

File No. 8-90-418-SI

QUARTERLY GROUNDWATER SAMPLING  
FOR KAMUR INDUSTRIES CAR WASH  
LOCATED AT 2351 SHORE LINE DRIVE  
ALAMEDA, CALIFORNIA  
NOVEMBER 12, 1991

PREPARED FOR:  
MR. MURRAY STEVENS  
KAMUR INDUSTRIES, INC.  
2351 SHORE LINE DRIVE  
ALAMEDA, CALIFORNIA 94501

BY:  
SOIL TECH ENGINEERING, INC.  
298 BROKAW ROAD  
SANTA CLARA, CALIFORNIA 95050

SOIL TECH ENGINEERING, INC.



KAMUR INDUSTRIES INC.

2351 Shoreline Dr., Alameda, CA 94501 - (415) 523-7866

91 523-5 111:29

Mr. Lowell Miller  
Alameda County Health Care Services  
Hazardous Waste Program  
80 Swan Way, Rm 200  
Oakland, CA 94621

Subject: Former South Shore Car Wash Location  
2351 Shoreline Drive  
Alameda, CA.

Dear Mr. Miller:

Enclosed are the results of the quarterly well sampling done October 21, 1991 at the subject location. The samples were taken and the laboratory reports were compiled by our consultant, Soil Tech Engineering.

I am sending this information to you, as I understand that you have taken over the projects that were handled by Cynthia Chapman. If this is not the case, I would appreciate your forwarding them on to the appropriate person.

The next sampling will be done on about January 15th, 1992. Please let me know if I can be of further assistance.

Sincerely,

Murray T. Stevens

MTS:khs

Attachment

cc: Mr. Gil Jensen, Alameda County District Attorney  
Consumer and Environmental Protection  
Mr. Lester Feldman, RWQCB  
Mr. Michael Dosen, Hanson Investment Corp.  
Mr. Frank Hamedl-Fard, Soil Tech Engineering  
Mr. Alan D. Gibbs, Cayton Environmental

TABLE OF CONTENTS

Page No.

LETTER OF TRANSMITTAL	1-2
INTRODUCTION	3
BACKGROUND	3-5
FIELD ACTIVITIES	5
Groundwater Monitoring	5
Groundwater Sampling and Results	5-6
CHEMICAL ANALYSIS DATA	6-7
SUMMARY	7
RECOMMENDATION	7-8
LIMITATIONS	8
SCHEDULE	8
TABLE 1 - GROUNDWATER MONITORING DATA	9
TABLE 2 - GROUNDWATER ANALYTICAL RESULTS	10-11

APPENDIX "A"

Figure 1 - Vicinity Map	12
Figure 2 - Site Plan	13

APPENDIX "B"

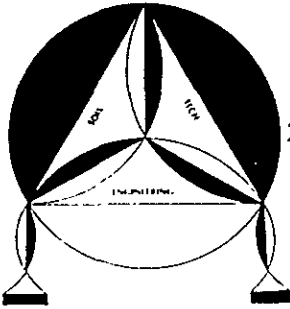
Groundwater Sampling	14
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APPENDIX "C"

Carter Analytical Laboratory Report with Chain-of-Custody

APPENDIX "D"

Uniform Hazardous Waste Manifest



# SOIL TECH ENGINEERING

Soil, Foundation and Geological Engineers

298 BROKAW ROAD, SANTA CLARA, CA 95050 ■ (408) 496-0265 OR (408) 496-0266

November 12, 1991

File No. 8-90-418-SI

Kamur Industries, Inc.  
2351 Shore Line Drive  
Alameda, California 94501

ATTENTION: MR. MURRAY STEVENS

SUBJECT: QUARTERLY GROUNDWATER MONITORING AND SAMPLING  
FOR KAMUR INDUSTRIES CAR WASH  
Located at 2351 Shore Line Drive, in  
Alameda, California

Dear Mr. Stevens:

This report presents the results of the second quarterly groundwater sampling conducted by Soil Tech Engineering, Inc. (STE), on October 21, 1991, at the subject site (Figure 1).

Four monitoring wells (STMW-1 to STMW-4) are located on-site (Figure 2). This quarterly monitoring and sampling was conducted in accordance with STE's recommendations made in the report titled "Preliminary Subsurface Environmental Assessment", dated July 2, 1991. During this quarter's reporting period, the following field activities were performed:

- Measured depth-to-groundwater in all wells.
- Purged each monitoring well prior to sampling.


File No. 8-90-418-SI


- Sampled each monitoring well.
- Submitted water samples to a state-certified laboratory for analysis.
- Reviewed results and prepared a report of the investigation.

If you have any questions or require additional information, please feel free to contact our office at your convenience.

Sincerely,

SOIL TECH ENGINEERING, INC.

  
FRANK HAMEDI-FARD  
GENERAL MANAGER

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

QUARTERLY MONITORING AND SAMPLING REPORT  
KAMUR INDUSTRIES, INC.  
CAR WASH FACILITY  
LOCATED AT 2351 SHORE LINE DRIVE  
ALAMEDA, CALIFORNIA  
NOVEMBER 12, 1991

**INTRODUCTION:**

This report presents the second quarterly groundwater monitoring and sampling program of on-site wells performed by Soil Tech Engineering, Inc. (STE), for the Kamur Industries, Inc., car wash facility located at 2351 Shore Line Drive, in Alameda, California (Figure 1). The monitoring and sampling program was conducted in accordance with our recommendations described in STE's report, dated July 2, 1991.

**BACKGROUND:**

The site is located at 2351 Shore Line Drive, in Alameda, California (Figure 1), and was formerly used as a gasoline service station and car wash. In July 1990, three underground gasoline tanks (10,000 gallons each) were removed by Zacor Corporation. Soil sampling was conducted by Environmental Bio-Systems, Inc. (EBS). The soil sample analytical results taken beneath the underground tank showed high concentrations of Total Petroleum Hydrocarbons as gasoline (TPHg), which ranged from 360 parts per million (ppm) to a maximum of 9,500 ppm.

In addition to tank removal, EBS Consultants used a hand auger to conduct additional shallow soil sampling of the undisturbed area surrounding the former tank excavation. The undisturbed soil analytical results showed moderate levels of TPHg and BTEX. EBS did not conduct a groundwater investigation.

Alameda County Health Care Services--Department of Environmental Health (ACHCS-DEH) requested a preliminary soil/groundwater investigation including the removal of contaminated soil and the further delineation of the extent of petroleum hydrocarbons in the soil and groundwater.

In August 1990, Kamur Industries, Inc., retained STE to conduct further investigation as requested by the ACHCS-DEH.

STE prepared a work plan (dated August 30, 1990) to conduct further investigation for local agency approval. STE performed a preliminary subsurface investigation as follows:

- Task 1: Removed contaminated soil to the depth feasible and arranged for its proper disposal.
- Task 2: Drilled ten exploratory borings.
- Task 3: Installed four monitoring wells.

The preliminary investigation is described in STE's report, dated July 2, 1991, entitled "Preliminary Subsurface Environmental

Assessment at Kamur Industries, Inc., Car Wash. . ." The report recommended quarterly monitoring and sampling of the four on-site wells.

In July 1991, quarterly groundwater monitoring and sampling of the four wells (STMW-1 to STMW-4) started. The results of the first quarterly sampling are summarized in STE's report, dated July 30, 1991.

**FIELD ACTIVITIES:**

**Groundwater Monitoring:**

The four on-site wells, STMW-1 to STMW-4, were monitored on October 21, 1991, using an electronic probe capable of measuring free-floating product and determining depth-to-water. The wells were surveyed to the nearest 0.01 elevation. A light sheen and strong petroleum odors were detected in well STMW-1 and STMW-3 only. Table 1 summarizes the monitoring data.

The elevation data indicated that the groundwater flow direction beneath the site was southwest.

**Groundwater Sampling and Results:**

On October 21, 1991, following visual groundwater monitoring, each well was purged and sampled in accordance with STE's Standard Operation Procedures (Appendix "B"), which follow state and local



agency guidelines. The samples were submitted for analysis to a state-certified laboratory, accompanied by a chain-of-custody record.

All groundwater extracted from the wells during the purging and sampling process was stored in 55-gallons drums meeting DOT specifications and remain on-site pending proper disposal.

The samples were analyzed for Total Petroleum Hydrocarbons as gasoline (TPHg), Benzene, Toluene, Ethylbenzene and Xylenes (BTEX), per EPA Methods 5030 and 8020. The samples were also analyzed for Volatile Organic Compounds (VOC) per EPA Methods 8010. A selected sample (STMW-3) was analyzed for Total Petroleum Hydrocarbons as diesel (TPHd) and Total Oil and Grease (TOG).

**CHEMICAL ANALYSIS DATA:**

Well STMW-2 showed TPHg, Toluene, Ethylbenzene and Xylenes below detection limit, whereas the Benzene level was 0.004 milligrams per liter (mg/L). Low to moderate concentrations of TPHg were detected in wells STMW-1, STMW-3 and STMW-4, ranging from 0.186 mg/L to a maximum of 165 mg/L. Benzene levels in three wells (STMW-1, STMW-3 and STMW-4) ranged from 0.011 mg/L to a maximum of 19.6 mg/L.

Ethylbenzene concentrations were below the detection limits in all four wells. Low levels of Toluene and Xylenes were detected in wells STMW-1, STMW-3 and STMW-4. TPH as diesel was not detected in well STMW-3, but the TOG concentration in well STMW-3 was 20 mg/L.

Volatile Organic Compounds were not detected in two of the wells (STMW-2 and STMW-4) sampled. Carbon Tetrachloride was the only VOC detected in wells STMW-1 and STMW-3, and the concentrations were 40 and 48 parts per billion (ppb).

The analytical results are summarized in Table 2. The laboratory results and chain-of-custody records are in Appendix "C".

**SUMMARY:**

A comparison of the recent results with the first quarter (July 1991) results showed an increase in the concentrations of TPH as gasoline, Benzene and Total Xylenes in wells STMW-1, STMW-3 and STMW-4. However, the levels were below the April 1991 results. Well STMW-2 continued to show non-detectable levels for TPHg, Toluene, Ethylbenzene, and Xylenes, but Benzene increased from non-detectable to 0.004 mg/L. TOG concentrations in well STMW-3 also increased from non-detectable to 20 mg/L. The only VOC detected, Carbon Tetrachloride, was found at low levels in wells STMW-1 and STMW-3.

**RECOMMENDATION:**

Based on the recent analytical data obtained from sampling and evaluation, STE recommends continuing the current quarterly

File No. 8-90-418-SI

monitoring and sampling of the on-site wells for two more quarters as recommended in STE's preliminary site assessment, dated July 2, 1991. At the end of the 12-month monitoring and sampling period, the program will be re-evaluated.

A copy of this report should be sent to the Alameda County Health Department and to the California Regional Water Quality Control Board--San Francisco Bay Region.

**LIMITATIONS:**

This report was prepared in accordance with the currently accepted standards for environmental investigations. The contents of this report reflect the conditions of the subject site at this particular time. No other warranties, expressed or implied, as to the professional advice provided are made.

**SCHEDULE:**

The next monitoring and sampling will be conducted in February 1992.

TABLE 1  
GROUNDWATER MONITORING DATA

Date	Well No.	Well Head Elevation (feet)	Depth-to Water (feet)	Water Elevation (feet)	Petroleum Thickness	Petroleum Odor
7/8/91	STMW-1	99.46	7.54	91.92	Sheen	Strong
	STMW-2	98.12	6.23	91.89	ND	ND
	STMW-3	99.90	7.96	91.94	ND	Mild
	STMW-4	98.78	6.90	91.88	ND	ND
10/21/91	STMW-1	99.46	7.63	91.83	L. Sheen	Strong
	STMW-2	98.12	6.33	91.79	ND	ND
	STMW-3	99.90	<u>8.05</u>	91.85	Sheen	Strong
	STMW-4	98.78	<u>6.98</u>	91.80	ND	ND

L. Sheen = Light Sheen  
ND = Not Detected

TABLE 2  
GROUNDWATER ANALYTICAL RESULTS

I. Dissolved Petroleum Hydrocarbons in Milligrams Per Liter (mg/L)

Well No.	Date	TPHg	TPHd	B	T	E	X	TOG
STMW-1	4/05/91	180	NA	11	20	3.2	18	NA
	7/04/91	58	NA	14	7	2.7	8.3	NA
	10/21/91	112.6	NA	19.6	1.9	ND	26.4	NA
STMW-2	4/05/91	ND	NA	ND	ND	ND	ND	NA
	7/04/91	ND	NA	ND	ND	ND	ND	NA
	10/21/91	ND	NA	0.004	ND	ND	ND	NA
STMW-3	4/05/91	260	NA	20	34	3.6	19	NA
	7/04/91	66	11	11	17	1.9	8.9	ND
	10/21/91	165	ND	48.5	19	ND	46.0	20
STMW-4	4/05/91	ND	NA	0.3	0.3	ND	0.7	NA
	7/04/91	ND	NA	ND	ND	ND	ND	NA
	10/21/91	0.186	NA	0.011	0.005	ND	0.037	NA

TPHg = Total Petroleum Hydrocarbons as gasoline  
 TPHd = Total Petroleum Hydrocarbons as diesel  
 BTEX = Benzene, Toluene, Ethylbenzene, Xylenes  
 NA = Not Analyzed  
 ND = Not Detected (Below Detection Limit)

TABLE 2 CONT'D  
GROUNDWATER ANALYTICAL RESULTS

II. Volatile Organic Compounds (VOC's) Results

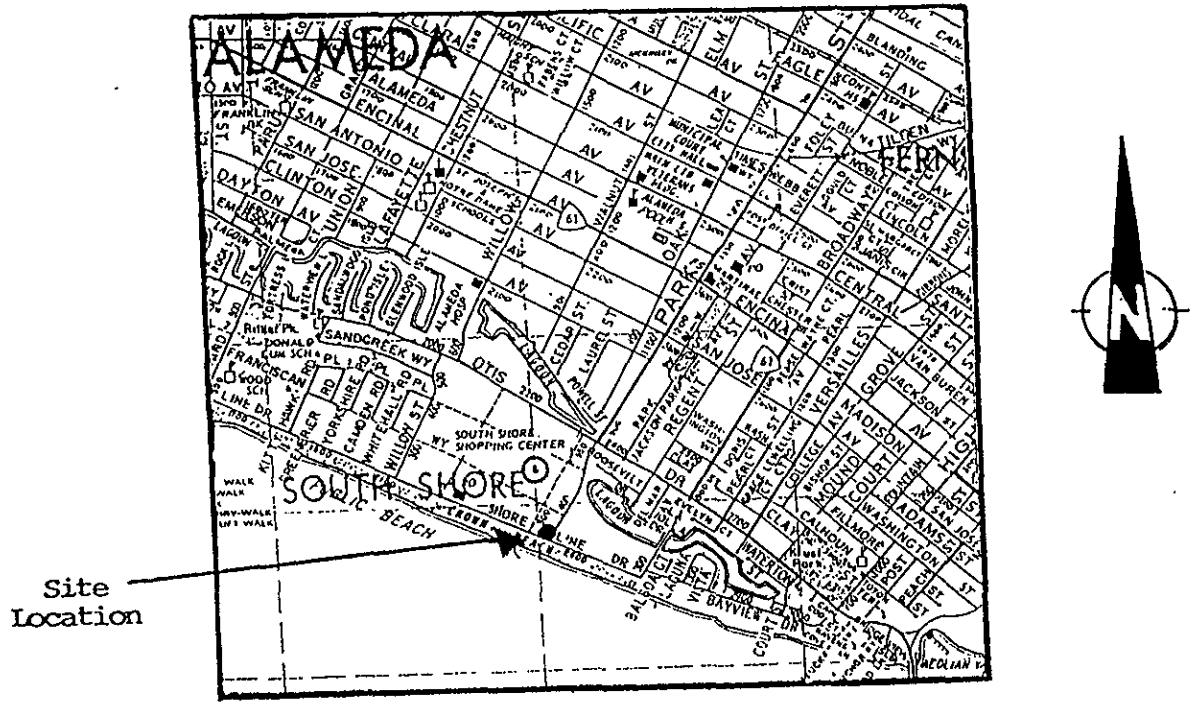
Date	Monitoring Well No.	VOC Compounds Detected Per EPA Method 8010 Results in Parts Per Billion (ppb)	DHS-DWS (ppb)
4/5/91	STMW-1	1,2-Dichloroethane	350
		Trichloroethylene	4
		1,1,2-Trichloroethane	0.5
		(PEC) Tetrachloroethene	0.9
7/4/91	STMW-1	cis-1,2-Dichloroethene	1
	STMW-1	1,2-Dichloroethane	290
10/21/91	STMW-1	Carbon Tetrachloride	48
4/5/91	STMW-2	1,2-Dichloroethane	8
		Trichloroethylene	4
		Tetrachloroethene	27
7/4/91	STMW-2	Trichloroethene (Trichloroethylene)	1.3
	STMW-2	Tetrachloroethene	18
10/21/91	STMW-2	None Detected	
4/5/91	STMW-3	1,2-Dichloroethane	450
	STMW-3	Methylene Chloride	9
7/4/91	STMW-3	Trichloroethene (Trichloroethylene)	230
		Carbon Tetrachloride	40
10/21/91	STMW-3		
4/5/91	STMW-4	None Detected	
7/4/91	STMW-4	None Detected	
10/21/91	STMW-4	None Detected	

DHS-DWS = Department of Health Services--Drinking Water Standards

File No. 8-90-418-SI

A P P E N D I X "A"

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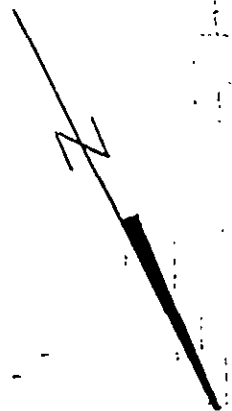


Thomas Brothers Map 1982 Edition  
Alameda - Contra Costa Counties Map

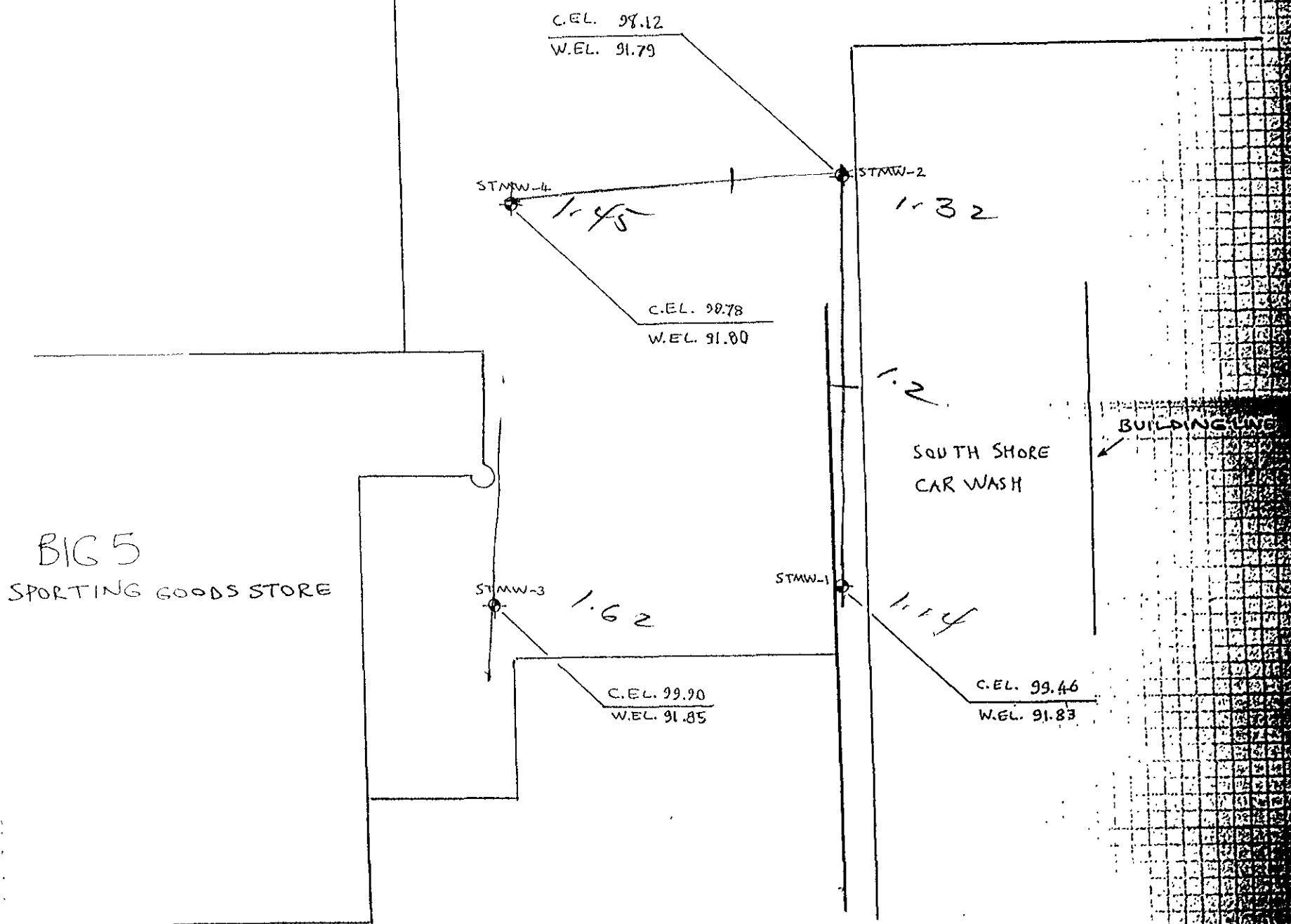
Figure 1



# SHORE LINE DR



APPROXIMATE  
DIRECTION OF  
GROUND WATER  
FLOW AS 10-21-91



2351 SHORE LINE DR ALAMEDA CA

1"=30'

DRAWN BY N.A.

PROJECT NO 8-90-418-51

FIG-2

10-21-91

SOILTECH ENGINEERING INC.  
298 BROKAW RD. SANTA CLARA CA 95050

File No. 8-90-418-SI

A P P E N D I X "B"

SOIL TECH ENGINEERING, INC.

### 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.

File No. 8-90-418-SI

A P P E N D I X "C"

SOIL TECH ENGINEERING, INC.

ENVIRONMENTAL ANALYSIS REPORT

CARTER ANALYTICAL LABORATORY, INC.

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590 DIVISION STREET • CAMPBELL, CA 95008 • (408) 364-3030 • FAX (408) 866-0319

ANALYSIS REPORT  
FOR

Soil Tech Engineering  
298 Brokaw Road  
Santa Clara, CA 95050

CONTACT: Mr. Frank Hamide

DATE: 1/06/91

CHAIN OF CUSTODY ID NO: 8-90-118-SI

ORDER NO: 1769-JF

P.O. NO: 8-90-118-SI

SITE DESCRIPTION: Kamur Industries  
2351 Shore Line Drive  
Alameda

---

SAMPLE DESCRIPTION:

Water  
Sampled: 10/21/91  
Received: 10/25/91  
Analyzed: 11/04/91  
Number of Samples: 20

REQUESTED ANALYSIS:

Methods: Total Petroleum Hydrocarbons as Gasoline (TPH-G)  
as Diesel (TPH-D) and Benzene, Toluene, Ethyl Benzene,  
and Xylenes (BTEX), EPA 8010 and Standard Method 418.1  
Modified (Gravimetric).

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The analyses reported are considered accurate. Should you wish further support for the reported data, submit your requirements in writing within 10 days. It is Carter Analytical Labs intent to give you complete satisfaction. Please reference the order number when communicating with us. The invoice is due and payable within 30 days from invoice date.

Hazardous Materials Certification No: 304 • Drinking Water Certification No: 953  
from the  
State of California • Department of Health Services

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CARTER ANALYTICAL LABORATORY, INC.

590 DIVISION STREET • CAMPBELL, CA 95008 • (408) 364-3030 • FAX (408) 866-0319

<u>Sample</u>	<u>Customer Label</u>	<u>Description</u>
L1	STMW-1	Water
L2	STMW-1	Water (Duplicate of L1)
L3	STMW-1	Water (Duplicate of L1)
L4	STMW-1	Water (Duplicate of L1)
L5	STMW-1	Water (Duplicate of L1)
L6	STMW-2	Water
L7	STMW-2	Water (Duplicate of L6)
L8	STMW-2	Water (Duplicate of L6)
L9	STMW-2	Water (Duplicate of L6)
L10	STMW-2	Water (Duplicate of L6)
L11	STMW-3	Water
L12	STMW-3	Water (Duplicate of L11)
L13	STMW-3	Water (Duplicate of L11)
L14	STMW-3	Water (Duplicate of L11)
L15	STMW-3	Water (Duplicate of L11)
L16	STMW-4	Water
L17	STMW-4	Water (Duplicate of L16)
L18	STMW-4	Water (Duplicate of L16)
L19	STMW-4	Water (Duplicate of L16)
L20	STMW-1	Water (Duplicate of L16)

Hydrocarbons and BTEX Analysis of Water:

<u>Sample Number</u>	<u>TPH-G (ug/L)</u>	<u>TPH-D (ug/L)</u>	<u>Benzene (ug/L)</u>	<u>Toluene (ug/L)</u>	<u>Ethyl Benzene (ug/L)</u>	<u>Xylenes (ug/L)</u>
L1	112,600.	---	19,600.	1,900.	LDL	26,400.
L6	LDL	---	4.2	LDL	LDL	LDL
L11	165,000.	LDL	48,500.	19,000.	LDL	46,000.
L16	186.	---	11.6	5.1	LDL	37.8

DL:	50.0	50.0	0.5	0.5	0.5	0.7
AR (%):	84.5	91.9	---	---	---	---

LDL indicates less than the detection limit  
 AR indicates average recovery

Sample	Customer Label	Description
L1	STMW-1	Water
L2	STMW-1	Water (Duplicate of L1)
L3	STMW-1	Water (Duplicate of L1)
L4	STMW-1	Water (Duplicate of L1)
L5	STMW-1	Water (Duplicate of L1)
L6	STMW-2	Water
L7	STMW-2	Water (Duplicate of L6)
L8	STMW-2	Water (Duplicate of L6)
L9	STMW-2	Water (Duplicate of L6)
L10	STMW-2	Water (Duplicate of L6)
L11	STMW-3	Water
L12	STMW-3	Water (Duplicate of L11)
L13	STMW-3	Water (Duplicate of L11)
L14	STMW-3	Water (Duplicate of L11)
L15	STMW-3	Water (Duplicate of L11)
L16	STMW-4	Water
L17	STMW-4	Water (Duplicate of L16)
L18	STMW-4	Water (Duplicate of L16)
L19	STMW-4	Water (Duplicate of L16)
L20	STMW-4	Water (Duplicate of L16)

EPA Method 8010 Analysis

Compound	L1	L6	L11	L16	Detection Limit
Benzyl chloride	LDL	LDL	LDL	LDL	1.
Bis(2-chloroethoxy)methane	LDL	LDL	LDL	LDL	1.
Bromobenzene	LDL	LDL	LDL	LDL	1.
Bromodichloromethane	LDL	LDL	LDL	LDL	0.10
Bromoform	LDL	LDL	LDL	LDL	0.20
Bromomethane	LDL	LDL	LDL	LDL	1.0
Carbon tetrachloride	48	LDL	40	LDL	0.12
Chlorobenzene	LDL	LDL	LDL	LDL	0.25
Chloroethane	LDL	LDL	LDL	LDL	0.52
2-Chloroethylvinyl ether	LDL	LDL	LDL	LDL	0.13
Chloroform	LDL	LDL	LDL	LDL	0.65
1-Chlorohexane	LDL	LDL	LDL	LDL	1.
Chloromethane	LDL	LDL	LDL	LDL	0.10
Chloromethyl methyl ether	LDL	LDL	LDL	LDL	1.
Chlorotoluene	LDL	LDL	LDL	LDL	1.
Dibromochloroethane	LDL	LDL	LDL	LDL	0.09
Dibromomethane	LDL	LDL	LDL	LDL	1.
1,2-Dichlorobenzene	LDL	LDL	LDL	LDL	1.
1,3-Dichlorobenzene	LDL	LDL	LDL	LDL	1.



Sample	Customer_Label	Description
L1	STMW-1	Water
L2	STMW-1	Water (Duplicate of L1)
L3	STMW-1	Water (Duplicate of L1)
L4	STMW-1	Water (Duplicate of L1)
L5	STMW-1	Water (Duplicate of L1)
L6	STMW-2	Water
L7	STMW-2	Water (Duplicate of L6)
L8	STMW-2	Water (Duplicate of L6)
L9	STMW-2	Water (Duplicate of L6)
L10	STMW-2	Water (Duplicate of L6)
L11	STMW-3	Water
L12	STMW-3	Water (Duplicate of L11)
L13	STMW-3	Water (Duplicate of L11)
L14	STMW-3	Water (Duplicate of L11)
L15	STMW-3	Water (Duplicate of L11)
L16	STMW-4	Water
L17	STMW-4	Water (Duplicate of L16)
L18	STMW-4	Water (Duplicate of L16)
L19	STMW-4	Water (Duplicate of L16)
L20	STMW-4	Water (Duplicate of L16)

EPA Method 8010 Analysis - cont.

Compound	L1	L6	L11	L16	Detection Limit
1,4-Dichlorobenzene	LDL	LDL	LDL	LDL	0.24
Dichlorodifluoromethane	LDL	LDL	LDL	LDL	1.
1,1-Dichloroethane	LDL	LDL	LDL	LDL	0.07
1,2-Dichloroethane	LDL	LDL	LDL	LDL	0.03
1,1-Dichloroethylene	LDL	LDL	LDL	LDL	0.13
trans-1,2-Dichloroethylene	LDL	LDL	LDL	LDL	0.10
Dichloromethane	LDL	LDL	LDL	LDL	1.
1,2-Dichloropropane	LDL	LDL	LDL	LDL	0.04
trans-1,3-Dichloropropylene	LDL	LDL	LDL	LDL	0.34
1,1,1,2-Tetrachloroethane	LDL	LDL	LDL	LDL	1.
1,1,2,2-Tetrachloroethane	LDL	LDL	LDL	LDL	0.03
Tetrachloroethylene	LDL	LDL	LDL	LDL	0.02
1,1,1-Trichloroethane	LDL	LDL	LDL	LDL	0.13
1,1,2-Trichloroethane	LDL	LDL	LDL	LDL	0.02
Trichloroethylene	LDL	LDL	LDL	LDL	0.11
Trichlorofluoromethane	LDL	LDL	LDL	LDL	0.02
Trichloropropane	LDL	LDL	LDL	LDL	0.02
Vinyl chloride	LDL	LDL	LDL	LDL	0.02

Percent Recover: 100.00% (100.00%)

LDL indicates a result below the detection limit.

Sample	Customer Label	Description
L1	STMW-1	Water
L2	STMW-1	Water (Duplicate of L1)
L3	STMW-1	Water (Duplicate of L1)
L4	STMW-1	Water (Duplicate of L1)
L5	STMW-1	Water (Duplicate of L1)
L6	STMW-2	Water
L7	STMW-2	Water (Duplicate of L6)
L8	STMW-2	Water (Duplicate of L6)
L9	STMW-2	Water (Duplicate of L6)
L10	STMW-2	Water (Duplicate of L6)
L11	STMW-3	Water
L12	STMW-3	Water (Duplicate of L11)
L13	STMW-3	Water (Duplicate of L11)
L14	STMW-3	Water (Duplicate of L11)
L15	STMW-3	Water (Duplicate of L11)
L16	STMW-4	Water
L17	STMW-4	Water (Duplicate of L16)
L18	STMW-4	Water (Duplicate of L16)
L19	STMW-4	Water (Duplicate of L16)
L20	STMW-4	Water (Duplicate of L16)

Standard Method 418.1 Modified (Gravimetric) Analysis

Sample	TOG (mg/L)
L11	20

=====

CARTER ANALYTICAL LABORATORY, INC.

*A. E. Robinson*

Dr. A. Edward Robinson  
Laboratory Manager

*G. G. Smith*

G. G. Smith

PROJ NO. 8-90-418-SI  
 NAME: Kamur Industries  
 2351 Shore Line Drive, Alameda

SAMPLERS (Signature)  
 Noori Ameli

CON-TAINER

ANALYSES REQUESTED  
 TPHd  
 TPHa/BTEX  
 TOG  
 8010

REMARKS

NO	DATE	TIME	SOIL	WATER	LOCATION	CON-TAINER	ANALYSES REQUESTED	REMARKS
L1	10/21/91	10:30		✓	STMW-1	5	✓	L2-L5 Dups.
L6	10/21/91	11:30		✓	STMW-2	5	✓	L7-L10 Dups.
L11	10/21/91	1:30		✓	STMW-3	5	✓	L12-L15 Dups.
L16	10/21/91	2:30		✓	STMW-4	5	✓	L17-L20 Dups.

Relinquished by: (Signature) Diep Nguyen	Date / Time 10/25/91 1:44	Received by: (Signature) Dyanma Valentin 732	Relinquished by: (Signature) AeroSpec. Del.	Date / Time 10/25 2:45	Received by: (Signature) Deborah Richmond
Relinquished by: (Signature) Deborah Richmond	Date / Time 11/1 8:50	Received by: (Signature) Frankie	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature) Frankie	Date / Time 11/5 4:00	Received for Laboratory by: (Signature) Deborah Richmond	Date / Time 11/5 4:00	Remarks N.T.A. cold.	Samples rec'd.



**SOIL TECH ENGINEERING**

Soil, Foundation and Geological Engineers

