

2740 98th Avenue  
Oakland, CA 94605

Freeway  
Station & Service

(510) 562-4505

7-26-97

To: Alameda County Health Agency

From: Kiyoumars- Ghofrani

Dear Miss Juliet Shin

Enclosed is a copy of the quarterly ground water monitoring  
from Soil Tech Engineering for my site at 2740 98th Ave Oakland.  
for your any decision

Sincerely



K. Ghofrani

97 JUL 29 PM 2:54  
ENVIRONMENTAL  
PROTECTION

**QUARTERLY GROUNDWATER  
MONITORING AND SAMPLING  
AT THE PROPERTY  
LOCATED AT 2740 98<sup>TH</sup> AVENUE  
OAKLAND, CALIFORNIA  
MAY 5, 1997**

**PREPARED FOR:  
MR. KIYOUMARS GHOFrani  
FREEWAY STATION AND SERVICE  
2740 98<sup>TH</sup> AVENUE  
OAKLAND, CALIFORNIA 94605**

**BY:  
SOIL TECH ENGINEERING, INC.  
1761 JUNCTION AVENUE  
SAN JOSE, CALIFORNIA 95112**

**SOIL TECH ENGINEERING, INC.**

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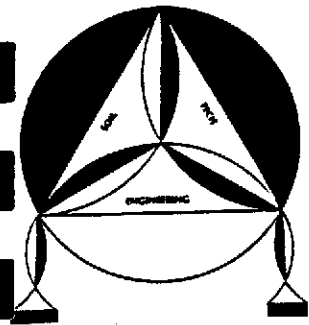
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# SOIL TECH ENGINEERING, INC.

Environmental & Geotechnical Consultants

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May 5, 1997

File No. 7-93-556-SI

**Mr. Kiyoumars Ghofrani**  
Freeway Station and Service  
2740 98<sup>th</sup> Avenue  
Oakland, California 94605

**SUBJECT: QUARTERLY GROUNDWATER MONITORING  
AND SAMPLING AT THE PROPERTY**

Located at 2740 98th Avenue, in  
Oakland, California

Dear Mr. Ghofrani:

This report presents the results of quarterly groundwater monitoring and sampling conducted by Soil Tech Engineering, Inc. (STE), on April 21, 1997, at the subject site (Figure 1).

There are six monitoring wells (STMW-1 through STMW-6) and an existing water well with a 7-inch metal casing (W-4) on-site. The location of the wells are shown in Figure 2. This quarterly monitoring and sampling was conducted in accordance with STE's Standard Operation Procedures (SOP) and Alameda County Health Services Agency (ACHSA) guidelines.

**BACKGROUND:**

There are four underground storage tanks located on the subject property. A Phase I Environmental Site Assessment for the subject site was conducted by Northwest Envirocon, Inc. (NE) of Sacramento. Details of the said site assessment is described in a report, dated

July 22, 1992, prepared by Northwest Envirocon, Inc. According to NE's report, the building on-site is 26 years old. It has probably been used as an automobile service station since 1966. Based on information obtained from NE's report, there are two 10,000 gallon tanks and one 5,000 gallon tank used for the storage of gasoline, and one 500 gallon tank used for the storage of waste oil.

According to the same report, the three gasoline storage tanks were installed in July of 1975 and are constructed of fiberglass. The reason new fiberglass tanks were installed is not known. The waste oil tank is constructed of metal. An installation date for this tank could not be confirmed. These tanks are tested yearly for tightness by American River Testing of Sacramento. Tightness refers to a precision test which determines the integrity of the tank. This test is required annually by the State of California.

According to NE's report, in May of 1989, there was an accidental spill of an unknown quantity of waste oil during removal of waste oil by Evergreen Environmental Services. The waste oil drained into the exposed soil, leached onto/into a collection pipe that emptied into Stanley Avenue and drained down Stanley Avenue approximately fifty feet. In response to this spill, the following actions were taken: The waste oil was removed by U.S. Waste Oil Group, and three top soil samples were sent to Brown and Caldwell Laboratories for Total Oil & Grease (TOG) analysis. Three grab soil samples were taken at the Stanley Street fence line and were composited into one sample. Composite soil result showed TOG concentration to be 170 milligrams per kilogram (mg/Kg). No further remediation was performed for this spill.

On June 18, 1993, E&G Construction removed the product pipe-line and conducted soil sampling in the pipeline trenches. Eight soil samples were collected from a depth of approximately 3.5 feet below grade, under the supervision of Alameda County Health Department inspector, Mr. Ron Owcarz. Five of the shallow soil samples detected elevated levels of Total Petroleum Hydrocarbons as gasoline (TPHg) ranging from 310 mg/Kg to a maximum of 2,900 mg/Kg. E&G construction excavated additional soil from three locations (1, 4 & 5) where TPHg levels were 550 mg/Kg, 1,900 mg/Kg and 2,900 mg/Kg,

respectively, to a depth of approximately 12 to 13 feet below grade. Three confirmation soil samples (A-1, B-1 and C-1) were collected on July 1 and 2, 1993. Two of the three soil samples detected no TPHg, and one sample detected TPHg level of 15 mg/Kg. The lateral extent of TPHg contamination or impact to groundwater was not evaluated at that time.

Alameda County Health Care Services Agency (ACHCSA) requested a preliminary site assessment in a letter, dated September 1, 1993. However, in a letter dated October 5, 1993, ACHCSA agreed to conduct 4 exploratory soil borings in the vicinity of the contaminated areas and to collect one grab water sample to assess whether the ground-water has been impacted.

Soil Tech Engineering, Inc. (STE) was retained to conduct a preliminary site assessment near the product lines excavation area. In March 1994, four soil borings were drilled near the product line area. Groundwater was encountered between 6 to 12 feet below grade. A total of ten soil samples were collected from the four borings, and one water sample was collected from boring 1. The water samples detected low to moderate elevated levels of Total Petroleum Hydrocarbons as gasoline (TPHg) and BTEX. Five out of ten soil samples also detected low to elevated levels of TPHg. The details of the soil investigation is described in STE's report dated April 21, 1994, titled "Preliminary Site Assessment at Freeway Station and Service Property".

Since elevated concentrations of TPHg and Benzene were detected in the groundwater samples collected from boring 1, further investigation was requested by the Alameda County Health Care Services Agency (ACHCSA) in a letter dated July 8, 1994.

STE was retained by Mr. Ghofrani to conduct further investigation as requested by ACHCSA. A work plan, dated December 5, 1994, was prepared describing the scope of work which included drilling and installation of three shallow monitoring wells (STMW-1 to STMW-3), well development, soil and water sampling, laboratory analysis and preparation of a technical report. Drilling and installation of three wells (STMW-1 to STMW-3) was conducted in February 1995. Soil results from the borings detected TPHg and BTEX below laboratory detection limit. Levels of TPHg and BTEX were also below laboratory detection limit in the water samples. STE's report dated March 8, 1995 describes the details of the environmental site assessment.

On January 31, 1996, STE's staff monitored the four on-site wells to measure water depth and check for the presence of sheen and/or odor. There was no water in wells STMW-2 and STMW-3. No sheen or odor was noted in the other two wells (STMW-1 and W-4). Table 1 summarizes the depth to groundwater measurements and observations made.

Following groundwater monitoring, the on-site wells were purged at least five well volumes and sampled in accordance with STE's Standard Operation Procedures (see Appendix "C"), which contain State and Local guidelines for sampling monitoring wells. The samples were submitted to a California State-Certified laboratory for analyses, accompanied by appropriate chain-of-custody.

Groundwater elevation data were used to determine groundwater flow direction. Table 1 summarizes the groundwater elevations. The groundwater gradient beneath the site appears to be disrupted by a branch of the Hayward fault that may traverse the site. The groundwater surface elevation appears to be anomalously high in well STMW-1 and anomalously low in well STMW-3.

Using initial data from three wells (STMW-1 to STMW-3), the gradient appears to be steep to the east. However, the existing well W-4 at southeast of dry well STMW-2 and east of dry well STMW-3 has groundwater elevation higher than both wells STMW-2 and STMW-3 on January 31, 1996.

Total Petroleum Hydrocarbons as gasoline (TPHg) and BTEX were below laboratory detection limit in monitoring wells STMW-1 and MW-4. No sheen or odor was noted in monitoring wells STMW-1 and MW-4. TPHg and BTEX concentrations were below laboratory detection limit in the two monitoring wells. Monitoring wells STMW-2 and STMW-3 were not sampled because the wells were dry.

#### **SCOPE OF PRESENT WORK:**

- Measure depth-to-water table and monitor for presence of any sheen and/or odor for the on-site monitoring wells STMW-1 to STMW-6 and water well W-4.



- Purge each well prior to sampling.
- Sample monitoring wells STMW-1, STMW-2, STMW-4, STMW-5, STMW-6 and water well W-4 for laboratory analyses.
- Submit all six water samples to a State-Certified laboratory for analyses of Total Petroleum Hydrocarbons as gasoline (TPHg), Benzene, Toluene, Ethylbenzene, Total Xylenes (BTEX) and Methyl Tertiary Butyl Ether (MTBE). In addition, one water sample (STMW-6) submitted for analysis of Total Petroleum Hydrocarbons as diesel (TPHd) and Total Oil & Grease (TOG).
- Review results and prepare a report of the investigation.

## **FIELD ACTIVITIES:**

### *GROUNDWATER MONITORING:*

On April 21, 1997, STE's staff monitored the six on-site wells and one water well to measure water depth and check for the presence of sheen and/or odor. There was no water in well STMW-3. No sheen or odor were noted in the monitoring wells STMW-1, STMW-2, STMW-5, STMW-6 and W-4. Very light petroleum odor was noted in monitoring well STMW-4. The depth to groundwater ranged from 7.29 feet to 22.26 feet below the well casing. Table 1 summarizes the depth-to-groundwater measurements and observation made.

### *GROUNDWATER SAMPLING:*

Following groundwater monitoring, the on-site wells were purged at least five well volumes and sampled in accordance with STE's Standard Operation Procedures (see Appendix "C"), which contain State and Local guidelines for sampling monitoring wells. The samples were submitted to a California State-Certified laboratory for analyses, accompanied by appropriate chain-of-custody.

## **GROUNDWATER FLOW DIRECTION:**

Groundwater elevation data were used to determine groundwater flow direction. Table 1 summarizes the groundwater elevations. The groundwater flow direction beneath the site was in southeasterly direction as of April 21, 1997 (Figure 2).

## **ANALYTICAL RESULTS:**

Monitoring wells STMW-1, STMW-2, STMW-5, STMW-6 and water well W-4 detected TPHg and BTEX below laboratory detection limit. Monitoring well STMW-4 detected TPHg at 0.98 mg/L and BTEX at (0.0068 mg/L; 0.0008 mg/L; 0.0022 mg/L and 0.0045 mg/L), respectively. Monitoring well STMW-6 detected TPHd and TOG concentrations below laboratory detection limit. All six water samples in the monitoring wells detected MTBE concentration below laboratory detection limit.

## **SUMMARY:**

No sheen or odor were noted in on-site monitoring wells (STMW-1, STMW-2, STMW-5 and STMW-6) and 1 water well (W-4). Very light petroleum odor was detected in monitoring well STMW-4. Monitoring wells STMW-1, STMW-2, STMW-5, STMW-6 and water well W-4 detected TPHg and BTEX concentrations were below laboratory detection limit. Low levels of TPHg and BTEX were detected in monitoring well STMW-4. Monitoring well STMW-6 detected TPHd and TOG levels below laboratory detection limit. MTBE concentrations was below laboratory detection limit in all six wells. Since monitoring well STMW-3 was dried, STE's staff did not measure depth-to-water, monitored for presence of sheen and/or odor or sampled.

## **RECOMMENDATIONS:**

Since dissolved hydrocarbons continue to be present in one out of seven wells, STE recommends continuation of quarterly monitoring and sampling of the wells.

A copy of this report should be sent to Alameda County Health Care Services Agency (ACHCSA) and California Regional Water Quality Control Board--San Francisco Bay Region (CRWQCB--SFBR).

### **LIMITATIONS:**

This report and the associated work has been provided in accordance with the general principles and practices currently employed in the environmental consulting profession. The contents of this report reflect the conditions of the site at this particular time. The findings of this reports are based on:

- 1) The observations of field personnel.
- 2) The results of laboratory analyses performed by a state-certified laboratory.

It is possible that variations in the soil and groundwater could exist beyond the points explored in this investigation. Also, changes in groundwater conditions of a property can occur with the passage of time due to variations in rainfall, temperature, regional water usage and other natural processes or the works of man on this property or adjacent properties.

This report is issued with the understanding that it is the responsibility of the owner or his/her representative to ensure that the information and recommendations contained herein are called to the attention of the Local Environmental Agency.

Services performed by STE have been in accordance with generally accepted environmental professional practices for the nature and conditions of the work completed in the same or similar localities, at the time the work was performed. This report is not meant to represent a legal opinion. No other warranty, express or implied, is made.

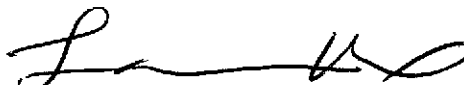
If you have any questions or require additional information, please contact our office at (408) 441-1881 at your convenience.

Sincerely,

**SOIL TECH ENGINEERING, INC.**



NOORI AMELI  
PROJECT ENGINEER



LAWRENCE KOO, P. E.  
C. E. #34928



FRANK HAMEDI-FARD  
GENERAL MANAGER

**TABLE 1**  
**GROUNDWATER MONITORING DATA (feet)**  
**AND ANALYTICAL RESULTS (mg/L)**

| Date     | Well No./<br>Elevation | Depth of<br>Well | Depth to<br>Perf. | Depth to<br>Water | GW<br>Elev. | Well Observation | TPHg | B  | T  | E  | X  | MTBE | TOG |
|----------|------------------------|------------------|-------------------|-------------------|-------------|------------------|------|----|----|----|----|------|-----|
| 2/23/95  | STMW-1<br>(101.33)     | 20               | 5                 | 6.77              | 94.56       | No sheen or odor | ND   | ND | ND | ND | ND | NA   | NA  |
| 7/26/95  |                        |                  |                   | 13.87             | 87.46       | No sheen or odor | ND   | ND | ND | ND | ND | NA   | NA  |
| 10/19/95 |                        |                  |                   | 16.35             | 84.98       | No sheen or odor | ND   | ND | ND | ND | ND | NA   | NA  |
| 1/31/96  |                        |                  |                   | 5.43              | 95.90       | No sheen or odor | ND   | ND | ND | ND | ND | NA   | NA  |
| 9/09/96  |                        |                  |                   | 18.89             | 82.44       | No sheen or odor | ND   | ND | ND | ND | ND | ND   | NA  |
| 12/17/96 |                        |                  |                   | 7.33              | 94.00       | No sheen or odor | ND   | ND | ND | ND | ND | ND   | NA  |
| 4/21/97  |                        |                  |                   | 17.43             | 83.90       | No sheen or odor | ND   | ND | ND | ND | ND | ND   | NA  |
| 2/23/95  | STMW-2<br>(98.89)      | 20               | 5                 | 17.19             | 81.70       | No sheen or odor | ND   | ND | ND | ND | ND | NA   | NA  |
| 7/26/95  |                        |                  |                   | 18.39             | 80.50       | No sheen or odor | ND   | ND | ND | ND | ND | NA   | NA  |
| 10/19/95 |                        |                  |                   | Dry               | N/A         | N/A              | NA   | NA | NA | NA | NA | NA   | NA  |
| 1/31/96  |                        |                  |                   | Dry               | N/A         | N/A              | NA   | NA | NA | NA | NA | NA   | NA  |
| 9/09/96  |                        |                  |                   | Dry               | N/A         | N/A              | NA   | NA | NA | NA | NA | NA   | NA  |
| 12/17/96 |                        |                  |                   | Dry               | N/A         | N/A              | NA   | NA | NA | NA | NA | NA   | NA  |

**TPHd** - Total Petroleum Hydrocarbons as diesel  
**BTEX** - Benzene, Toluene, Ethylbenzene, Total Xylenes  
**TOG** - Total Oil & Grease  
**ND** - Not Detected  
**GW Elev.** - Groundwater Elevation

**TPHg** - Total Petroleum Hydrocarbons as gasoline  
**MTBE** - Methyl Tertiary Butyl Ether  
**N/A** - Not Applicable  
**NA** - Not Analyzed  
**Perf.** - Perforation

**SOIL TECH ENGINEERING, INC.**

**TABLE 1 CONT'D**  
**GROUNDWATER MONITORING DATA (feet)**  
**AND ANALYTICAL RESULTS (mg/L)**

| Date     | Well No./<br>Elevation | Depth of<br>Well | Depth to<br>Perf. | Depth to<br>Water | GW<br>Elev. | Well Observation               | TPHg  | B  | T      | E      | X      | MTBE | TOG |
|----------|------------------------|------------------|-------------------|-------------------|-------------|--------------------------------|-------|----|--------|--------|--------|------|-----|
| 4/21/97  | STMW-2<br>(98.89)      | 20               | 5                 | 18.72             | 80.17       | No sheen or odor               | ND    | ND | ND     | ND     | ND     | ND   | NA  |
| 2/23/95  | STMW-3<br>(98.99)      | 20               | 5                 | Dry               | N/A         | N/A                            | NA    | NA | NA     | NA     | NA     | NA   | NA  |
| 7/26/95  |                        |                  |                   | Dry               | N/A         | N/A                            | NA    | NA | NA     | NA     | NA     | NA   | NA  |
| 10/19/95 |                        |                  |                   | Dry               | N/A         | N/A                            | NA    | NA | NA     | NA     | NA     | NA   | NA  |
| 1/31/96  |                        |                  |                   | Dry               | N/A         | N/A                            | NA    | NA | NA     | NA     | NA     | NA   | NA  |
| 9/09/96  |                        |                  |                   | Dry               | N/A         | N/A                            | NA    | NA | NA     | NA     | NA     | NA   | NA  |
| 12/17/96 |                        |                  |                   | Dry               | N/A         | N/A                            | NA    | NA | NA     | NA     | NA     | NA   | NA  |
| 4/21/97  |                        |                  |                   | Dry               | N/A         | N/A                            | NA    | NA | NA     | NA     | NA     | NA   | NA  |
| 2/23/95  | W-4<br>(90.50)         | 19               | Unknown           | 6.72              | 83.78       | Rainbow sheen spots<br>No odor | NA    | NA | NA     | NA     | NA     | NA   | NA  |
| 7/26/95  |                        |                  |                   | 15.51             | 74.99       | No sheen or odor               | 0.072 | ND | 0.0006 | 0.0007 | 0.0021 | NA   | NA  |
| 10/19/95 |                        |                  |                   | 18.03             | 72.47       | No sheen or odor               | ND    | ND | ND     | ND     | ND     | ND   | ND  |

**TPHd** - Total Petroleum Hydrocarbons as diesel  
**BTEX** - Benzene, Toluene, Ethylbenzene, Total Xylenes  
**TOG** - Total Oil & Grease  
**ND** - Not Detected  
**GW Elev.** - Groundwater Elevation

**TPHg** - Total Petroleum Hydrocarbons as gasoline  
**MTBE** - Methyl Tertiary Butyl Ether  
**N/A** - Not Applicable  
**NA** - Not Analyzed  
**Perf.** - Perforation

**TABLE 1 CONT'D**  
**GROUNDWATER MONITORING DATA (feet)**  
**AND ANALYTICAL RESULTS (mg/L)**

| Date     | Well No./<br>Elevation | Depth of<br>Well | Depth to<br>Perf. | Depth to<br>Water | GW<br>Elev. | Well Observation                      | TPHd | TPHg | B      | T      | E      | X      | MTBE | TOG |
|----------|------------------------|------------------|-------------------|-------------------|-------------|---------------------------------------|------|------|--------|--------|--------|--------|------|-----|
| 1/31/96  | W-4<br>(90.50)         | 19               | Unknown           | 1.98              | 88.52       | No sheen or odor                      | NA   | ND   | ND     | ND     | ND     | ND     | NA   | NA  |
| 9/09/96  |                        |                  |                   | 16.42             | 74.08       | No sheen or odor                      | NA   | ND   | ND     | ND     | ND     | ND     | ND   | NA  |
| 12/17/96 |                        |                  |                   | 3.99              | 86.51       | No sheen or odor                      | NA   | ND   | ND     | ND     | ND     | ND     | ND   | NA  |
| 4/21/97  |                        |                  |                   | 7.29              | 83.21       | No sheen or odor                      | ND   | ND   | ND     | ND     | ND     | ND     | ND   | NA  |
| 9/09/96  | STMW-4<br>(98.01)      | 40               | 20                | 25.89             | 72.12       | No sheen or odor                      | NA   | 19   | 0.016  | 0.03   | 0.044  | 0.19   | ND   | NA  |
| 12/17/96 |                        |                  |                   | 24.00             | 74.01       | No sheen or odor                      | NA   | 2.3  | 0.0007 | 0.0011 | 0.0011 | 0.0023 | ND   | NA  |
| 4/21/97  |                        |                  |                   | 17.74             | 80.27       | No sheen/Very light<br>petroleum odor | NA   | 0.98 | 0.0068 | 0.0008 | 0.0022 | 0.0045 | ND   | NA  |
| 9/09/96  | STMW-5<br>(97.81)      | 37               | 15                | 22.89             | 74.92       | No sheen or odor                      | NA   | 0.58 | 0.0023 | 0.0022 | 0.018  | 0.013  | ND   | NA  |
| 12/17/96 |                        |                  |                   | 22.45             | 75.36       | No sheen or odor                      | NA   | ND   | ND     | ND     | ND     | ND     | ND   | NA  |
| 4/21/97  |                        |                  |                   | 16.30             | 81.51       | No sheen or odor                      | NA   | ND   | ND     | ND     | ND     | ND     | ND   | NA  |

**TPHd** - Total Petroleum Hydrocarbons as diesel  
**BTEX** - Benzene, Toluene, Ethylbenzene, Total Xylenes  
**TOG** - Total Oil & Grease  
**ND** - Not Detected  
**GW Elev.** - Groundwater Elevation

**TPHg** - Total Petroleum Hydrocarbons as gasoline  
**MTBE** - Methyl Tertiary Butyl Ether  
**N/A** - Not Applicable  
**NA** - Not Analyzed  
**Perf.** - Perforation

**TABLE 1 CONT'D**  
**GROUNDWATER MONITORING DATA (feet)**  
**AND ANALYTICAL RESULTS (mg/L)**

| Date     | Well No./<br>Elevation | Depth of<br>Well | Depth to<br>Perf. | Depth to<br>Water | GW<br>Elev. | Well Observation | TPHd | TPHg | B  | T  | E  | X  | MTBE | TOG |
|----------|------------------------|------------------|-------------------|-------------------|-------------|------------------|------|------|----|----|----|----|------|-----|
| 9/09/96  | STMW-6<br>(91.33)      | 25               | 5                 | 17.16             | 74.17       | No sheen or odor | ND   | ND   | ND | ND | ND | ND | ND   | 1.7 |
| 12/17/96 |                        |                  |                   | 16.78             | 74.55       | No sheen or odor | ND   | ND   | ND | ND | ND | ND | ND   | ND  |
| 4/21/97  |                        |                  |                   | 15.15             | 76.18       | No sheen or odor | ND   | ND   | ND | ND | ND | ND | ND   | ND  |

**TPHd** - Total Petroleum Hydrocarbons as diesel  
**BTEX** - Benzene, Toluene, Ethylbenzene, Total Xylenes  
**TOG** - Total Oil & Grease  
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**TPHg** - Total Petroleum Hydrocarbons as gasoline  
**MTBE** - Methyl Tertiary Butyl Ether  
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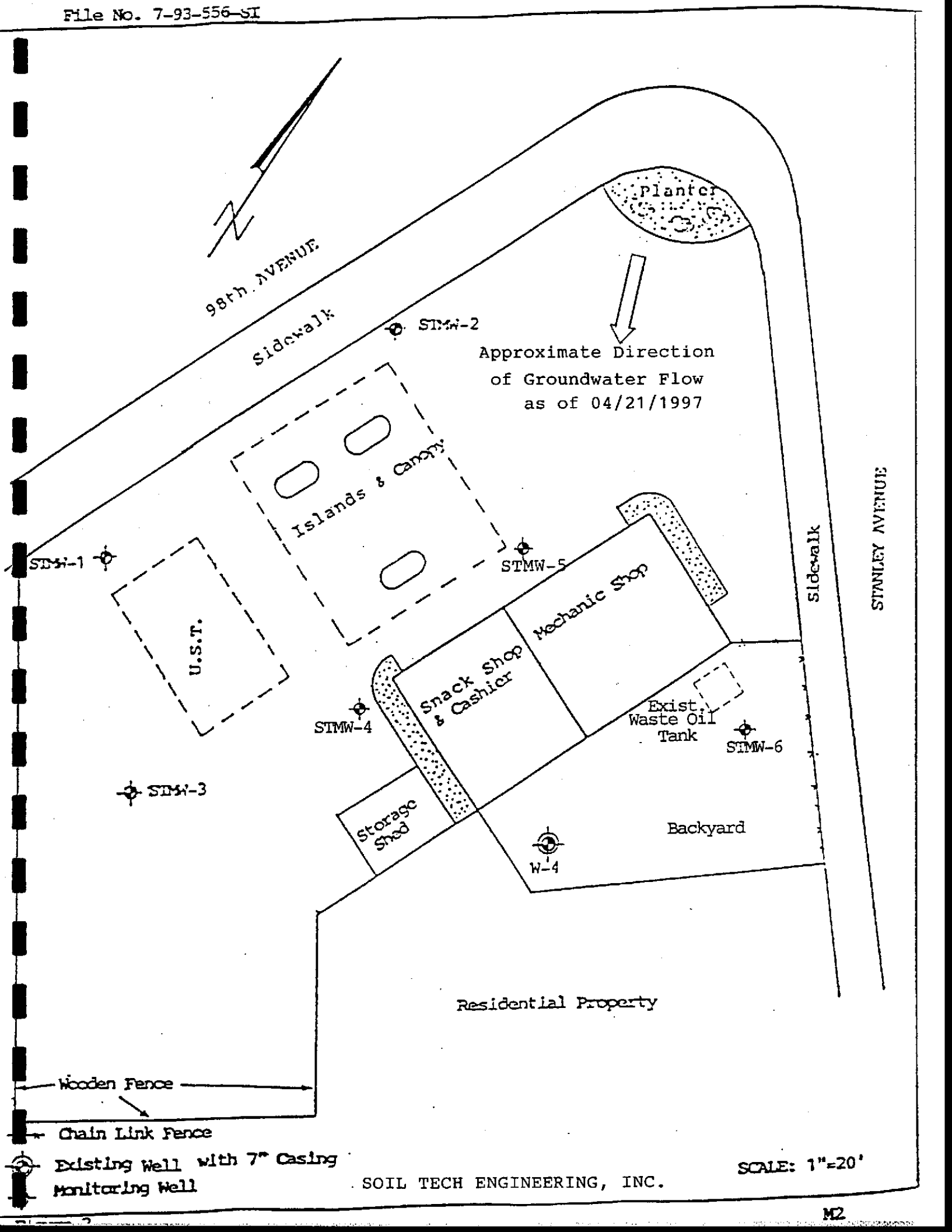
A P P E N D I X "B"



SOIL TECH ENGINEERING, INC.

Figure 1

M1



98th AVENUE

Sidewalk

Planter

STMW-2

Approximate Direction of Groundwater Flow as of 04/21/1997

Islands & Canopy

STMW-1

U.S.T.

STMW-5

Mechanic Shop

Sidewalk

STANLEY AVENUE

STMW-4

Snack Shop & Cashier

Exist. Waste Oil Tank

STMW-6

STMW-3

Storage Shed

Backyard

W-4

Residential Property

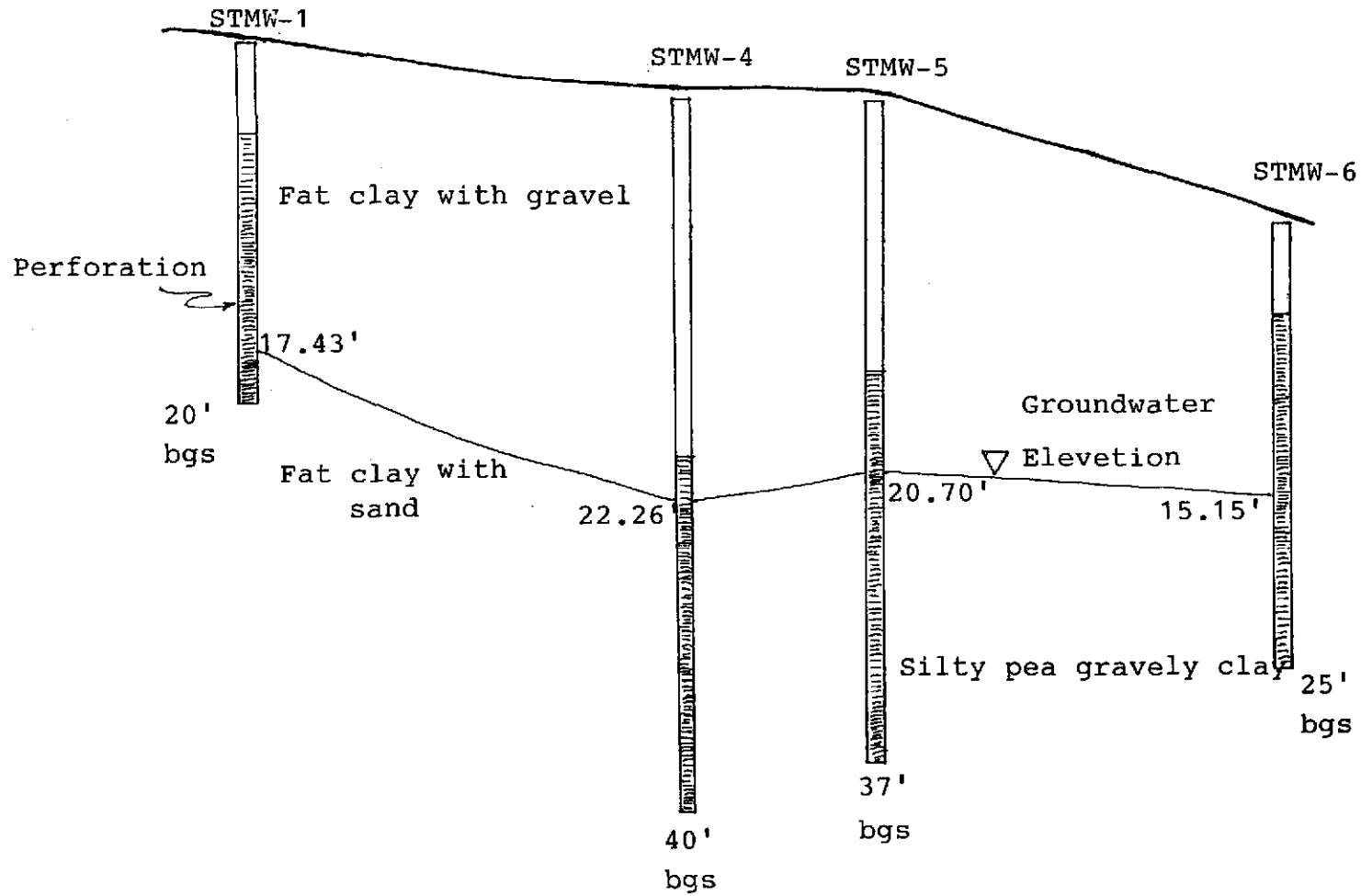
Wooden Fence

Chain Link Fence

Existing Well with 7" Casing  
Monitoring Well

SOIL TECH ENGINEERING, INC.

SCALE: 1"=20'



Geologic Cross-Section

Horizontal Scale: 1"=20'  
Vertical Scale: 1"=10'

A P P E N D I X "C"

## GROUNDWATER SAMPLING

Prior to collection of groundwater samples, all of the sampling equipment (i.e. bailer, cables, bladder pump, discharge lines and etc.) was cleaned by pumping TSP water solution followed by distilled water.

Prior to purging, the well "Water Sampling Field Survey Forms" were filled out (depth to water and total depth of water column were measured and recorded). The well was then bailed or pumped to remove four to ten well volumes or until the discharged water temperature, conductivity and pH stabilized. "Stabilized" is defined as three consecutive readings within 15% of one another.

The groundwater sample was collected when the water level in the well recovered to 80% of its static level.

Forty milliliter (ml.), glass volatile organic analysis (VOA) vials with Teflon septa were used as sample containers. The groundwater sample was decanted into each VOA vial in such a manner that there was a meniscus at the top. The cap was quickly placed over the top of the vial and securely tightened. The VOA vial was then inverted and tapped to see if air bubbles were present. If none were present, the sample was labeled and refrigerated for delivery under chain-of-custody to the laboratory. The label information would include a sample identification number, job identification number, date, time, type of analysis requested, and the sampler's name.

**A P P E N D I X "D"**

**SOIL TECH ENGINEERING, INC.**



# PRIORITY ENVIRONMENTAL LABS

Precision Environmental Analytical Laboratory

April 28, 1997

PEL # 9704037

SOIL TECH ENGINEERING

Attn: Noori Ameli

Re: Six water samples for Gasoline/BTEX with MTBE, Diesel, and Oil & Grease analyses.

Project name: 2740 98th Ave., - Oakland

Project number: 7-93-556-ST

Date sampled: Apr 21, 1997

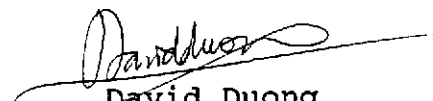
Date submitted: Apr 24, 1997

Date extracted: Apr 24-25, 1997

Date analyzed: Apr 24-25, 1997

RESULTS:

| SAMPLE I.D.        | MTBE<br>(ug/L) | Gasoline<br>(ug/L) | Diesel<br>(ug/L) | Benzene<br>(ug/L) | Toluene<br>(ug/L) | Ethyl Benzene<br>(ug/L) | Total Xylene<br>(ug/L) | Oil & Grease<br>(mg/L) |
|--------------------|----------------|--------------------|------------------|-------------------|-------------------|-------------------------|------------------------|------------------------|
| STMW-1             | N.D.           | N.D.               | ---              | N.D.              | N.D.              | N.D.                    | N.D.                   | ---                    |
| STMW-2             | N.D.           | N.D.               | ---              | N.D.              | N.D.              | N.D.                    | N.D.                   | ---                    |
| STMW-4             | N.D.           | 980                | ---              | 6.8               | 0.8               | 2.2                     | 4.5                    | ---                    |
| STMW-5             | N.D.           | N.D.               | ---              | N.D.              | N.D.              | N.D.                    | N.D.                   | ---                    |
| STMW-6             | N.D.           | N.D.               | N.D.             | N.D.              | N.D.              | N.D.                    | N.D.                   | N.D.                   |
| W-4                | 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.                   |
| Spiked Recovery    | ---            | 81.9%              | 89.9%            | 93.6%             | 80.2%             | 87.4%                   | 93.1%                  | ---                    |
| Detection limit    | 0.5            | 50                 | 50               | 0.5               | 0.5               | 0.5                     | 0.5                    | 0.5                    |
| Method of Analysis | 602            | 5030 / 8015        | 3510 / 8015      | 602               | 602               | 602                     | 602                    | 5520 C & F             |

  
 David Duong  
 Laboratory Director



PROJ. NO. 7-93-556-ST NAME 2740 98th. Ave. OAKLAND

SAMPLERS: (Signature) *N. Ameli*

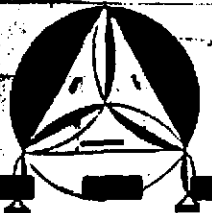
CON-TAINER

ANALYSES REQUESTED  
 TPHG/BTEX  
 MTBE  
 TPHD  
 TO&G

PEL # 9704037  
 INV # 27665

| NO. | DATE    | TIME             | SOIL | WATER | LOCATION | CON-TAINER | ANALYSES REQUESTED | TPHG/BTEX | MTBE | TPHD | TO&G |
|-----|---------|------------------|------|-------|----------|------------|--------------------|-----------|------|------|------|
| 1   | 4/21/97 | 10 <sup>52</sup> |      | ✓     | STMW-1   | 1          | ✓                  | ✓         |      |      |      |
| 2   |         | 10 <sup>52</sup> |      | ✓     | STMW-2   | 1          | ✓                  | ✓         |      |      |      |
| 3   |         | 14 <sup>10</sup> |      | ✓     | STMW-4   | 1          | ✓                  | ✓         |      |      |      |
| 4   |         | 13 <sup>30</sup> |      | ✓     | STMW-5   | 1          | ✓                  | ✓         |      |      |      |
| 5   |         | 11 <sup>40</sup> |      | ✓     | STMW-6   | 3          | ✓                  | ✓         | ✓    | ✓    |      |
| 6   |         | 12 <sup>15</sup> |      | ✓     | W-4      | 1          | ✓                  | ✓         |      |      |      |

|   |             |  |                                 |             |                          |
|---|-------------|--|---------------------------------|-------------|--------------------------|
| Relinquished by: (Signature)<br><i>N. Ameli</i> | Date / Time | Received by: (Signature)                                   | Relinquished by: (Signature)    | Date / Time | Receive by: (Signature)  |
| Relinquished by: (Signature)                    | Date / Time | Received by: (Signature)                                   | Relinquished by: (Signature)    | Date / Time | Received by: (Signature) |
| Relinquished by: (Signature)                    | Date / Time | Received for Laboratory by: (Signature)<br><i>David...</i> | Date / Time<br>04/24/97 8:35 AM | Remarks     |                          |



# SOIL TECH ENGINEERING

Environmental and Geotechnical Engineers