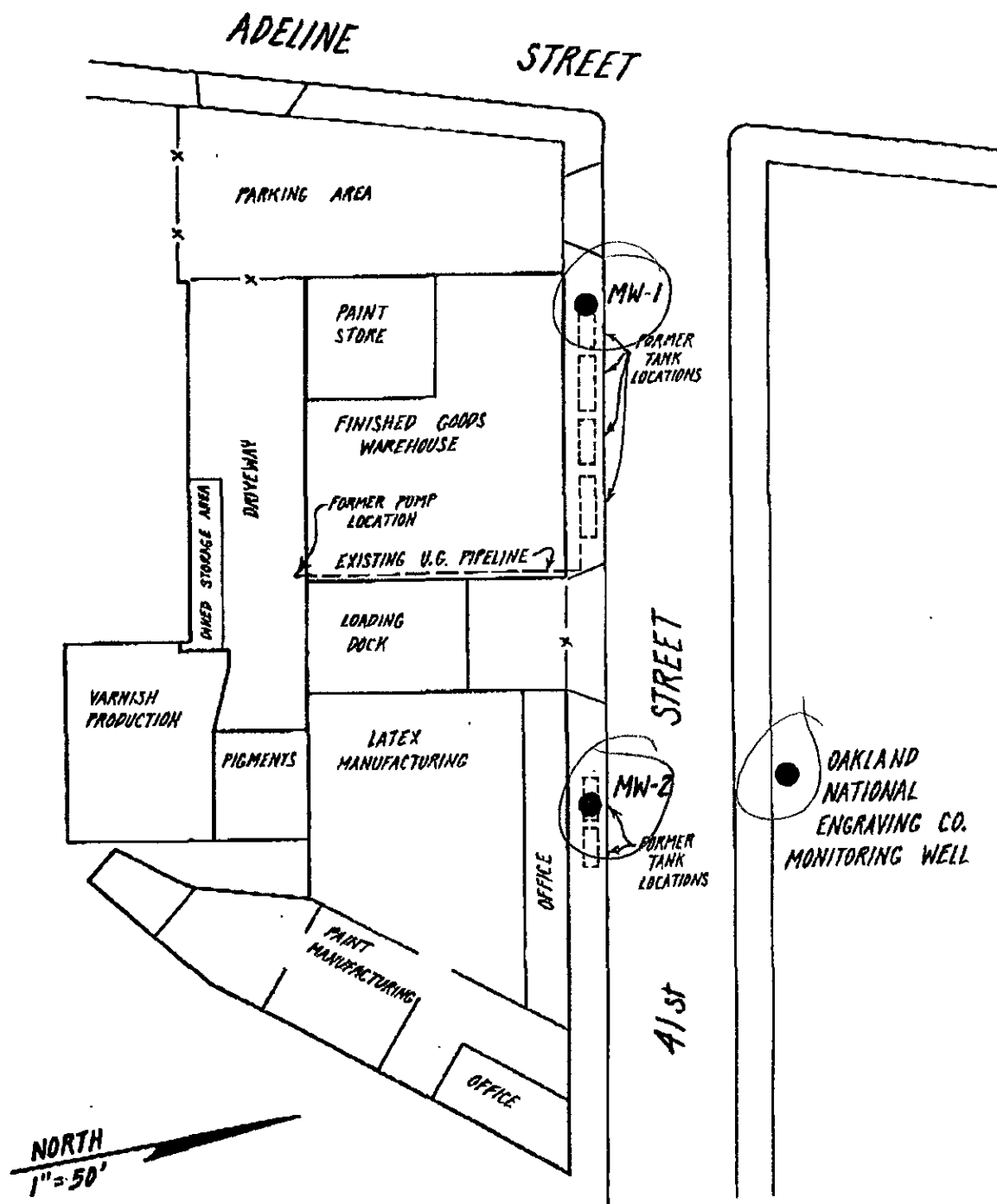


FIGURE 2.
Site Map.

III. FIELD WORK

Soil Sampling

On June 10, 1992, six soil borings were drilled on the property. The locations of the soil borings are shown on Figure 3.

Borings B-1, B-2, B-3 and B-4 were drilled by KL Drilling of Alameda, California, with a trailer-mounted drill rig using 4-inch solid stem augers. Due to access problems, borings B-5 and B-6 were hand-augered by Hageman-Aguiar personnel. At each soil boring location, soil samples for chemical analyses were collected at various depths by driving a split-barrel sampler fitted with brass liners. All samples were immediately placed on ice, then transported under chain-of-custody to the laboratory following the completion of the field work.

Boring Logs

The soil sampling operation was conducted under the supervision of Gary Aguiar (Registered Civil Engineer #34262). The boring logs are included as Attachment A.

As shown by the boring logs, the site is underlain by varying amounts of silt, clayey silty, and clay. It is known from recent groundwater sampling that the shallow groundwater table is present under 41st Street at a depth of approximately 6 feet below ground surface. Due to the raised elevation of the front parking area, as well as the finished grade of all of the on-site improvements, the shallow

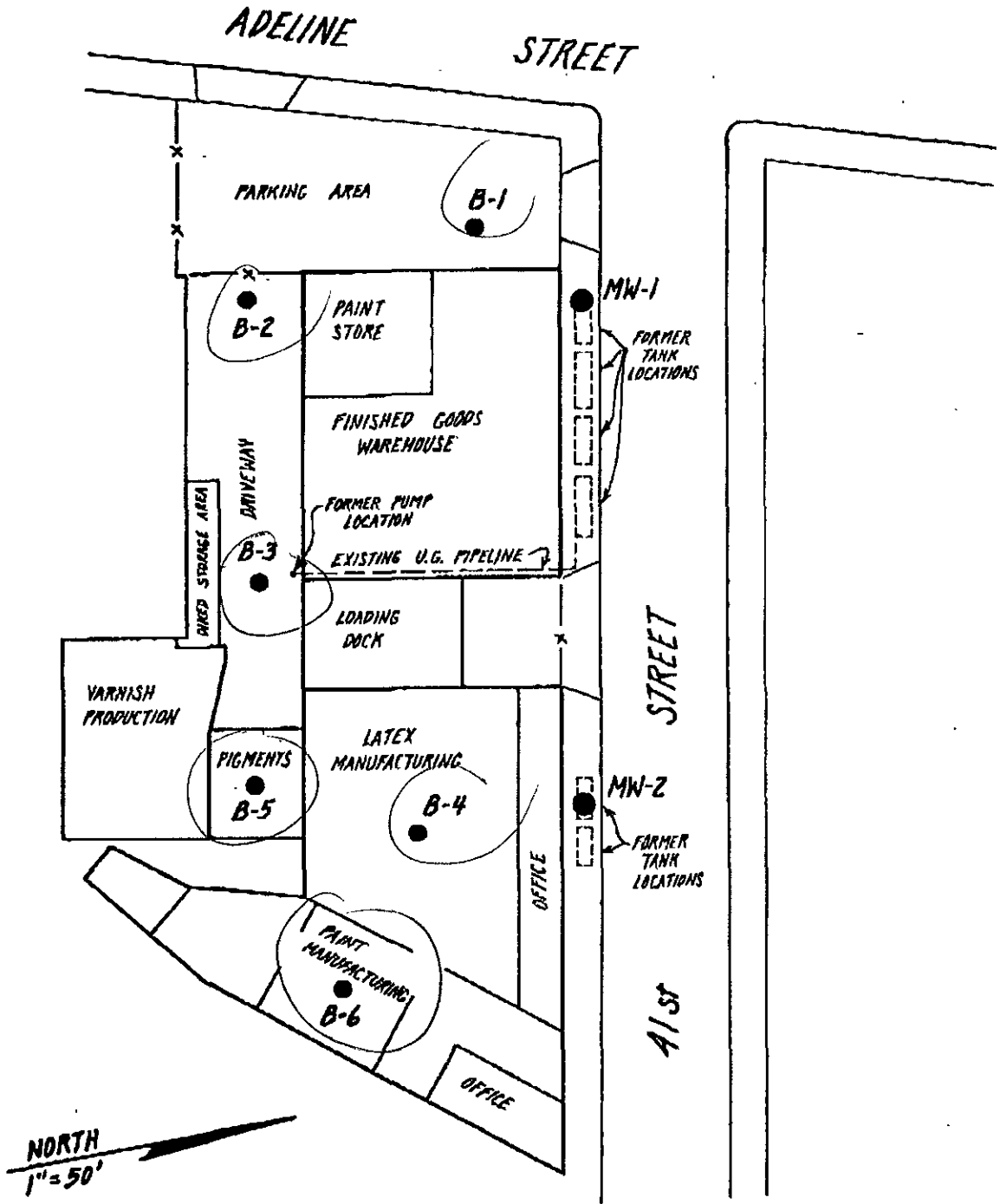


FIGURE 3.
Soil Boring Locations.

groundwater was encountered in borings B-1 and B-2 at depths of approximately 12 feet below the ground surface. As noted on the logs of Borings B-1 and B-2, the soil above the shallow groundwater had a natural appearance, with no apparent chemical odor. When the shallow groundwater was encountered at both of these locations, however, apparent Paint Thinner/Mineral Spirits odor was noted. In addition, the grey coloration of the soil immediately above the water table is indicative of the presence of petroleum hydrocarbons.

Boring B-3 was located in close proximity to the former location of an above-ground pump used to transport Mineral Spirits from the underground tanks to the various on-site production areas. The soil sample collected at the 7-foot depth had a slight petroleum odor at this location. When the shallow groundwater was encountered at this location, the soil had a natural appearance, with no apparent odor.

At boring B-4, the soil above the shallow groundwater had a natural appearance, with no apparent chemical odor. The soil sample collected at a depth of 11 feet exhibited a slight petroleum odor that appears to be related to the presence of shallow groundwater.

Borings B-5 and B-6 were drilled by hand-augering, and were each completed to somewhat more shallow depths. At both of these locations, the samples had a natural appearance, with no apparent chemical odor. The samples collected from the 7-foot depths each had petroleum odor, with the sample from boring B-6 having a particularly strong Paint Thinner/Mineral Spirits odor. Boring B-6 was located in a particularly old portion of the facility, and the apparent odor at depth appears to be related to the presence of the shallow groundwater beneath the site.

Borehole Sealing

Following the completion of the soil sampling operation, each boring was filled with neat cement grout.

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 soil samples were analyzed for Total Petroleum Hydrocarbons as Gasoline, Benzene, Toluene, Ethylbenzene, and Total Xylenes (EPA method 8015) and Total Extractable Petroleum Hydrocarbons (EPA method 8015) with specific quantification for Paint Thinner (Mineral Spirits).

Waste Generation

All drill cuttings were stockpiled on-site and covered with plastic sheeting, until the results of laboratory analyses were obtained. Depending upon these results, the cuttings should be disposed of as either a non-hazardous waste, or else transported as a hazardous waste under proper manifest to an appropriate TSD facility. In the case of contaminated soil, it may be possible to remove residual petroleum hydrocarbons concentrations by aeration under permit from the Bay Area Air Quality Management District (BAAQMD), and thereby facilitate disposal as a non-hazardous waste. The disposal of the drill cuttings is the responsibility of the property owner (waste generator), and is beyond the scope of work as described in this report.

IV. RESULTS OF INVESTIGATION

Analytical Results

Table 1 presents the results of the laboratory analysis of the soil samples collected from the six soil borings.

As shown in Table 1, the only petroleum hydrocarbon detected was Mineral Spirits. As noted on Table 1, the terms "Mineral Spirits", "Paint Thinner" and "Stoddard Solvent" are synonymous for the same petroleum distillate. No detectable concentrations of Benzene or any other petroleum hydrocarbons were detected in any of the soil samples that were analyzed.

A copy of the laboratory certificate is included as Attachment B.

Discussion of Results

As shown in Table 1, the analytical results appear to correspond with the field observations (boring logs) discussed in Section III. All of the near-surface soils encountered beneath the site appear to be unaffected by any subsurface petroleum contamination. That is, the results of this limited soil investigation indicate no subsurface contamination caused by historical above-ground activities, such as surface spillage of chemicals.

The qualitative results (odor, color, etc.) for the deeper samples, along with the analytical results for boring B-6, reflect a regional groundwater quality problem that appears

TABLE 1. Soil Sampling Results

Boring	Depth (feet)	TPH as Gasoline (mg/Kg)	TPH as Kerosene (mg/Kg)	TPH as Mineral Spirits (mg/Kg)	TPH as Diesel (mg/Kg)	Benzene (ug/Kg)	Toluene (ug/Kg)	Ethylbenzene (ug/Kg)	Total Xylenes (ug/Kg)	Motor Oil (mg/Kg)
B-1	4	ND	ND	ND	ND	ND	ND	ND	ND	ND
	7	ND	ND	ND	ND	ND	ND	ND	ND	ND
B-2	4	ND	ND	ND	ND	ND	ND	ND	ND	ND
	7	ND	ND	ND	ND	ND	ND	ND	ND	ND
B-3	4	ND	ND	4.9	ND	ND	ND	ND	ND	ND
	7	ND	ND	1.5	ND	ND	ND	ND	ND	ND
B-4	4	ND	ND	ND	ND	ND	ND	ND	ND	ND
	7	ND	ND	ND	ND	ND	ND	ND	ND	ND
B-5	4	ND	ND	ND	ND	ND	ND	ND	ND	ND
	7	ND	ND	17	ND	ND	ND	ND	ND	ND
B-6	4	ND	ND	3.4	ND	ND	ND	ND	ND	ND
	7	ND	ND	620	ND	ND	ND	ND	ND	ND
Detection Limit		1.0	1.0	1.0	1.0	5.0	5.0	5.0	5.0	10

ND = Not Detected

NOTE: Mineral Spirits = Paint Thinner = Stoddard Solvent

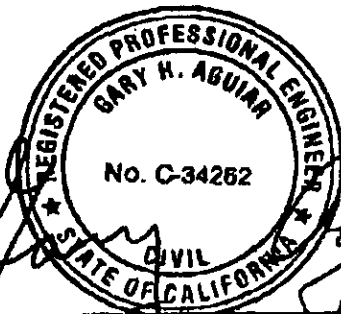
to exist in the vicinity of the site. The characterization of the shallow groundwater quality in the vicinity of the subject site is beyond the scope of this limited soil investigation and may possibly be related to either 1) one or more up-gradient facilities that have historically stored and used Mineral Spirits, Paint Thinner and/or Stoddard Solvent or 2) residual concentrations of Mineral Spirits that may still be present in the shallow groundwater due the six underground storage tanks that were previously present on the subject site.

Conclusions

The limited data generated by this investigation indicate that there has been, to date, no environmental impact upon the near-surface soils beneath the site caused by historical above-ground activities, such as surface spillage of chemicals.

REPORT OF LIMITED SOIL INVESTIGATION
FRANK W. DUNNE COMPANY
1007 41st Street, Oakland, CA

June 22, 1992



Gary Aguiar

ECE 34262

EXP 9-30-95

Bruce Hageman
Bruce Hageman



PRIORITY ENVIRONMENTAL LABS

Precision Environmental Analytical Laboratory

June 15, 1992

PEL # 920622

HAGEMAN - AGUIAR

Attn: Gary Aguiar

Re: Twelve soil 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

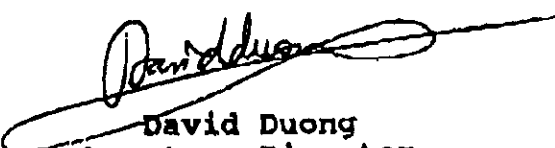
Date extracted: June 11-14, 1992

Date analyzed: June 11-14, 1992

RESULTS:

SAMPLE I.D.	Paint Thinner (mg/Kg)	Gasoline (mg/Kg)	Diesel (mg/Kg)	Benzene (ug/Kg)	Toluene (ug/Kg)	Ethyl Benzene (ug/Kg)	Total Xylenes (ug/Kg)	Kerosene (mg/Kg)	Motor Oil (mg/Kg)
B-1-4'	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
B-1-7'	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
B-2-4'	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
B-2-7'	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
B-3-4'	4.9	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
B-3-7'	1.5	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
B-4-4'	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
B-4-7'	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
B-5-4'	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
B-5-7'	17	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
B-6-4'	3.4	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
B-6-7'	620	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	92.3%	94.8%	104.2%	82.7%	81.3%	92.5%	87.0%	91.6%	----
Duplicate									
spiked									
Recovery	94.8%	105.6%	91.5%	101.1%	105.9%	100.2%	102.4%	----	----
Detection									
limit	1.0	1.0	1.0	5.0	5.0	5.0	5.0	1.0	10
Method									
of	3550 /	5030 /	3550 /					3550 /	3550 /
Analysis	8015	8015	8015	8020	8020	8020	8020	8015	8015

* Mineral Spirits = Stoddard Solvents = Paint Thinner


David Duong
Laboratory Director