

Weyerhaeuser  
Paper Company

1801 Hibbard Street  
P.O. Drawer X  
Alameda, California 94501  
Tel (510) 523 6121



August 21, 1992

Alameda County Environmental Health Department  
80 Swan Way, Rm. 200  
Oakland, CA 94621

Dear Sir/Madam:

Enclosed, please find a copy of subsurface investigation and first quarter sampling conducted by Soil Tech Engineering at our facility in Alameda, California.

If I can be of any assistance, please let me know.

Sincerely,

WEYERHAEUSER PAPER COMPANY

Steven A. Mindt  
Production Manager

SAM:jnq

File No. 10-91-483-MW

FIRST QUARTERLY GROUNDWATER MONITORING  
AND SAMPLING FOR WEYERHAEUSER PAPER COMPANY  
LOCATED AT 1801 HIBBARD STREET  
ALAMEDA, CALIFORNIA  
AUGUST 10, 1992

PREPARED FOR:  
WEYERHAEUSER PAPER COMPANY  
1801 HIBBARD STREET  
P. O. BOX DRAWER X  
ALAMEDA, CALIFORNIA 94501

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

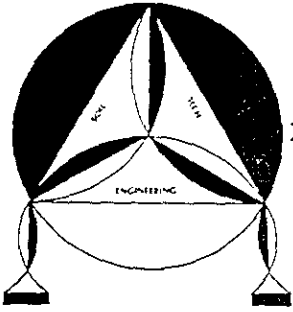
SOIL TECH ENGINEERING, INC.

File No. 10-91-483-MW

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# SOIL TECH ENGINEERING

Soil, Foundation and Geological Engineers

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

*Applied Waters (408) 727-5555*

August 10, 1992

File No. 10-91-483-MW

Weyerhaeuser Paper Company  
1801 Hibbard Street  
P.O. Box Drawer X  
Alameda, California 94501

ATTENTION: MR. ERNESTO JACINTO

SUBJECT: QUARTERLY GROUNDWATER MONITORING AND SAMPLING  
FOR WEYERHAEUSER PAPER COMPANY PROPERTY.  
Located at 1801 Hibbard Street, in  
Alameda, California

Dear Mr. Jacinto:

This report presents the results of first quarterly ground-water monitoring and sampling conducted by Soil Tech Engineering, Inc. (STE), on July 31, 1992, at the subject site (Figure 1).

## SITE DESCRIPTION:

The site is located at 1801 Hibbard Street, in Alameda, California. The area in the vicinity of the site consist mainly of light commercial (Figure 1).

## BACKGROUND:

On February 7, 1991, four underground tanks (one 10,000 gallon diesel and three 1,000 gallon gasoline) were removed from the

property by Minter and Fahy Construction (MFC). The tanks were located near the warehouse building and shed (Figure 2). Following the tank removal, MFC collected soil samples. Initial soil analytical results showed high levels of Total Petroleum Hydrocarbons as gasoline (TPHg) ranging from 220 to 3,000 milligrams per kilogram (mg/Kg). Low to moderate levels of Benzene, Toluene, Ethylbenzene and Total Xylenes (BTEX) were also detected.

A water sample, taken by MFC from the diesel tank excavation on February 28, 1991, showed TPH as diesel at 3.6 mg/L.

Due to presence of elevated TPH as gasoline at the former gasoline tanks area, additional excavation was conducted by MFC on February 27 and 28, 1991. Soil sampling of the sidewalls showed TPHg ranging from 43 to 2,600 mg/Kg. BTEX levels ranged from 0.006 to 25 mg/Kg. In addition, moderate levels of Total Oil and Grease (TOG) and some metals were also detected. The water sample was also taken from the excavation which detected moderate levels of TPHg (22 mg/L) and TPHd (0.19 mg/L).

Due to presence of elevated hydrocarbons detected in the sidewall, MFC excavated additional three feet of soil from the excavation on April 13, 1991. Soil and water samples were collected from the excavation. Soil analytical results showed low levels of all dissolved hydrocarbons constituents analyzed. Water samples taken from the excavation continued to show elevated levels of TPHg and Benzene.

*← How low? Exactly what conc.?*

In October 1991, STE was retained to perform a preliminary subsurface investigation in the vicinity of the former underground tank complex.

Soil Tech Engineering, Inc. (STE), conducted the field work on December 3 and 4, 1991, by installing three monitoring wells in the vicinity of the former underground tank area. The approximate location of the wells (STMW-1 to STMW-3) and the former tanks area are shown in Figure 2.

Two of the three monitoring wells (STMW-2 and STMW-3) did detect low to moderate levels of hydrocarbons in the water sample. Detail of STE's preliminary subsurface investigation is described in a report, dated January 20, 1992. Due to presence of hydrocarbons, STE recommended additional investigation to define the extent of dissolved hydrocarbons plume per ACEHD and CRWQCB requirements.

Three additional wells (STMW-4 to STMW-6) were installed on-site as shown in Figure 2. Four of the wells (STMW-1 to STMW-4) did detect low to moderate levels of dissolved hydrocarbons. Detail of STE's additional subsurface investigation is described in a report, dated May 18, 1992.

This quarterly monitoring and sampling was conducted in accordance with STE's recommendations made in "Preliminary Subsurface Investigation at Former Underground Gasoline Tank Area", dated January 20, 1992, and "Additional Subsurface Investigation at Former Underground Gasoline Tank Area", dated May 18, 1992.

**SCOPE OF WORK:**

The scope of work consist of:

- Monitored the on-site wells STMW-1 to STMW-6 for presence of any floating petroleum product (FFP) and measured the depth-to-water table.
- Purged the monitoring wells prior to sampling.
- Sampled the monitoring wells.
- Submitted water samples to a State-Certified laboratory for Total Petroleum Hydrocarbons as diesel and gasoline (TPHd and TPHg), Benzene, Toluene, Ethylbenzene, Total Xylenes (BTEX), and Total Oil and Grease (TOG).
- Reviewed results and prepared a report of the investigation.

**CURRENT FIELD WORK:**

**GROUNDWATER MONITORING:**

On July 31, 1992, the STE staff monitored the six on-site wells (STMW-1 to STMW-6) to measure water depths and check for the presence of FFP and/or petroleum odor. No FFP or petroleum odor were detected during monitoring of wells except detected a mild petroleum odor in well STMW-3, only. Table 1 summarizes the depth of groundwater measurements and observations made.

The groundwater elevation data were used to determine groundwater direction. The groundwater flow direction beneath the site was in west to southwesterly direction as of July 31, 1992 (Figure 2).

**GROUNDWATER SAMPLING:**

Following groundwater monitoring, the wells were purged at least five well volumes and sampled in accordance with STE's Standard Operation Procedures (see Appendix "B"), which contains state and local guidelines for sampling the monitoring wells.

The water samples were placed in a cool ice chest and submitted to Priority Environmental Labs, a State-Certified laboratory with a chain-of-custody.

The samples were analyzed for Total Petroleum Hydrocarbons as diesel and gasoline (TPHd and TPHg) per EPA Method 5030/8015, for Benzene, Toluene, Ethylbenzene, Total Xylenes (BTEX) per EPA Method 602, and Total Oil and Grease (TOG) per EPA Method 503.

**ANALYTICAL RESULTS:**

The analytical results showed TPH as diesel concentrations were below laboratory detection limit in all six wells. TPH as gasoline level ranged from non-detectable to a maximum 1.5 milligrams per liter (mg/L). Benzene levels ranged from non-detectable to a maximum of 0.0061 mg/L; Toluene from non-detectable



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to a maximum of 0.0053 mg/L; Ethylbenzene from non-detectable to a maximum of 0.01 mg/L; Total Xylenes from non-detectable to a maximum of 0.026 mg/L and Total Oil and Grease from non-detectable to a maximum of 4.4 mg/L.

**SUMMARY:**

The first quarterly monitoring showed no FFP or petroleum odor in any of the wells except detected a mild petroleum odor in well STMW-3.

Water analytical results showed TPH as diesel concentrations to be non-detectable in all six wells. Low levels of TPH as gasoline were detected in four wells (STMW-1 to STMW-4), and BTEX were also detected in the same four wells.

TOG was detected in wells STMW-1 to STMW-3 and STMW-5 only. The TOG concentrations in the four wells ranged from 0.6 milligrams per liter (mg/L) to a maximum of 4.4 m/L in well STMW-2. TOG was not detected in wells STMW-4 and STMW-6.

No TPH or BTEX were detected in the down-gradient wells STMW-5 and STMW-6. In summary, the four on-site wells STMW-1 through STMW-4 continued to detect a low levels of dissolved hydrocarbons.

**RECOMMENDATION:**

Due to presence of low levels of dissolved hydrocarbons, STE recommends the continuation of quarterly monitoring for three more

quarters. The proposed program should then be re-evaluated at the end of one year to assess a need for additional investigation or remediation.

**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.

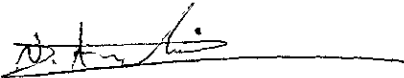
File No. 10-91-483-MW

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.

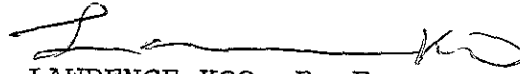
If you have any questions or require additional information, please feel free to contact our office at your convenience.

Sincerely,

SOIL TECH ENGINEERING, INC.



NOORODDIN AMELI  
STAFF ENGINEER



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



FRANK HAMEDI-FARD  
GENERAL MANAGER

TABLE 2  
GROUNDWATER ANALYTICAL RESULTS  
IN  
MILLIGRAMS PER LITER (mg/l)

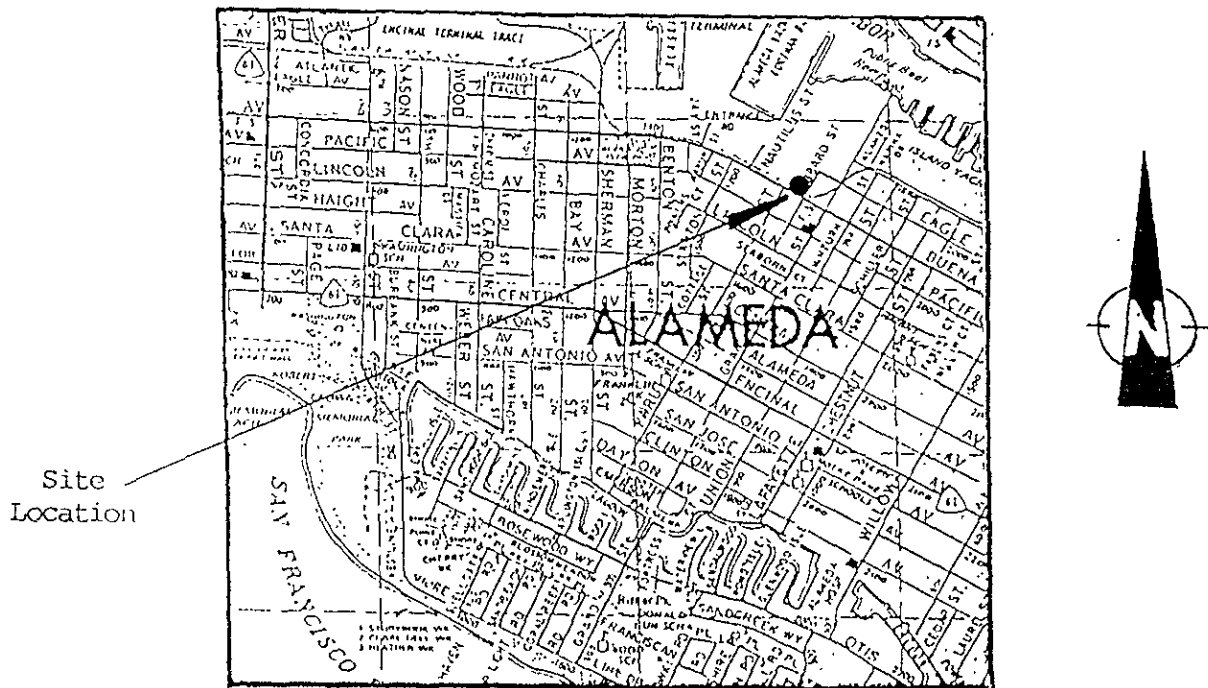
Date	Well No.	TPHd	TPHg	B	T	E	X	TOG
7/31/92	STMW-1	ND	0.31	0.002	0.0018	0.0012	0.0045	0.6
	STMW-2	ND	1.5	0.0033	0.0053	0.01	0.026	4.4
	STMW-3	ND	1.4	0.0019	0.0051	0.0083	0.023	0.6
	STMW-4	ND	1.3	0.0061	0.0043	0.0073	0.021	ND
	STMW-5	ND	ND	ND	ND	ND	ND	0.7
	STMW-6	ND	ND	ND	ND	ND	ND	ND
4/27/92	STMW-1	ND	0.15	0.0015	0.0012	0.0018	0.002	ND
	STMW-2	ND	1.1	0.0094	0.0053	0.002	0.024	ND
	STMW-3	2.0	9.4	0.057	0.05	0.0046	0.22	ND
	STMW-4	ND	0.79	0.0077	0.0026	0.002	0.011	ND
	STMW-5	ND	ND	ND	ND	ND	ND	ND
	STMW-6	ND	ND	ND	ND	ND	ND	ND

TPHd - Total Petroleum Hydrocarbons as diesel  
 TPHg - Total Petroleum Hydrocarbons as gasoline  
 BTEX - Benzene, Toluene, Ethylbenzene, Total Xylenes  
 TOG - Total Oil and Grease  
 ND - Not Detected (Below Laboratory Detection Limit)

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A P P E N D I X "A"

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Thomas Brothers Map 1982 Edition  
Alameda - Contra Costa Counties

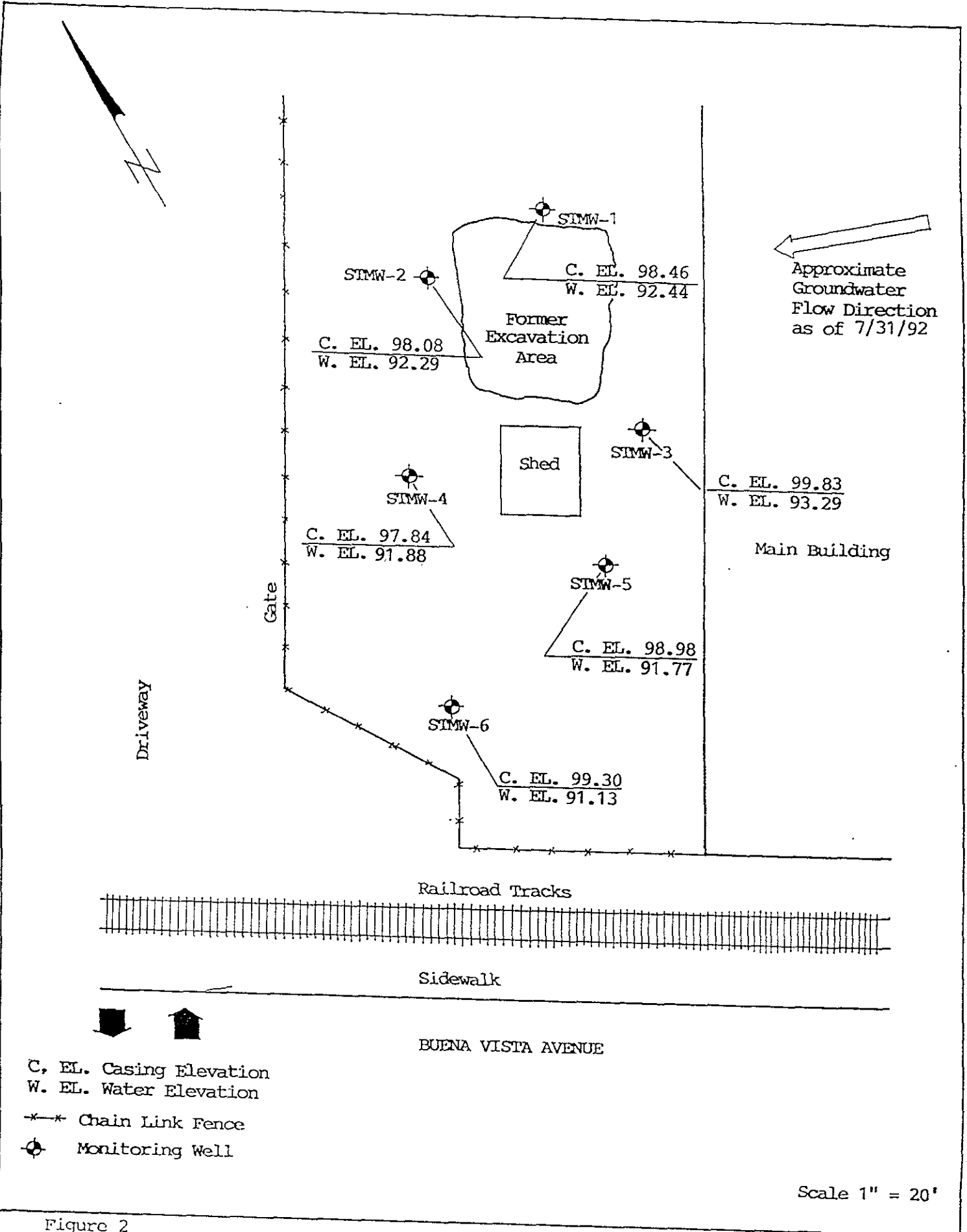


Figure 2

File No. 10-91-483-MW

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.

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A P P E N D I X "C"

SOIL TECH ENGINEERING, INC.



# PRIORITY ENVIRONMENTAL LABS

Precision Environmental Analytical Laboratory

August 04, 1992

PEL # 9208002

SOIL TECH ENGINEERING

Attn: Noori Ameli

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

Project name: 1801 Hibbard St. -Alameda

Project number: 10-91-483-MW

Date sampled: July 31, 1992


Date submitted: Aug 03, 1992

Date extracted: Aug 03-04, 1992

Date analyzed: Aug 03-04, 1992

## RESULTS:

SAMPLE I.D.	Gasoline (ug/L)	Diesel (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethyl Benzene (ug/L)	Total Xylenes (ug/L)	Oil & Grease (mg/L)
STMW-1	310	N.D.	2.0	1.8	1.2	4.5	0.6
STMW-2	1500	N.D.	3.3	5.3	10	26	4.4
STMW-3	1400	N.D.	1.9	5.1	8.3	23	0.6
STMW-4	1300	N.D.	6.1	4.3	7.3	21	N.D.
STMW-5	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	0.7
STMW-6	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.
Spiked Recovery	95.2%	90.9%	95.3%	94.2%	102.1%	96.7%	---
Duplicate Spiked Recovery	94.8%	102.5%	87.6%	89.4%	95.8%	93.2%	---
Detection limit	50	50	0.5	0.5	0.5	0.5	0.5
Method of Analysis	5030 / 8015	3510 / 8015	602	602	602	602	5520 C & F

  
 David Duong  
 Laboratory Director

PROJ. NO. 10-91-483-MW NAME 1801 Hibbard St. ALAMEDA

SAMPLERS: (Signature) *N. Amali*

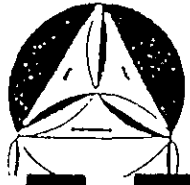
NO.	DATE	TIME	SOIL	WATER	LOCATION
1	7/31/92	14 <sup>40</sup>		✓	STMW-1
2	7/31/92	13 <sup>35</sup>		✓	STMW-2
3	7/31/92	14 <sup>25</sup>		✓	STMW-3
4	7/31/92	13 <sup>05</sup>		✓	STMW-4
5	7/31/92	12 <sup>40</sup>		✓	STMW-5
6	7/31/92	11 <sup>55</sup>		✓	STMW-6

CON-TAINER

ANALYSES REQUESTED  
 TPHG/BTEXX  
 TPHD  
 TO&G

REMARKS

Relinquished by: (Signature) <i>N. Amali</i>	Date / Time 8/3/92 9 <sup>47</sup>	Received by: (Signature) <i>Victor Duong</i>	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received by: (Signature) <i>VICTOR DUONG</i>	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time 8/3/92 9 <sup>47</sup>	Received for Laboratory by: (Signature) <i>PEL</i>	Date / Time	Remarks	



**SOIL TECH ENGINEERING**  
 Soil, Foundation and Geological Engineers

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

PROJ. NO. 10-91-483-MW NAME 1801 Hibbard St. ALAMEDA

PEL # 9208002  
INV # 22973

SAMPLERS: (Signature)

*N. Amali*

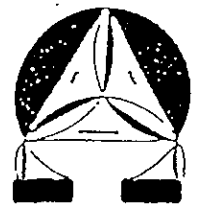
ANALYSES REQUESTED @  
TPHG/BTEXX  
TPHD  
TO&G

CON-TAINER

REMARKS

NO.	DATE	TIME	SOIL	WATER	LOCATION	CON-TAINER	ANALYSES REQUESTED @	TPHG/BTEXX	TPHD	TO&G	REMARKS
1	7/31/92	14 <sup>00</sup>		✓	STMW-1	3	✓	✓	✓		
2	7/31/92	13 <sup>35</sup>		✓	STMW-2	3	✓	✓	✓		
3	7/31/92	14 <sup>25</sup>		✓	STMW-3	3	✓	✓	✓		
4	7/31/92	13 <sup>05</sup>		✓	STMW-4	3	✓	✓	✓		
5	7/31/92	12 <sup>40</sup>		✓	STMW-5	3	✓	✓	✓		
6	7/31/92	11 <sup>55</sup>		✓	STMW-6	3	✓	✓	✓		

Relinquished by: (Signature) <i>N. Amali</i>	Date / Time 8/3/92 9 <sup>47</sup>	Received by: (Signature) <i>Victor Duong</i>	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by (Signature)	Date / Time	Received by: (Signature) VICTOR DUONG	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by (Signature)	Date / Time 8/3/92 9 <sup>47</sup>	Received for Laboratory by: (Signature) <i>PEL</i>	Date / Time	Remarks	



**SOIL TECH ENGINEERING**  
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